Facilitator Guide Book

for EdAI Facilitators & Anyone interested in Teacher PD for AI Literacy

Table of Contents

This document is a guide for facilitators leading versions of the Everyday AI (EdAI) teacher professional development (PD) experience. It is also for anyone thinking about or interested in teacher PD for artificial intelligence (AI) literacy.

- **Please do not** think of these materials as answer keys, scripts, or directives.
- **Please do** use the resources here as tips, hints, or suggestions to inform your way of knowing, being and doing. For example, knowing your teachers, being present during the PD, and doing the activities with your teachers.

Specific examples are provided to guide your thinking and planning, but these are guidelines and should not be used as directives. PDs can and should differ from each other so as to be attuned to the needs of the learning needs of the teachers in attendance.

"PDs can and should differ from each other so as to be attuned to the needs of the learning needs of the teachers in attendance."

WHY DO WE NEED THIS GUIDE?

With this guide, the EdAI PD makes AI literacy accessible to everyone. Specifically, it guides those who aim to prepare middle school teachers to advance AI literacy using the Developing AI Literacy (DAILy) Curriculum. In the DAILy curriculum and EdAI PD, prior knowledge of AI is not assumed, nor is it assumed that readers have a common background in education theory. For all of these reasons, this guide aims to be accessible to all educators by being explicit about the pedagogy, practices, and content facilitators can use to support teacher learning. The following is what we hope all EdAI facilitators know before starting.

THE CURRICULUM

Everyday AI is preceded by its curriculum, the Developing AI Literacy (DAILy) curriculum, which was developed in 2020 [1]. The DAILy curriculum aims to foster middle and early high school students' AI literacy. Lessons and activities encourage learners to think about AI as a socio-technical system with personal, career, and societal implications. The design of the curriculum was based on our definition of AI literacy wherein students must learn three core domains to become AI literate citizens: 1) technical concepts, 2) ethical and societal implications, and 3) AI's impact on careers. There is also a unit on creativity with AI and a new unit (developed in 2024) on Large Language Models (LLMs) in education. In total the curriculum includes 22 lessons and lasts 30 hours.

"In total the curriculum includes 22 lessons and lasts 30 hours"

The DAILy curriculum features activities that teach five key AI concepts:

1. a general introduction to AI,

2. logic systems,

3. supervised learning,

4. neural networks (NN), and

5. generative AI:
   a. Generative Adversarial Networks (GANs),
   b. Large Language Models (LLMs)

Within each topic, students learn. . .

- the key concepts (e.g., processes, steps),
- to investigate AI tools for possible bias in the datasets and algorithms and to consider mitigation strategies,
- to discuss the societal and ethical impacts of biased AI systems,
- to connect to their daily lives and future selves, and
- to engage in "AI and my future" career exploration activities that support students to become aware of AI's impact on jobs, recognize their own strengths and interests, and realize the importance of developing technical skills in the context of ongoing change and adaptation in today's jobs.

An example from the DAILy curriculum

Introducing the concept of supervised learning

Students first learn how to use Google's Teachable Machine* platform to train an AI model to detect gestures, in this case, whether a person's thumb is up or down. Students then reflect on their experience to understand a) why labeled data are needed for classification, and b) what takes place during the training and testing phases in the process of making an AI model. Students then explore bias in their trained AI models and experiment with how to re-curate the dataset to mitigate bias.

* Resource Link: https://teachablemachine.withgoogle.com/

A vignette from the DAILy curriculum

After listening to her teacher's brief introduction of the activity, Thumbs-up/Thumbs-down, Tania navigates to Google's Teachable Machine website, where she starts to play with the video feature by peering into her school computer's camera and making faces. She completes the first part of the assignment by holding a thumbs-up gesture up to the camera, taking about 146 rapid shot pictures. She does the same with a thumbs-down gesture, quickly taking about 42 pictures. She then trains her model and begins testing by holding her thumb up to the camera, switching it from thumbs-up to thumbs-down. She notices that Teachable Machine is frequently labeling her thumbs-down gesture as thumbs-up, making her thumbs-down classifications incorrect. She wonders how that happened and turns her attention over to her datasets. Teachable Machine allows Tania to look through the pictures she took of her thumbs as she scans through them, she realizes that she took far more pictures of her thumbs-up gesture than she did of her thumbs-down gesture. She decides to add more pictures of her thumbs-down to the dataset and gets ready to take more pictures. . .

The DAILy curricular approach [1] was informed by research on interactive instructional approaches in AI and computer science education. DAILy uses an ethics framing [7] to expose learners to AI-enhanced careers and relate AI to their daily lives, current events, and real-world problems in ways that engage students from diverse backgrounds and raise their perceptions of the relevance of AI in their lives.

Through hands-on experiences with AI tools like Teachable Machine, where they build and evaluate models, learners become curious about the technology's inner workings [9].

Through participatory simulations, students develop mental models of the mechanics and algorithms behind machine learning, while also learning how biases can infiltrate AI systems via data, algorithms, and models [3, 4, 5, 6].

Creating AI applications with tools like AppInventor empowers students, fostering self-efficacy and broadening their perspectives on their future potential [8].

See the supplementary materials for detailed information of the curriculum.

Ethics and AI	AI Core Concepts	Creativity in AI	AI Career Futures
0.1 What is AI?	**0.4** Decision Trees	**2.1** What are GANs?	**0.6** Career Daydream
0.2 Algorithms as Opinions	**1.1** Supervised Learning	**2.2** How do GANs Work?	**1.4** Inventory of Me
0.3 Ethical Matrix	**1.2** Neural Networks	**2.4** AI Generated Art	**1.5** Planting My STEM Job
0.5 Investigating Bias	**1.3** Classifying vs. Generating A	**2.5** What are Deep Fakes?	**2.8** AI's Impact on my Future Job(s)
2.3 Unanticipated Consequences		**2.6** Spread of Misinformation	**3.3** Roadmap to my Future Job
3.1 Environmental Impact of AI		**2.7** Generate a Story	
3.2 Youtube Redesign			

"DAILy uses an ethics framing [7] to expose learners to AI-enhanced careers and relate AI to their daily lives, current events, and real-world problems in ways that engage students from diverse backgrounds and raise their perceptions of the relevance of AI in their lives."

WHAT IS EVERYDAY AI (EDAI)?

Everyday (EdAI) is a carefully designed and tested professional development program for teachers. EdAI aims to prepare educators to make AI education accessible, relevant, and meaningful to the daily life of the everyday middle school or high school learner. This involves advancing teacher AI literacy, by which we mean...
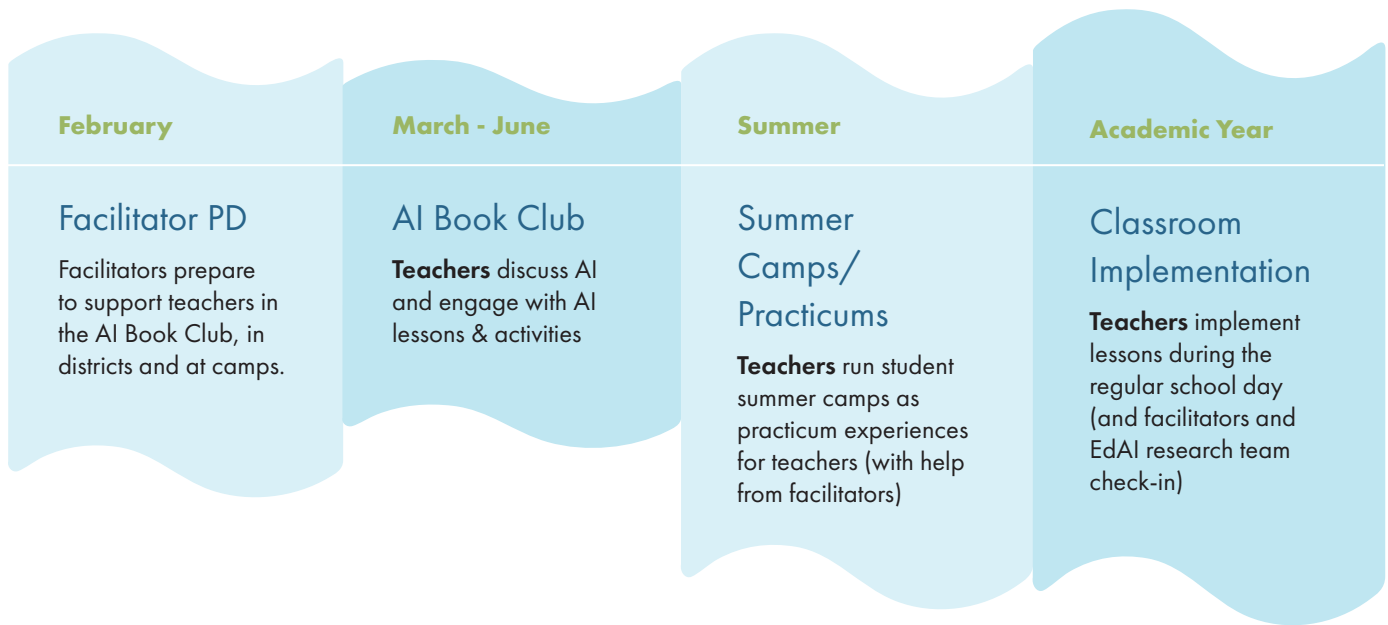
- a fundamental understanding of AI technical concepts, AI related ethics, and how AI impacts careers and futures

- a competency with AI concepts in ways that are relevant to becoming an effective teacher of foundational AI concepts as well as an informed citizen and critical consumer of AI

EdAI prepares teachers to teach AI concepts in their classrooms through three waves of professional development (PD):

Wave 1: The AI Book Club introduces teachers to foundational AI concepts using a scaffolded approach that 1) introduces AI concepts through shared reading of portions of the book *Artificial Intelligence: A Guide for Thinking Humans* by Dr. Melanie Mitchel, 2) creates time for teachers to discuss and reflect on the reading synchronously with a community of peers, 3) allows teachers time to explore the concept as a learner through activities from the DAILy curriculum, 4) creates time for teachers to reflect on their learning experiences and discuss how they might implement the concepts, activities, and lessons in their classroom(s) for their diverse learners.

Wave 2: The Practicum is an opportunity for teachers to practice teaching AI concepts and implementing activities from the DAILy curriculum by co-teaching with a small group of peers (roughly 3-4) from the AI Book Club, who have together formed a community of practice. The Practicum experience is an opportunity for teachers to learn to apply the knowledge gleaned during the AI Book Club in a supportive learning environment.
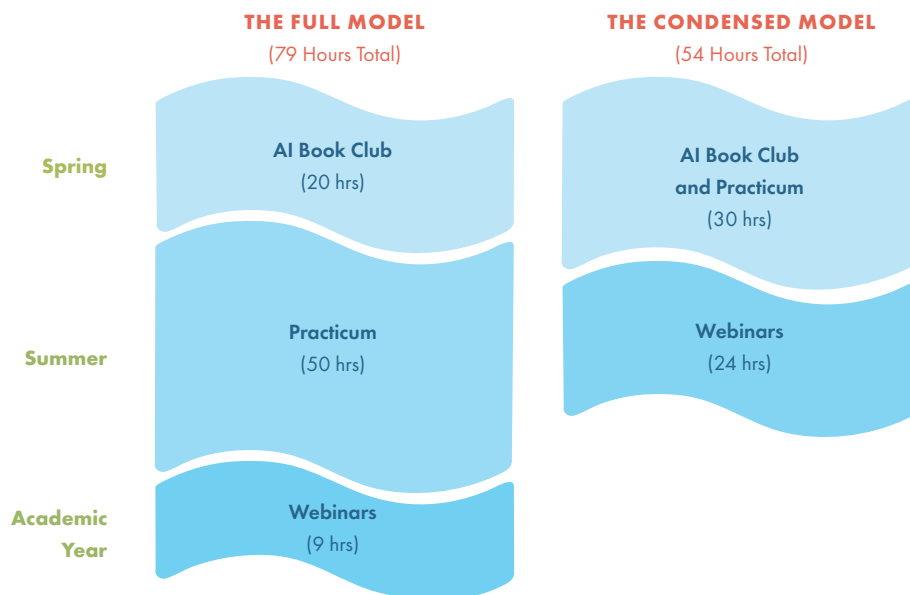
Wave 3: The academic year Webinars are implemented throughout the academic year to sustain the community of practice that formed during the AI Book Club and the Practicum throughout the school year as teachers implement the DAILy curriculum in their classrooms. Webinars include two components: 1) community connections and 2) resource & skill building. Community connections focused on creating opportunities for teachers to hear each other's voices and connect with each other. Activities involved checking-in, sharing stories of implementation experiences from the classroom, and showcasing examples of anonymized student work. Resource & Skill Building involved Facilitators' leading refresher activities from the DAILy curriculum, sharing updates on new AI technologies, and answering teachers' questions.

February	March - June	Summer	Academic Year
Facilitator PD Facilitators prepare to support teachers in the AI Book Club, in districts and at camps.	**AI Book Club** **Teachers** discuss AI and engage with AI lessons & activities	**Summer Camps/ Practicums** **Teachers** run student summer camps as practicum experiences for teachers (with help from facilitators)	**Classroom Implementation** **Teachers** implement lessons during the regular school day (and facilitators and EdAI research team check-in)

We have piloted these waves in two different models:

A. **The Full Model (79 hours total):** Begins with 10 1.5-hour weekly virtual **AI Book Club** meetings with 30-45 mi of asynchronous work between meetings (20 hours total), during which time all 4 DAILy curricular units (Unit 0 - Unit 3) are covered. The AI Book Club is followed by at least one 1-week in-person youth AI summer camp (aka. the **Practicum**) for teachers to practice implementing the DAILy curriculum in groups of 3 or more with a Facilitator (40 hours + teacher prep = roughly 50 hours total). Finally, 6 monthly 1.5-hour **webinars** are implemented during the academic year (9 hours total).

B. **The Condensed Model (54 hours total):** This model was developed to meet the needs of educators who would not be able to participate in the Full Model, but could attend a traditionally structured summer teacher PD experience. The condensed model begins with a 1-week in-person professional development experience (30 hours total) that introduces content from the DAILy curriculum's Unit 0 and Unit 1 in the form of both the **AI Book Club** and the **Practicum;** however, in this model the Practicum is a 45-minute teaching practice session in which teachers practice teaching each other. Finally, 16 1.5-hour **webinars** – introducing content from Unit 2 and Unit 3 – occur in 4 monthly series with 4 webinars in a series (e.g., Sept = 4 webinars, Nov = 4 webinars, Jan = 4 webinars, Feb = 4 webinars) (24 hours total).

Figure 1. A visualization of the three waves of the Everyday AI (EdAI) professional development experience in two distinct models: the Full Model and the Condensed Model.

Spring — AI Book Club (20 hrs)

Summer — Practicum (50 hrs)

Academic Year — Webinars (9 hrs)

Spring — AI Book Club and Practicum (30 hrs)

Summer — Webinars (24 hrs)

Testing the Full Model offered empirical evidence of the model's effectiveness, including: gains in middle school student and teacher AI literacy, and in teacher self-efficacy in teaching AI (see The Research Behind Everyday AI for details on research results). Whereas, the Condensed Model is (as of 2025) still being studied and has not yet been proven effective.

WHAT IS AI EDUCATION?

AI education the field of study that addresses both how to teach AI and how to use AI in teaching and learning. AI Literacy is the subset of topics in AI education that are fundamental for all participants in contemporary society to understand. These topics are necessary because AI impacts everyone's daily lives.

AI Literacy encompasses:

- Understanding of AI technical concepts
- Understanding of AI related ethics
- Understanding of how AI impacts careers and futures

Our AI Literacy curriculum, called DAILy (viewed at Everyday-AI.org), focuses on learning about AI, and not necessarily learning with AI. Instead, DAILy teaches fundamental concepts that will help users understand how AI does what it does. We believe these fundamental concepts will help learners understand and make sense of how AI works, even as the tools availabl change and evolve.

DAILy uses a suite of tools (including online interactive activities, some which use AI and some that do not), participatory simulations, as well as hands-on / unplugged activities to teach young learners (middle or high school) foundational AI concepts such as how AI works, how AI can become biased, how we can be creative with AI, and how AI impacts our daily lives and society.

AI literacy is relevant to everyone. Here is why:

- Most everyone interacts with AI daily, often without realizing it.

- Everyone needs to know that AI has the potential for benefits AND harms. AI offers entertainment and education, but also misinformation and harm due to algorithmic bias.

- Understanding the fundamentals of AI is important for making informed decisions and participating in civic, work, and social life.

- AI is becoming ubiquitous; it is being integrated into all fields of studies and all aspects of life. AI is interdisciplinary. AI Literacy can be taught across subject areas.

Everyday AI aims to make AI Literacy education accessible, relevant, and meaningful to everyone's everyday life.

The Research Behind Everyday AI

We have studied the DAILy curriculum's implementation and integration by 28 teachers in three school districts across the United States, focusing on teachers' attitudes toward AI and teachers' self-efficacy of teaching AI. The teachers represented a variety of disciplines, including Science, Computer Science, English Language Arts, and Library/Media Literacy. The teachers taught a diverse group of students, the vast majority of whom were from groups traditionally underrepresented in STEM and computing education. Empirical research examining teachers' implementation practices, as well as the effectiveness of the DAILy curriculum and the EdAI PD during the years of 2021-2023 has shown the following:

- **The DAILy curriculum is an engaging and effective AI literacy curriculum for middle schoolers**
Our research team's implementations of the curriculum in the more controlled settings of summer camps have shown that middle schoolers were highly engaged in the DAILy activities and achieved significant gains in their AI literacy knowledge and skills [11].

- **Middle schoolers can learn AI literacy concepts from DAILy and EdAI teachers during the regular school day**
EdAI teacher-led implementations of DAILy curriculum in their classrooms (after completing the EdAI PD) produced moderate learning gains in students' understanding of AI concepts [10]. On average, students showed gains in fundamental AI literacy concepts (AI general concepts, logic systems, machine learning, supervised learning, GANs) after learning the DAILy curriculum.

- **Teachers learn AI concepts from the AI Book Club and grow their confidence in this knowledge during the Practicum**
We found that participation in the EdAI PD led to continued teacher growth in preparation to offer AI education in middle school classrooms. After the AI Book Club, teachers achieved the biggest learning gains in their knowledge around AI's impact on jobs, views of community support in teaching AI, and confidence in teaching AI. After the practicum, teachers became more confident about teaching AI and having community support when teaching AI. They also became more interested in AI and believed more firmly that middle school students are capable of learning AI.

- **The frequency and the completeness with which teachers implement DAILy matters.**
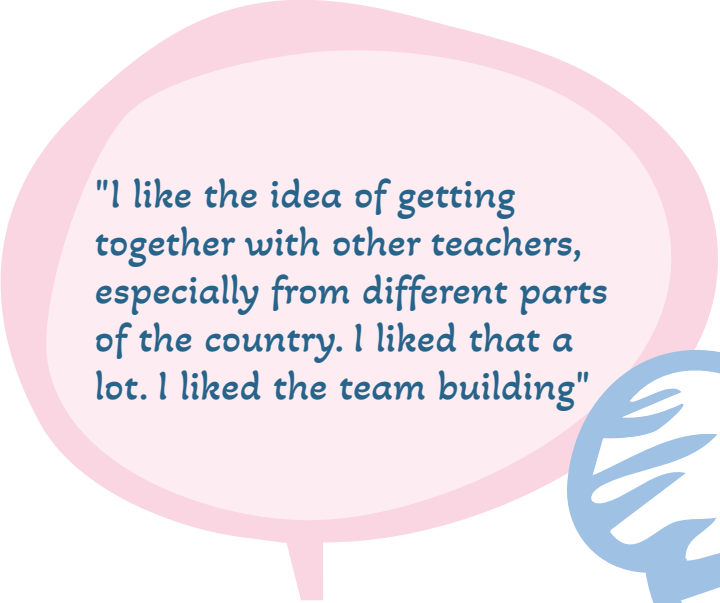 The frequency and completeness of teachers' implementation of the DAILy curriculum has an impact on student learning of AI literacy concepts. More frequent and more complete implementation of DAILy was found to be associated with greater learning gains [11]. For example, students who learned the DAILy lessons three or four times every week achieved greater learning gains than students who were taught DAILy lessons once every two weeks.

- **EdAI teachers modify the curricular materials to deepen and broaden their students' AI literacy**
  Teachers adapted the DAILy curriculum to tailor it to their students' learning needs, which is encouraged. We identified an average of 18 curricular modifications per teacher. Most of which were accommodations, but some were enrichment or enhancements. These modifications show that EdAI teachers are able to create and add new activities to deepen and expand student learning of AI literacy.
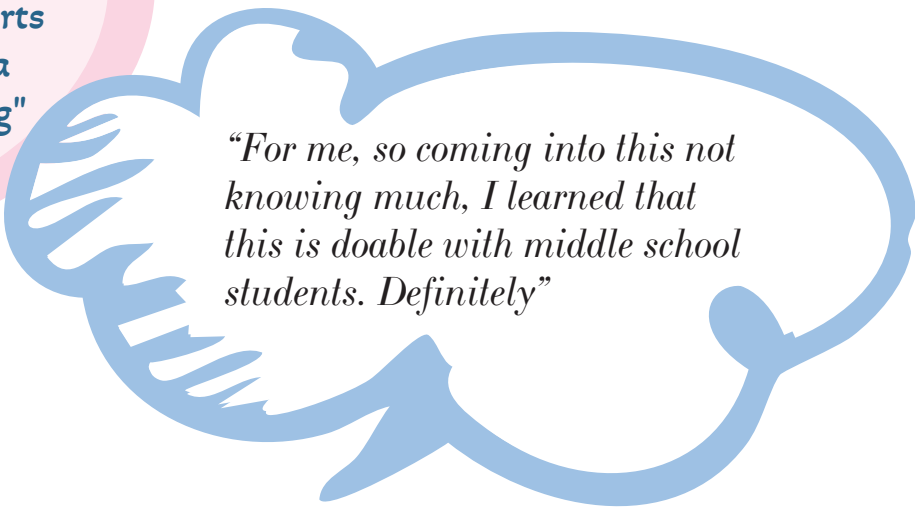
- **EdAI teachers are more likely to modify DAILy lessons on ethics, logic systems and supervised machine learning**
  Teachers made the most modifications in curricular activities teaching ethics, logic systems, and supervised learning. They added lots of everyday examples to help students develop an understanding of AI bias and societal implications. They also changed the context of the activities to better engage students, e.g., asking students to train a supervised learning model to distinguish between different stuffed animals. In contrast, teachers made the least modifications while teaching technical concepts of GANs or neural networks. This may reflect a lack of teachers' knowledge or confidence of teaching these more difficult concepts of AI in the classroom, and may warrant more time and attention paid to these concepts during the EdAI PD.

"I like the idea of getting together with other teachers, especially from different parts of the country. I liked that a lot. I liked the team building"

Teachers enjoyed learning together in a community of practice.

"For me, so coming into this not knowing much, I learned that this is doable with middle school students. Definitely"

Teachers became confident that it was possible to teach AI concepts to their students.

- **Effective AI teaching practice emerge over time, and they reflect common practices of culturally responsive pedagogy**
  Teachers' AI teaching practices matured over time. After their 2-years of experience teaching DAILy, teachers reported using teaching practices that showed students how relevant AI was to their everyday lives by making real-world connections between AI and students' interests and lived experiences. It was important to these teachers to create supportive classroom environments in which they could comfortably discuss bias in AI with their students. These teachers emphasized the importance of helping their students become critical thinkers and more informed citizens in the future. These findings suggest that (a) effective AI teaching practices may not emerge until teachers' 2nd year of implementation and (b) effective AI teaching practices share characteristics with CRP.

"Just like how the lessons work, like being actually asked to teach, it forces you to like, prepare for it and learn from it. And also, the reflections at the end of the debrief, like forces you to think about, how would I do in my classroom? I think that's the biggest thing I learned"

"You always pick up wonderful tips when you're just in the presence of the teaching of a great teacher... So doing it with other teachers from my district, which would have never happened if it weren't for the practicum, it was great"

The structure of the AI Book Club allowed teachers to experience the lessons as learners, first, then discuss how they would modify them to tailor them to their students' learning needs.

Teachers enjoyed co-teaching during the Practicum because they could see each other's pedagogical strategies.

"As an adult, I don't want to be embarrassed, but I don't understand it, it [the book club] was like a no pressure zone. The way that you all handle it that those who didn't know participated. So, I can just sit back and listen, but eventually, I was able to participate, that was a bonus."

Teachers felt that the AI Book Club was a comfortable learning environment.

WHAT DOES IT MEAN TO BE A FACILITATOR FOR EDAI?

As a Facilitator, your focus will be to help teachers learn to teach their students AI concepts using the Developing AI (DAILy) Curriculum. Your goals will be to a) model the lessons during the AI Book Club, b) support them during the Summer Practicum, and c) help them feel connected to and supported by a community of AI educators to foster a sense of belonging, confidence, and commitment to AI education. Your role is that of a professional development coach; one who teaches teachers, listens and asks questions, proactively checks-in, and reactively supports teachers as needed. You are an experienced AI educator, who your teachers will turn to for feedback, problem-solving, and advice. You do not have to have all the answers, just an empathetic ear and words of encouragement as a trusted instructional coach. You will be provided with materials to guide your work with teachers and help you get started coordinating your planning sessions and meetings with your teachers.

FACILITATOR TO PARTICIPANT RATIO (A RECOMMENDATION): (NO LONGER PLAGARIZED FROM GUTS)

Facilitating an EdAI session can be demanding, and without proper preparation, it can lead to exhaustion and burnout. To counter this, a supportive team and a well-structured agenda are key. We suggest that at least 2 individuals handle the facilitation. This allows for the primary speaking duties to be rotated between the facilitators. However, for gatherings of 15 or more attendees, we recommend 3 facilitators. Should the attendees be unfamiliar with the subject matter and tools, the 3 facilitators can provide individualized assistance, enabling participants to grasp the content, while the main speaker addresses the entire group.

HOW TO BECOME AN EDAI FACILITATOR

Generally, facilitators have experienced an EdAI professional development workshop as a participant and have used the DAILy curriculum in their classroom or afterschool club. This means that Facilitators begin as participants, who learn to implement all or a portion of the DAILy curriculum, first, with support from another Facilitator and then independently. With experience, teachers develop a strong understanding of the DAILy curriculum and AI concepts more generally. They become comfortable answering questions about AI systems, ethics, careers, and implications for society. When a teacher demonstrates this level of comfort with the relevant knowledge, skills, and pedagogy, they may be selected or recruited to become an EdAI Facilitator if they also demonstrate...

- good communication and organization skills,

- the insight and time to give constructive feedback and provide just-in-time support,

- the sensitivity to anticipate teachers' needs as learners and educators and arrange opportunities to address misconceptions and grow educators skills,

- a willingness to learn and use new teaching techniques.

HOW ARE FACILITATORS RECRUITED AND SELECTED?

Facilitator selection and recruitment will depend upon the circumstances, resources and network. Typically, Facilitators are recruited and selected in one of three ways:

1. Sometimes current facilitators will observe a workshop participant who shows promise in terms of skills, learning style, and interest in helping others learn.

2. Other times, a call for facilitators (such as a job posting) will go out inviting teachers who have completed the EdAI PD to apply for the role.

3. In a few cases, a partnering program will already have facilitators selected.

HOW DO WE PREPARE FACILITATORS?

Once selected, Everyday AI prepares Facilitators through the Facilitator Leadership Academy (FLA). The FLA can be hosted in-person or online. It involves a total of 16 hours of training, including an in-depth review of AI concepts (from DAILy), AI teaching practices / pedagogy (including Culturally Responsive Pedagogy (CRP)), and, most importantly, an introduction to teacher PD facilitation practices. We emphasize pedagogy for teachers and Facilitators because Facilitators serve as models for teachers. Thus, Facilitator preparation focuses not only WHAT to teach, but HOW to teach it, and WHY we teach this way.

WHAT DO FACILITATORS DO?

Facilitators for EdAI act to:

- support the teachers as they learn new concepts and tools,

- encourage discussion and contributions from all PD participants,

- plan for engaging activities and discussions,

- mentor PD participants, guiding them to improve their skills in both AI and AI pedagogy,

- Plan and conduct professional development workshops for teachers.

EdAI Facilitators work to help teachers and community members to not only gain new knowledge and skills in AI, but also on how to effectively teach it to students. Because Facilitators are often educators, who have implemented DAILy, they are able to speak of their authentic experience learning the material and working with students. Facilitators should be sensitive to the needs of their participants and should gauge the pacing of the workshop accordingly. Though there should always be an agenda and effective planning, the facilitator should feel comfortable adjusting the sequence of activities, adding or substituting when the need is perceived.

Full Model	Condensive Model
Attend the **Facilitator Leadership Academy** (16 hours), complete asynchronous work	
Prepare materials and lead the **AI Book Club** (20 hours + prep + debrief). We recommend that at least 2 Facilitators coordinate and share responsibility for leading each session. Facilitators debrief after all teaching sessions.	
Facilitate a planning meeting to help prepare teachers for the **Summer Practicum** (1 hour)	. . . during the AI Book Club, create regular opportunities for teachers to practice teaching DAILy lessons to each other as their Practicum. We recommend groups of 3 wherein each teacher gets 15 minutes to teach a different lesson to their peers (as if they were students) (45 min). Teaching practice session is followed by a 15 min debrief (1 hour total)
Facilitate the Practicum with teachers (40 hours) – Facilitators coordinate with their co-facilitator to lead teacher prep and debriefs for each day of the Practicum. Teachers lead the Practicum and co-teach with 3-4 other co-teachers. Facilitators are prepared to provide support during implementation, as needed.	
Maintain regular (at least monthly) contact with a small group of teachers who taught together during the Practicum. The goal of these meetings is to support teachers during their implementation of the DAILy Curriculum in their classroom or afterschool program. Facilitators schedule regular check-in meetings with their small group of teachers from the Practicum to discuss prep and implementation of the DAILy curriculum with the goal of providing support.	Maintain regular (at least monthly) contact with a small group of teachers who taught together during the EdAI PD. The goal of these meetings is to support teachers during their implementation of the DAILy Curriculum in their classroom or afterschool program. Facilitators schedule regular check-in meetings with their small group of teachers from the Practicum to discuss prep and implementation of the DAILy curriculum with the goal of providing support.
Co-lead 6 monthly 1.5-hour Webinars with another Facilitator. Prepare to lead a discussion and activity during each Webinar.	Co-lead 16 monthly 1.5-hour Webinars with another Facilitator. Prepare to lead a discussion and activity during each Webinar.

FACILITATION TEAMS

For hosting large workshops, we recommend using a team of facilitators, typically 2-3 co-facilitators with one Lead Facilitator. When deciding on a team of facilitators it is helpful to think of each person's strengths and weaknesses to find a good balance of skills and ways of engaging with the audience.

Considerations for making effective teams could include:

- classroom experience,

- manner of communicating with peers (soft-spoken vs. a 'take charge'),

- at least one person that is comfortable communicating logistics,

- prior knowledge or expertise in AI, machine learning (ML), or related fields (e.g., Natural Language Processing, Data Science),

- prior experience doing facilitation,

LEAD FACILITATORS

When working in facilitation teams, it is important that one person is designated as the Lead Facilitator. This person acts as the leader in preparation and execution of the EdAI PD for all other co-facilitators and participating educators and, in the case of the full model, participating youth. Responsibilities specific to The Lead Facilitator involve:

Preparation:
- developing the plan for the workshop as well as

- identifying the materials needed, and

- overseeing logistics of the space or delegating this to a team member (e.g., setup, food, access to technology, etc.).

During the EdAI PD the Lead Facilitator . . .

- makes sure that all facilitators are actively engaged in delivering content to the participants and are interacting with all participants in a positive manner.

- makes sure that the necessary materials are covered in a timely manner during the workshop.

Note: If a co-facilitator on the team is distracted or is going off topic, it is the responsibility of the Lead Facilitator to redirect that team member to the appropriate tasks and topics.

Note: In the case of the Full Model, if youth participants are not cooperative or are not actively engaged, the Lead Facilitator should act to moderate this behavior and ensure a positive learning environment for all.

Code of Conduct for EdAI Facilitators

1. **Facilitators are fully engaged in the EdAI PD.** Facilitators are not attending to personal business during the workshops.

2. **All facilitators are supportive of fellow team members.** Facilitators do not criticize fellow facilitators, educators, or youth participants in public. They provide feedback in supportive and restorative ways, for example during the debrief time at the end of the EdAI PD day.

3. **Curriculum and tools are supported and presented with fidelity.** If adaptations to the curriculum or tools are needed, these are approved prior to the start of the workshop.

   Note: Educators (teacher participants) are encouraged to modify the curriculum to tailor materials to the needs of their students; facilitators are asked to adhere to the original EdAI PD and DAILy curricular content.

4. **Facilitators interact and engage with participants during the PD.** Activities will likely be lead by 1-2 co-facilitators. If a facilitator is not leading the activity, they are circulating, modeling, demonstrating, or actively listening to provide just in time support as needed.

5. **If there are repeated specific issues with teacher or youth participants,** these are first discussed and addressed with the facilitation team and together the team will plan an approach to deal with the situation.

6. **All participants will be treated with equitable consideration.**

7. **Be mindful of sharing personal emails and becoming connected via social media with participants.** Participants look to facilitators as leaders. Interactions through social media might blur this distinction.

REFERENCES

1. Lee, I., Ali, S., Zhang, H., DiPaola, D., & Breazeal, C. (2021, March). Developing middle school students' AI literacy. In *Proceedings of the 52nd ACM technical symposium on computer science education* (pp. 191-197).

2. Begel, A., Garcia, D. D., & Wolfman, S. A. (2004). Kinesthetic learning in the classroom. *ACM SIGCSE Bulletin,* 36(1), 183-184.

3. Klopfer, E., Yoon, S., & Perry, J. (2005). Using palm technology in participatory simulations of complex systems: A new take on ubiquitous and accessible mobile computing. *Journal of Science Education and Technology,* 14, 285-297.

4. Klopfer, E., & Colella, V. (1999). Structuring collaboration in workshops and classrooms: The StarLogo community of learners. Paper presented at the *Computer Supported Collaborative Learning Conference (CSCL),* Palo Alto, CA.

5. Colella, V. (2001). Participatory simulations: Building collaborative understanding through immersive dynamic modeling. *Journal of the Learning Sciences, 9* (4), 471-500.

6. Wagh, A., & Wilensky, U. (2013). Leveling the Playing Field: Making Multi-level Evolutionary Processes Accessible through Participatory Simulations. Presented at the *CSCL, Madison, Wisconsin, June 15-19: Proceedings of CSCL.*

7. Skirpan, M., Beard, N., Bhaduri, S., Fiesler, C., and Yeh, T. (2018). *Ethics Education in Context: A Case Study of Novel Ethics Activities for the CS Classroom. In Proceedings of the 49th ACM Technical Symposium on Computer Science Education (SIGCSE '18).* ACM, New York, NY, USA, 940-945. DOI: https://doi.org/10.1145/3159450.3159573

8. Stasko, J. T. (1997). "Using Student-Built Algorithm Animations as Learning Aids", In *Proceedings of the ACM Technical Symposium on Computer Science Education (SIGCSE '97),* San Jose, CA, February 1997, pp. 25-29.

9. Stasko, J., Badre, A., & Lewis, C. (1993). Do Algorithm Animations Assist Learning?" An Empirical Study and Analysis. In *Proceedings of The SIGCHI Conference on Human Factors In Computing Systems (Chi'93).* 61–66.

10. Zhang, H., Lee, I., Moore, K. S. (February 25th, 2024). An Effectiveness Study of Teacher-Led AI Literacy Curriculum in K-12 Classrooms. In *Proceedings of the EAAI-24: The 14th Symposium on Educational Advances in Artificial Intelligence.* https://eaai-conf.github.io/year/eaai-24.html

11. Zhang, H., Lee, I., & Moore, K. (June 13th, 2023). Preparing teachers to teach artificial intelligence in classrooms: An exploratory study. In Blikstein, P., Van Aalst, J., Kizito, R., & Brennan, K. (Eds.), In *Proceedings of the 17th International Conference of the Learning Sciences - ICLS 2023* (pp. 974-977). International Society of the Learning Sciences.