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Commonsense Guardrails for Using Advanced Technology in Schools

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Randi Weingarten
PRESIDENT

Fedrick C. Ingram
SECRETARY-TREASURER

Evelyn DeJesus
EXECUTIVE VICE PRESIDENT

AFT Executive Council

Our Mission

The **AFT** is a union of professionals that champions fairness; democracy; economic opportunity; and high-quality public education, healthcare and public services for our students, their families and our communities. We are committed to advancing these principles through community engagement, organizing, collective bargaining and political activism, and especially through the work our members do.

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A Message from AFT President Randi Weingarten

It's a head-spinning time to be an educator in the United States. From the residual effects of the pandemic, to getting caught in the crosshairs of culture wars, to doing everything in their power to help students recover and thrive academically and emotionally—all while being underpaid, and often in inadequate learning and teaching conditions—teachers and school staff have gone from one challenge to the next. Even after emerging from the pandemic, students and teacher well-being continue to be in crisis in our schools.

Now, educators are confronting a juggernaut that is swiftly revolutionizing education and society: artificial intelligence (AI). And they are largely figuring it out without any guidance, even from their schools and districts. Given the potential benefits and risks of AI, educators and policymakers must work together to make sure it's used safely and responsibly; that we reduce—not expand—the digital divide; that users learn to identify misinformation, disinformation and deepfakes; and that we ensure these new technologies support teaching and learning, not control them.

As education moves into this new phase, we must use technology in service of creating classroom environments where students learn to think critically, they are engaged and joyful, and they have real-life hands-on learning experiences that emphasize the skills necessary to succeed in college, career, civic participation and life in a new tech-based world. Additionally, we must equip teachers to harness potential benefits of AI for their craft—such as tailoring instruction, reducing paperwork, and outsourcing grammar and spelling to AI for corrections, so teachers can use the human touch to evaluate students' arguments and analyses.

Protecting data and privacy and ensuring the ethical use of AI in schools and beyond have recently become even more difficult. The current federal administration has indicated it will not regulate AI. With little to no federal oversight, the only hope educators have for support and clear guidance as they navigate AI in their classrooms lies with state and local governments.

The following updated guardrails explore the ways in which advanced technology can enhance the educational experience while also addressing the challenges and considerations that accompany its implementation. Drawing upon the expertise of classroom educators and school support personnel, we aim to provide a living framework to help navigate AI in our schools now and into the future. In doing so, AFT members have identified three additional core values to guide this work: empowering students to be responsible and innovative in their technology use, fostering collaborative responsibility among all stakeholders, and ensuring environmental sustainability in technology adoption.

In addition, we have added a section on collective bargaining. Although intended only as a guide for those considering new language in their bargaining agreements or district policy, it highlights the critical issues that should be addressed. Today's technology is far more complex than the tools educators once relied on, and collective agreements or policies should reflect this modern reality.

Commonsense Guardrails for Using Advanced Technology in Schools

Advanced instructional technologies can be transformative, enhancing both teaching and learning. New and future technologies, exponentially more powerful than the programs and systems that preceded them, can fundamentally reshape our classrooms. Advanced technology, including artificial intelligence (AI) is now a part of everyday life and will impact all jobs, including those in schools and school systems. Technology will never, and should never, replace human interaction; nonetheless, we must adapt and integrate it into our work.

But just as these technologies bring unprecedented possibilities, they also carry unprecedented risks. We must be proactive in developing protocols for using these emerging technologies—for our educators, in our schools, and in our classrooms. Using strategies that align with the mission of schools, we can utilize technology to be more productive and to allow for creativity and engagement.

AFT's Ad Hoc Committee on Artificial Intelligence in the Classroom developed and refined these guardrails to support educators in adapting to the use of advanced technology. The AFT is providing the material below to help educators maximize the educational potential of instructional technologies while mitigating, to the greatest degree possible, their potential for harm. We appreciate the input from practitioners who have already started dealing with issues brought on by the use of advanced technology in schools, but it is only a start; we look forward to ongoing input from other educators as more tools are developed and their use becomes more commonplace.

Important Note: Given the complex and rapidly changing nature of artificial intelligence, it is impossible to create guardrails that cover all possible applications in educational settings. Although this report is an attempt to provide initial guidance to all education stakeholders, it will be updated periodically to reflect the evolving landscape of instructional technology. This updated version adds three new guardrails based on feedback we received after the release of the document. We also made some small edits to the existing guardrails to better reflect the intent of the document. Additionally, we have provided strategies to support educators and their unions with collective bargaining that addresses these AI issues.

The following material is not intended to supplant earlier guidance on technology. See previous documents for AFT positions on social media and student data privacy as well as preliminary guidance on artificial intelligence in schools as well as a resolution on social media, AI and generative AI and background to the resolution. As with social media, cellphones can be a distraction from learning, and many states and school districts have either implemented or are considering banning cellphones during the school day. This document focuses on advanced technology such as AI, but the AFT supports our affiliates in creating school policies regarding all technology that can impact students' mental health or learning.

The guidelines and guardrails in this document rest on a number of **core values**:

1. The first considerations when contemplating any technology must be to **maximize safety and privacy**; no pedagogical application should ever be allowed to jeopardize students or educators.

2. Schools must **promote human interaction and individuality** as the primary approaches to learning. Technology cannot be allowed to replace direct in-person interaction among students and educators.

3. **Empower educators to make educational decisions.** Certified professionals must decide when, whether and how to incorporate technology in pursuit of their larger educational priorities. Technologies and technology vendors must serve, not drive, those decisions and priorities.

4. Technologies must be deployed so that they **advance equity and fairness** in public education and cannot be adopted so that they widen, rather than help close, the digital divide and other inequities in our schools.

5. Schools must **advance democracy**. Technologies can be used to build young people's capacities for vigorous civic engagement. But technologies can also be used to promote misinformation, disinformation and radicalization. Schools must be incubators for healthy democracy and must instill in students the skills to use technologies accordingly.

6. Schools must **teach digital citizenship and balance**. Students must learn the rules and expectation for responsible use of technology and must develop balanced approaches to technology.

7. Schools should **empower students to be responsible and innovative** in their use of advanced technology. As these tools are used more by students, we must balance protecting students' well-being and development while preparing them for a future where innovation is key.

8. Schools must emphasize the **collaborative responsibility among all stakeholders** to ensure successful and ethical integration of advanced technology in schools.

9. Schools must **ensure environmental sustainability in technology use**. With the increase in use of technology, schools should be aware of the environmental impact on these tools and develop sustainable practices to protect our environment.

Advanced technologies—particularly AI and generative AI—are bound to become permanent fixtures in our schools, our economy, our society and our democracy. The AFT is committed to continually supporting educators and their students in our combined efforts to judiciously, effectively and ethically meld advanced technologies with our members' vision and values. In August 2024, we convened the AFT/Microsoft Symposium on AI in Education and Beyond—gathering 200 educators and school staff from across the country, alongside top ed-tech developers, leading AI researchers, and representatives of student and parent groups—to help shape the future of artificial intelligence in America's classrooms. Building on this success, the AFT is now partnering with AI developers in numerous ways and across multiple projects to ensure that educators' voices remain front and center in the integration of AI in education. Looking ahead, we will host a second symposium in July 2025 to further broaden the conversation and deepen collaboration among educators, students, families, and all who value a balanced, ethical and inclusive approach to AI in education.

On page 17, you will find some examples of how AFT members are already using and teaching AI in their classrooms, as well as a link to our online professional development site to find more examples and to share your own. As we continue to update our guidance, we will also update our examples.

Core Value 1: Maximize Safety and Privacy

The first considerations when contemplating any technology must be the **safety and privacy** of all students and staff; no pedagogical application should ever be allowed to jeopardize students or educators. Students and educators should understand privacy rights and be trained to understand and advocate for their rights.

1. **Student Privacy and Safety Come First:** All stakeholders must prioritize student privacy and safety in all educational technology decisions. The well-being and data security of students must be paramount, even if it means sacrificing some potential educational opportunities. Schools and school systems must assess the potential risks of allowing technology to access students' personal data and understand the full implication of the decisions. Students should be taught safe and responsible internet browsing habits, avoiding inappropriate sites, and recognizing and thwarting potential threats like phishing and malware. Elected officials and community leaders must commit to actively safeguarding our students and mitigating the invasive potential embedded in instructional technologies.

2. **Protect Educators and Staff in the Use of Technology:** The privacy and safety of educators, staff and parents must also be a top priority in technology-related decisions. Schools should implement clear policies to safeguard all personal data and provide training on secure and responsible technology

use. This includes recognizing cyber threats and maintaining professional boundaries online. Elected officials and community leaders must support efforts to protect all stakeholders from the invasive potential of instructional technologies while ensuring technology enhances, rather than undermines, educational and workplace well-being.

3. **Shared Responsibility for Data Privacy and Protection:** All technology users must respect the privacy of others. Personal information, including login credentials, should never be shared or misused. School authorities should ensure that data collection and usage are compliant with all regulations and local policies and, in the event of a data breach, immediately follow policies and protocol to protect students, educators and parents. Regulatory authorities at the state and federal levels must mandate data privacy protections and must support these mandates with sufficient funding and proper training to ensure effective and timely implementation. Educators must inform students about the risks and permanence of the digital environment and the ramifications of not protecting their own privacy and the privacy of others.

Examples and Strategies:

- **Districts Must Review Material**
    - » **Initial and Ongoing Review by District:** Federal, state and local laws govern many aspects of data collection and internet privacy, especially for minors. Before allowing students access to a site or software, the school district tech department must review the material to determine if it complies with existing laws and policies. They must continually review the material to ensure ongoing compliance. Not all educators have a full understanding of technology issues, so the district must ensure there are staff to support educators and students not only on use but also on safety and compliance.
    - » **Review Sites with Students Before Use:** Educators or tech staff should review terms and conditions of new sites or software with students to help them develop an understanding of the products they will be using and to discuss safe use. This must include helping students understand how to keep their personal information private.
- **Formulate a Response Plan:** Districts, **in partnership with local unions,** should develop an incident response plan for students, educators, staff and other stakeholders. This plan should instruct them on the immediate steps to take in the event of a privacy breach or scam, including alerting all school buildings. This policy should be written, made available and continually emphasized as a resource in all schools.
- **Hold Parent Information Sessions:** Hold a parent/guardian information session on advanced technology and AI. The information can include existing policies, school guidelines and background from research and nonprofit organizations that are experts in this work. This session will set the guidelines for all stakeholders and give parents and students an opportunity to ask questions of the district leaders and tech staff.
- **Create Classroom Guidelines:** At the beginning of the year/semester, each teacher should include a technology statement in the class syllabus that clearly sets the guidelines for students and serves as an ongoing reminder of the rules and policies.

Core Value 2: Promote Human Interaction and Individuality

Schools must **promote human interaction and individuality** as the primary approaches to learning. Technology cannot be allowed to replace direct in-person interaction among students and educators.

1. **Balance Technology and Tradition:** Technology can help students and educators to understand complex concepts, create engaging content, provide resources and personalize learning. However, traditional goals for learning (critical thinking, problem-solving, literacy, numeracy, civic engagement, command of academic content) and traditional pedagogies (group and individual instruction, discussions, projects, performances) must remain. Technologies must be utilized so that synchronous, interpersonal learning in a shared physical space is not replaced by asynchronous, isolated learning in remote spaces.

2. **Nurture Essential skills:** Personalization and flexibility in learning do not obviate the need for communication, compromise and collaboration. These skills are necessary in the classroom, the workplace and in a democratic society. Although technology may help instruction and enhance curriculum, educators must also ensure that they are continuing to develop relationships to make sure students also develop those essential skills.

Examples and Strategies:

- **Support Different Learning Styles and Learning Needs**

  - **Promote Accessibility and Inclusion:** Advanced technology can be used to support different learning needs (e.g., using the tools to convert text to speech for visually impaired students or translating text for students who speak different languages).

  - **Support Different Learning Styles:** Students can use information from videos and education puzzles to work with their "style" of interaction, with the educator serving as a coach to help them work on the projects/concepts. The educator must help students to be active participants and to try new ideas rather than be passive viewers of what is on their screens.

- **Design for Active Learning:** Only technologies that require a high level of student interaction should be used in the classroom. Platforms or programs that force students to passively view screens, or require only a low-level of student interaction should not be used in schools.

Core Value 3: Empower Educators to Make Educational Decisions

Certified professionals must decide when, whether and how to incorporate technology in pursuit of their larger educational priorities. Districts and administrators must **empower educators to make educational decisions**, including the use of advanced technology by the educator, as well as use by, and rules for, students.

1. **Ensure Educator Autonomy:** Educators must have the autonomy to make professional decisions, including broad authority in their classrooms to decide the degree to which technologies will best support student learning.

2. **Educators Choose the Technology:** Prior to any purchase of educational technology, school leaders should ensure that practicing educators, who will use the tools in their classrooms, have an opportunity to brainstorm and share their goals and needs for technology, thoroughly review relevant options, and ultimately select the technologies. Schools and school tech teams should carefully review potential technology providers and prioritize technology and other educational tools that have been co-developed with educators. Schools and school tech teams should constantly review their agreements with outside partners to ensure the schools do not become overly dependent on one technology or one provider.

3. **Clarify the Role of Technology for Each Assignment:** Schools and grade levels that allow the use of advanced technology for assignments must establish guidelines for each one. As a baseline, the educator should introduce content prior to any use of advanced technology; the students need understanding of the material to gauge accuracy of material they access via technology. Next, the teacher should ensure students fully understand the rules for each assignment before the work begins:

a. **Full use**—Students may use social media and/or advanced technology for any assignment or project if tech-generated work is fully credited, and the results are reviewed for accuracy. Educators must present citation format and requirements for all assignments.

b. **Partial use**—Students may use social media and/or advanced technology for specific assignments and projects if all tech-generated work is fully credited and reviewed for accuracy.

c. **No use**—Students are not allowed to use social media and/or advanced technology on any portion of the assignment or project. Using these tools would be considered an act of academic plagiarism.

4. **Ethical Use:** The use of technology and AI should always be ethical. It should not be used to cheat on assignments, tests, or to engage in any form of academic dishonesty. AI can provide valuable help in researching and understanding subjects. However, students should do their own thinking, reasoning and writing. Copying AI-generated content and presenting it as their own work is unethical and considered plagiarism. Any use of AI (if allowed) should be referenced, including AI-generated edits on students' own work.

5. **When Misuse of AI Is Identified:** After the role of technology has been clarified for each assignment, there must also be clear guidelines for cases when it has been used improperly. Educators should use a thoughtful approach that creates a teachable moment, especially as these tools are new and students are still learning how and when to use them. This way, a potentially difficult experience can be used to strengthen the education goals of both the teacher and the individual student. Schools and districts should have clear, enforceable and equitable policies for misuse that support teachers.

6. **Assess Thoughtfully:** Technology brings real-time assessment to the classroom. When appropriate, educators and school systems can use technology to create and grade assessments, saving time and allowing immediate feedback. However, educators should always make final judgments about student performance, and they must be encouraged to augment quantitative assessment with qualitative assessment.

7. **Train Continuously:** Technology accelerates constantly. Schools must prioritize continuous, high-quality professional learning so educators can adapt their teaching methods accordingly. Schools should offer paid time to develop pedagogy and curricula. Elected officials must ensure that funding for technology and training is readily at hand. Schools must allocate those funds in ways that prioritize student learning.

Examples and Strategies:

- **Form Collaborative Teams to Evaluate and Purchase Technologies:** Any team that makes decisions about adopting instructional or assessment technology should include educators alongside district staff. Unions must be given the authority to designate educators for those teams.

- **Show How to Attribute Properly:** Educators should teach students about plagiarism, copyright, fair use and attribution, including citations and bibliographies.

- **Strategies When Misuse of AI by Students Is Found:**

  » Familiarize yourself with your school's academic integrity policies and procedures.

  » Before talking with the student, make sure you are confident that the work is possibly tech generated. Software tools are available to help determine the use of AI.

  » Arrange a private meeting with the student to discuss the issue. This should be a safe space where the student can openly share their thoughts about the work and how it was developed.

- Clearly present what you have identified, without making any accusations. Ask the student to explain the similarities between their work and the content that was identified as possibly AI-generated.
- Give the student an opportunity to explain. Many times, there are circumstances or misunderstandings that must be shared and considered.
- If the student improperly used social media or AI, use the situation to educate the student about academic integrity, the importance of doing original work, and how the proper use of educational tools is crucial to their success in the future.
- In addition, if confirmed, take any additional steps as required by your school's policies.

- **Set Clear Guidelines for Measuring Student Learning:**
  - **Utilize different methods to demonstrate mastery:** With the existence of technology that gives students the ability to quickly search for and find answers to questions, educators must use different methods to demonstrate mastery, including project-based work, essays, speaking/interviews, discussion and art.
  - **Measure Essential skills:** Educators must design a method for measuring essential skills in the classroom. This could be through feedback cycles where students must offer feedback to their peers as part of the design process. Students working together on projects and assignments gives them opportunities to collaborate and compromise.
- **Sustained Professional Learning:** Educator learning sessions must regularly include updates and discussions regarding new technologies that might be used in schools or by students. Such professional learning must be sustained and not isolated and occur during the school day. Educators must be given time to share best practices and ask questions. Single-session meetings are insufficient and should be avoided.
- **Training in AI and Generative AI for Students and Staff:** Educators must learn how they can use AI to simplify their working lives. They must also learn how students can use AI to learn and how AI can be misused to hinder learning. They must also develop programs for students to reflect on the ethics, possibilities, risks and limitations of AI so that young people learn to reflect critically on their technologies.

Core Value 4: Advance Equity and Fairness

Technologies must be deployed so that they **advance equity and fairness** in public education and cannot be adopted if they widen, rather than help close, inequities in our schools.

1. **Close the Digital Divide:** Schools should ensure all students have equal access to technology. The addition of technology to the classroom should never expand the digital divide. Use of instructional technologies is impeded by severe inequities in wealth and funding, especially access to hardware, software and high-speed internet. On a national/state level, funds should be provided to improve access at the school and district levels. Schools and educators should not require use of advanced technology in places and situations where all students do not have access.

2. **Maintain Differentiated Instruction:** Shared classroom technologies should not be pathways to homogenization and over-standardization. Technologies should emphasize the importance of diversity in learning and celebrate it rather than minimize it.

3. **Inclusive Technology Practices:** When implementing technology, schools should consider the diverse needs of their student populations. This includes accommodating students with disabilities, language barriers or other learning differences. Districts should provide educators with training on evaluating generated content to ensure it is equitable, inclusive and nondiscriminatory.

Examples and Strategies:

- **Engage Government:** Educators, educational leaders and unions must continually approach federal, state and local governments to secure funding for technology and training for all learners.
- **Support Different Learning Modalities:** Students with differing learning needs (e.g., special education students or English language learners) and differing learning styles can use technologies to adapt assignments. Educators can serve as coaches to help guide students toward appropriate technologies.

Core Value 5: Advance Democracy

Schools must **advance democracy**. Technologies can be used to build young people's capacity for vigorous civic engagement. But technologies can also be used to promote misinformation, disinformation and radicalization. Schools must be incubators for healthy democracy and must instill in students the skills to use technologies accordingly.

1. **Filter and Assess Information:** Schools must adopt effective filters to block inappropriate or misleading content. Schools should select and utilize technology designed to flag potential misinformation, highlight key claims for verification and provide transparency into how conclusions were drawn. Students and educators should learn to use these tools alongside human judgment, ensuring technology is a support—not a substitute—for careful discernment.

2. **Identifying Misinformation and Disinformation:** Although school systems have the primary responsibility to block misinformation and disinformation from their servers, these efforts are not foolproof. Educators who use or assign work that uses advanced technology, including AI, should learn how to spot it and report potentially dangerous content on the school's servers. We must train students to critically evaluate and use information gathered from computers and the internet to identify and discount disinformation and misinformation, such as deepfakes. Students will have the responsibility to ensure the accuracy of any content they retrieve or generate.

3. **Teach Students to Formulate Reasoned Judgments:** For democracies to flourish, young people must learn the importance of evidence-based claims that are reasoned rather than emotional and deliberative rather than reactive. With AI technologies, it's important to understand that it is common for models to have biases based on the prejudices found in human-created content. School and district leaders should encourage continuous discussions about AI fairness and bias to help students combat inequality that is perpetrated by technology.

4. **Build Media Literacy and Ethical Judgment:** Educators should guide students through the process of evaluating credibility, verifying facts, and distinguishing between fact-based reporting and misleading narratives. Integrating media literacy, source evaluation and ethical content creation into all subjects helps normalize these practices. Educators should teach students to understand their own responsibility when sharing information, recognizing the potential impact of spreading inaccurate content. Educators can encourage constructive dialogues about media ownership, algorithmic biases, and the responsibilities of platforms and journalists. By treating truthfulness as a shared community value, schools empower students to contribute positively to public discourse.

Examples and Strategies:

- **Teach About Algorithms:** Students must be taught how algorithms generate user-specific content feeds designed to hold users' attention on advertisers and also how those feeds can isolate, mislead or radicalize users.
- **Teach Source Analysis:** Educators must normalize the expectation that all academic claims must be supported by credible evidence. They must also explicitly and consistently teach skills for source analysis so students learn to spot biases, deepfakes, misinformation and disinformation.
- **Teach Rules for Argument:** Students must learn how to gather credible information; formulate thesis statements and support thesis statements with robust, appropriately selected evidence.
- **Partner with External Organizations:** Schools can partner with AI ethics experts to deepen students' understanding of the risks and rewards of AI, especially with regard to American and global democracy.

Core Value 6: Teach Digital Citizenship and Balance

Schools must **teach digital citizenship and balance**. Student must learn the rules and expectation for responsible use of technology.

1. **Communicate Respectfully and Combat Bullying:** Schools and educators must provide students with clear guidelines and expectations regarding appropriate communications, along with the consequences for not following the rules. The same guidelines should cover communication whether in person or via technology. Educators must directly teach about hate, bias and bullying online.

2. **Respect Boundaries:** Digital communication should respect the right of others to disengage and to maintain work- or school-life balance. Schools should develop clear policies that respect the right to disengage, outlining expected availability hours for educators and students and ensuring these boundaries are respected. Students and educators should have the right to disconnect from digital tools outside designated school hours or during breaks. Homework and communication should respect personal time.

3. **Practice Digital Citizenship:** Users should understand the norms of appropriate and responsible behavior regarding technology use, including understanding and respect for intellectual property, copyright and fair use. Users of technology and AI should value the work of the people who created the content that technology uses to enhance learning. This respect must be overt and never used without attribution. Schools may also consider creating requirements for middle school and high school students to complete media literacy or digital citizenship training as part of core school requirements.

4. **Teach Safe Browsing Habits:** Schools should train educators, students and other stakeholders on safe and responsible internet browsing habits, personal safety and privacy. Schools should set aside time during school hours for student and educator training. This includes avoiding inappropriate sites and recognizing potential threats like phishing, malware or online predators. Schools must have safeguards and firewalls to protect students from accessing information that is not appropriate or safe.

5. **Mindful Use of Screen Time:** Schools should create a culture of mindful use of technology, where students and educators use digital tools purposefully, rather than habitually or as a response to boredom. Schools should encourage students to take regular breaks from screen time and engage in physical activities, social interactions or hobbies. Schools might consider implementing "digital detox" times when students (and educators) are encouraged to put away their devices and engage in nondigital activities. This can help establish healthier habits around technology use. Schools should create opportunities for students, educators and parents to learn

how to disengage, especially when technology is not needed or creates unnecessary work. The right to disengage must be a fundamental right of students, educators, staff, parents and all other stakeholders.

6. **Mental Health Awareness:** Schools should promote awareness of the potential negative impacts that overusing technology can have on mental health. This includes stress, anxiety, sleep disorders and other related issues.

Examples and Strategies:

- **Limit Time Spent Using Technology**
  - » **Schoolwide Technology Breaks:** An effective way to disconnect from technology is by implementing a designated day each week where the school community abstains from using technology, and instead engages in alternative activities such as browsing the library, playing board games and partaking in other nondigital pursuits. Additionally, educators can integrate unplugged activities into their lesson plans to foster critical thinking and problem-solving skills without relying on digital tools.
  - » **Purposeful Use of Technology:** Reduce the number of days/time per day that students use computers. Be purposeful about when/why computers and technology are used in schools. Optimize instructional methods that do not use technology: outdoor instruction; handwritten assignments and assessments; seminars and discussions; creative projects; service projects; civic engagement projects.
  - » **Limiting Technology Use Through Stations:** Rotating group activities can ensure all students get face-to-face interaction in cases where technology is used.
  - » **Designated Times for Students and Staff to Disconnect:** Schools could establish a clear policy outlining specific hours during which homework and non-urgent communications are not expected. Additionally, they might provide resources or workshops for educators, students and parents on the importance of respecting the right to disconnect. Educators can offer "office hours" during which their students know they are available to respond to questions/messages. Schools might delineate specific circumstances where communication outside designated hours is acceptable, such as urgent announcements or time-sensitive collaborative projects. This ensures a balance between respecting personal time and meeting essential communication needs.
- **Create Buildingwide Policies**
  - » **Purposeful Engagement Practices:** Schools can introduce a "Tech Purpose Challenge," where students are encouraged to set goals for each digital tool they use, specifying how it aligns with their learning objectives. This helps students develop a habit of purposeful engagement.
  - » **Mindful Use Policies:** Schools might create a mindful use policy that outlines specific criteria, such as using technology for research, collaboration or creative projects. This provides a clear framework for evaluating whether technology use is aligned with educational goals.
  - » **Mindfulness Practices:** Schools could integrate mindfulness practices into the curriculum, incorporating short mindfulness exercises at the beginning or end of classes. This helps students develop self-awareness and intentionality in their use of technology.
- **Examine Examples of Online Hate Speech:** Educators should select age-appropriate examples of actual online hate speech and cyberbullying so students can learn how to spot and report bias incidents and also learn their personal responsibilities for appropriate online conduct.

- **Empower Students and Educators to Report Harassment:** Schools must provide students and educators with safe and accessible ways to report any form of online harassment, bullying or disrespectful communication. These reports must be acted on and resolved quickly to ensure these types of behaviors do not corrode the efficacy of online communication.

- **Mental Health Support**

  - **Mental Health Awareness Events:** Schools might organize mental health awareness weeks, community forums or workshops that focus specifically on the impacts of technology on mental health. These events could include expert speakers, panel discussions and interactive activities to engage students.

  - **Integrate Mental Health Education into the Curriculum:** Incorporating mental health education into various subjects can be a valuable way for schools to raise awareness about the psychological impact of technology. By dedicating specific lessons or modules to this topic, mental health becomes integral to the overall learning experience. Additionally, schools can integrate lessons on emotional regulation and coping mechanisms into the curriculum while training educators to offer personalized support and encourage students to openly communicate their concerns regarding AI-generated feedback.

  - **Educator Training:** Train educators to identify signs of technology-related stress and anxiety in students. Equip them with resources and strategies to navigate conversations and provide support to.

Core Value 7: Empower Students to Be Responsible and Innovative

Student use of advanced technology is increasingly integral to modern education. When properly used, these tools should enhance student learning, creative abilities and critical thinking skills. This requires a balance of protecting student well-being and development while preparing them for a future where innovation is key.

1. **Review Guidance in all Guardrails Before Implementation:** Proper safety requirements, training and assurance of equity should be paramount before any technology is implemented for student use. This includes, but is not limited to, guidance in all previous guardrails as well as selection of tools that are appropriate for student age and ability. Educators should train students on use of the tools before they are integrated into the classroom.

2. **Empower Student Agency and Engagement:** Educators should utilize student use of advanced technology in the classroom to foster an environment where students are active participants in their learning journey. These tools can assist educators in promoting critical thinking and problem-solving, and move beyond passive content delivery. Adaptive learning platforms can adjust task difficulty in real time, keeping students engaged and appropriately challenged. Personalized learning paths tailored by advanced technology cater to individual preferences and learning styles, increasing motivation and ownership of the educational process. Encouraging students to make choices supported by advanced technology cultivates independence and self-directed learning, essential skills for lifelong education.

3. **Ethical and Transparent Interactions with Technology:** Educators should support student awareness around AI interactions, including its role, capabilities and limitations. As technology continues to develop, many applications will incorporate AI in some form, and ability to identify the existence of AI empowers students to critically assess AI-generated content. When students grasp the reasoning behind AI suggestions or feedback, it demystifies the technology and builds confidence in using the technology. Obtaining

informed consent from students and, where appropriate, their parents or guardians ensures respect for their autonomy and privacy, especially when personal data is involved.

4. **Foster Creativity and Innovation:** Engaging students with AI-driven projects encourages creativity, critical thinking and hands-on experience with advanced technologies. By teaching students to evaluate AI outputs critically, educators enhance students' analytical skills and prepare them to navigate a rapidly changing world. Introducing AI as a creative resource allows students to explore new ideas and foster innovation. Grade-appropriate lessons on AI fundamentals lay the groundwork for understanding future technologies, while activities like coding and building simple AI models empower students as creators rather than passive consumers. These skills, paired with a mindset of lifelong learning, prepare resilient, resourceful individuals to meet future challenges.

Core Value 8: Foster Collaborative Responsibility Among All Stakeholders

The successful and ethical integration of advanced technology in education requires a collective effort. Educators should not be solely responsible; technology companies, legislators, school district leadership, parents, and the community must actively participate and share responsibility.

1. **Shared Accountability:** Schools should engage with all stakeholders—including technology companies, legislators, school district leadership, parents and the community—to create policies and guidelines for use of advanced technology. Joint policy development ensures that diverse perspectives and needs are considered, leading to more effective and inclusive strategies. Establishing clear channels for regular communication fosters transparency and trust, allowing for ongoing dialogue about initiatives, concern, and successes. Providing resources and training for all parties helps build a common understanding of the role, benefits and risks of using advanced technology in education.

2. **Role of Technology Companies:** Schools and districts should only partner with technology providers that prioritize safety, privacy and inclusivity in their products. Ethical product development means considering the potential impacts on students and educators at every stage. Schools and districts should train educators and families to understand the risks and responsibilities tied to technology tools so that they can identify suitable partners and recognize potential issues. Companies should be transparent and provide ongoing documentation, training and support on their tools.

3. **Role of Legislators and Policymakers:** Schools and districts should collaborate with families and communities to advocate to legislators and policymakers on the needs and impact of technology in education. Legislators play a crucial role in establishing regulatory frameworks that protect students and educators; and schools and communities can provide valuable input to help ensure that legislators can make informed decisions on what is best for educators and students. By developing and enforcing laws covering data privacy, ethical use of advanced technology and equitable access, legislators can ensure that educational environments are safe and fair. They can also allocate funding and resources to support the necessary infrastructure, professional development and tools that combat the impact on education from misinformation and deepfakes.

4. **Role of School District Leadership:** School district leaders must be proactive in addressing challenges and adjusting policies and practices as needed. Leadership is responsible for putting policies into practice, providing the necessary support and resources to schools and educators. Regular evaluation of technology tools and practices will help ensure compliance with policies, ethical standards and educational effectiveness.

5. **Role of Community and Parents:** Involving parents and community members in discussions about the use of advanced technology in schools respects their input and addresses their concerns. Inclusive decision-making processes foster a sense of shared responsibility and commitment to student success. Offering

workshops and materials to help parents understand advanced technologies enables them to support their children's learning effectively. Districts should also have ongoing conversations and training with parents and communities to ensure they are a part of a collaborative coalition to help advocate to legislators and to provide oversight of technology companies.

6. **Ethical Oversight Committees:** Districts should establish ethics committees that include educators, parents, students and experts to provide oversight of advanced technology integration. These committees can address ethical issues, guide best practices and ensure that technology use aligns with the community's values. Regular, transparent reporting on AI use—including successes, challenges and mitigation strategies—maintains accountability and trust among all stakeholders.

Core Value 9: Ensure Environmental Sustainability in Technology Use

Users must recognize the environmental impact of advanced technologies and promote sustainable practices within educational settings. Advanced technology can use much more energy than traditional technology. For instance, a generative AI search can use up to10 times more electricity than a search on a traditional internet platform.[1]

As technology increases, so will the costs and use of infrastructure, electricity, mineral mining and water usage. Schools should be mindful of the following when making choices about technology:

1. **Users Make Eco-Friendly Technology Choices:** Students and teachers should learn how to select he most efficient technology for their tasks. Some projects may require highly advanced AI models, but many assignments can be completed with straightforward internet searches. In making these decisions, it is crucial for educators and learners to understand the envorionmental impact of various technologies. They should prioritize tools that minimize energy usage, carbon footprint and other ecological consequences. By striking a balance between effectiveness and sustainability, students and teachers alike can meet their academic goals while helping to protect our planet.

2. **Schools make Eco-Friendly Technology Choices:** As technology increases, so will the costs of infrastructure, electricity, mineral mining and water usage. Schools should make conscious decisions to opt for technology and hardware that consume less energy and contribute to a smaller carbon footprint. Sustainable procurement practices, such as favoring companies with green initiatives and environmentally friendly products, demonstrate a commitment to environmental stewardship. These choices not only benefit the planet but also set an example for students about the importance of sustainability.

3. **Responsible E-Waste Management:** Schools should participate in recycling programs for outdated or broken electronic devices to ensure that e-waste is managed responsibly. Educators should involve students in these programs to educate them about the environmental consequences of technology production and provide practical learning experiences in environmental science and civic responsibility.

1 https://www.morganlewis.com/pubs/2024/08/the-intersection-of-energy-and-artificial-intelligence-key-issues-and-future-challenges

How Is AI Used in Schools?

Embracing AI tools in education requires more than just technological know-how; it demands an understanding of ethical implications and a commitment to student-centered learning. AFT's Share My Lesson offers free online professional development and resources on numerous education topics. SML has partnered with AI Educator Brain to provide live and on-demand webinars and resources for educators seeking to navigate the challenges and opportunities presented by AI, ensuring that technology enhances rather than replaces human-centric educational practices. The AI Educator Brain provides tailored support to help educators make informed decisions about when and how to incorporate AI tools in a way that aligns with pedagogical goals and supports equitable, engaging and effective learning experiences.

Share My Lesson also has a new community with content on using AI in schools, which includes training webinars, blog posts, and a collection of lesson plans and resources for educators. Join the AI and Education Community for support on how you can use AI in your classroom: sharemylesson.com/ai.

You can share how you are using AI in your classroom and get ideas from other educators at https://sharemylesson.com/community/400102/discussions. Here are some examples of how our members are already integrating AI into their schools:

- **Teacher-Led Professional Development:** Cranston Coaches Corner Newsletters are produced by an instructional coach coordinator to provide educators in Cranston, R.I., with tools to support their use of AI and other ed tech. Newsletters include links to blogs, articles, online tools and activities, as well as other supports.

- **Developing Individual Education Plans with Students:** Educators in Wichita, Kan., use Microsoft Copilot to support special education students by adapting lessons to the needs of individual learners. The AI tools help to develop lists of potential personalized accommodations and modifications based on students' individual needs. Including students in this process empowers them to have an informed voice in the development of their IEP.

- **Project-Based Learning in CTE Courses:** An educator in Rhode Island piloted the use of AI in a project-based learning environment with a small group of 11th- and 12th-graders. In learning about the event planning and tourism industry, students first viewed industry websites and then used the ChatGPT Incognito Mode to develop content for their own venue (hotel, event space, festival, car show, etc.). They used the teacher's Google Gemini and/or Microsoft Copilot accounts to generate text-to-image ideas to develop the visuals for their project. Finally, they used Canva to create a slide deck of all their materials (brochures, sample websites, videos, travel site descriptors) to present to the class. The tools they used did not collect data or save history, helping to ensure as much privacy as possible.

- **Student Privacy and Safety:** To ensure student privacy and safety, teachers use platforms like Securly to monitor student internet usage and ensure they are not accessing inappropriate content. They also teach students about safe internet browsing habits using resources like Common Sense Education's Digital Citizenship curriculum.

- **Advancing Democracy:** Teachers use technology to promote civic engagement by integrating platforms like iCivics into their curriculum. Students learn about democracy through interactive games and simulations, developing critical-thinking skills while exploring real-world civics issues.

- **Teach Digital Citizenship and Balance:** Teachers educate students about the responsible use of technology by using platforms like Be Internet Awesome from Google. They also promote a balanced

approach to technology by incorporating mindfulness apps like Headspace into their daily routine to help students manage screen time and maintain mental well-being.

- **Teaching Students About Algorithms:** A New York City high school history teacher has created a series of classroom lesson or modules on AI literacy for his students. The modules include: What is an Algorithm? How to Write an Algorithm, and the Risks of Algorithms. In addition, he connects these modules to other lessons directly related to his curriculum.

Other Resources

The AFT is not alone in our effort to support educators with the use of advanced technology in schools. Here are some other organizations that have resources and communities to help you in this work:

- **Share My Lesson:** AFT's Share My Lesson has a community that includes content on using AI in schools, which includes training webinars, blog posts, and a collection of lesson plans and resources for educators. SML has partnered with AI Educator Brain to provide live and on-demand webinars and resources for educators seeking to navigate the challenges and opportunities presented by AI, ensuring that technology enhances rather than replaces human-centered educational practices.

- **TeachAI:** The AI Guidance for Schools Toolkit was created by TeachAI to help local, state and national education systems develop guidance on the responsible use of AI, ensure compliance with relevant policies, and build the capacity of all stakeholders to understand and use AI.

- **EDSAFE:** The EDSAFE AI Alliance center has a framework to establish a policy process road map for the essential issues in creating a safe AI system. The aim of the framework is to achieve equitable outcomes for students and improve working conditions for teachers.

- **ChatGPT for Teachers on Facebook:** The public Facebook group ChatGPT for Teachers is a community of over 450,000 educators interested in integrating ChatGPT into their teaching practices. The group includes a discussion section for people to ask questions, share resources and collaborate with peers. Users have uploaded files with general strategies and specific examples.

- **The AI Education Project:** The AI Education Project is a nonprofit organization that creates equitable learning experiences that excite and empower students with AI literacy. The site provides free curriculum for teachers to use to teach AI as well as professional learning and toolkits for educators to help them better understand how to use AI.

- **National Science Foundation:** The U.S. National Science Foundation posted an article about AI in education with examples of how some schools and teachers are using AI in their classrooms. The NSF has funded a project, AI4K12 to develop guidelines for AI education in K-12, online resources to facilitate AI instruction, and a community of practitioners and researchers.

- **Wharton Interactive:** The University of Pennsylvania's Wharton School offers resources on Teaching with AI. This site offers a variety of materials that includes research, trainings and interactive lessons for educators to use with their students.

- **Digital Promise:** Digital Promise is a nonprofit organization that works with educators, researchers, technology leaders and communities to create innovations that empower learners. Their human-centered approach includes resources on AI literacy, digital equity and safety.

- **Edutopia:** As part of the George Lucas Educational Foundation, Edutopia disseminates information about innovative educational techniques for students. The organization offers guidance and tools on the use of generative AI.

The Crucial Role of Collective Bargaining in the Use of Advanced Technology in Schools

Past policies or regulations that prohibit technology from being a subject of bargaining in schools were created long before the emergence of advanced technology, machine learning and generative artificial intelligence. These rules were crafted in an era when the potential impact of technology on education was limited and straightforward, but today's AI-driven tools are deeply integrated into nearly every aspect of teaching and learning. Given the profound influence of modern technology on students, teachers and classrooms, it is essential that technology, including AI, becomes a mandatory subject of collective bargaining. Schools must address these developments with policies that empower educators to manage and oversee the responsible use of technology in their work. Just as schools evolve to adapt to new technologies, so too must the policies and agreements that guide their implementation. A key element of these agreements must ensure that teachers are directly involved in the selection, procurement, implementation and assessment of any technology introduced into their schools.

Collective bargaining—or union-supported policies where bargaining is not allowed—is a crucial tool for addressing the complexities of AI in education. By negotiating fair and informed agreements that include the following principles, educators and their unions can ensure that technology enhances education without compromising safety, equity or professional autonomy.

1. Maximizing Safety and Privacy Through Collective Agreements

The safety and privacy of students and teachers must always come first. Collective bargaining allows educators to negotiate for policies that ensure:

- **Transparent Data Policies:** Agreements must require schools to establish clear data governance policies, specifying how student and staff data is collected, stored and used. Teachers should also play an active role in reviewing these policies to ensure they reflect on-the-ground realities in classrooms. These agreements must include protocols for responding to data breaches, ensuring sensitive information is protected, and misuse is addressed promptly.

- **Mandatory Training:** Educators and students must be trained in navigating AI technologies responsibly. Agreements should secure dedicated time and funding for professional development on topics like safe internet browsing, identifying phishing scams and understanding privacy rights. Teachers' input in designing and implementing this training is critical to ensure it meets the needs of their school communities.

- **Limits on Intrusive Technologies:** Unions can push back against the use of AI tools that excessively monitor and surveil students and teachers. Educators must be involved in the decision-making process to evaluate whether proposed technologies support learning goals without infringing on individual rights.

2. Promoting Human Interaction and Individuality

AI should never replace the personal interactions that form the foundation of effective teaching. Collective agreements can help maintain the balance between technology and tradition by:

- **Ensuring Educator Control Over AI:** Teachers must retain authority to decide how and when AI tools are used in their classrooms. Agreements should explicitly require that educators be involved in all stages of technology procurement—from selecting and evaluating potential vendors to deciding how tools will be implemented and reviewed.

- **Preventing Over-Automation:** Policies can safeguard against overreliance on AI for grading, classroom management or instructional design. Educators should assess these tools regularly to ensure they enhance rather than diminish the human element of teaching.

- **The Right to Disconnect:** Teachers should have the freedom to step away from educational technology when they believe that traditional, technology-free lessons will enhance the learning experience and foster deeper engagement and understanding.

3. Empowering Educators Through Collective Voice

Teachers bring invaluable experience and expertise to discussions about educational technology. Collective bargaining ensures that their voices are central to decision-making processes:

- **Educator-Driven Technology Selection:** Agreements must ensure that teachers play a key role in the selection and procurement process for AI tools, thoroughly reviewing and selecting technologies before they are implemented in classrooms. Educators' firsthand experience provides critical insights into whether a tool will meet the diverse needs of students and align with curriculum goals.

- **Ongoing Assessment and Review:** Educators must also be part of continuous assessment and review of any technology used in their schools. By regularly evaluating tools for effectiveness, equity and alignment with learning objectives, teachers can advocate for necessary adjustments or even the removal of underperforming technologies.

- **Protecting Professional Judgment:** Contracts should ensure that teachers have the freedom to adapt assignments and classroom policies to address the misuse of AI while fostering a constructive and ethical learning environment. This professional flexibility is essential to integrating AI responsibly.

4. Advancing Equity and Fairness

AI should be a tool for closing gaps in educational equity—not widening them. Through collective bargaining, unions can advocate for:

- **Funding to Bridge the Digital Divide:** Many students still lack access to the hardware, software and high-speed internet needed to fully benefit from AI in education. Agreements can push for increased funding to ensure that all students, regardless of their socioeconomic background, have equal opportunities to succeed. Teachers must be included in identifying technological needs and advocating for solutions that address these disparities.

- **Inclusive Technology Practices:** Schools must ensure that AI tools accommodate the diverse needs of their student populations. Agreements should mandate teacher involvement in the selection and evaluation of technologies to ensure they support students with disabilities, language barriers and other unique learning needs.

5. Safeguarding Democracy and Ethical Practices

AI has the potential to amplify both positive and negative influences on society. Collective bargaining can help educators address these broader implications by:

- **Combating Misinformation and Bias:** Unions can advocate for AI tools that are transparent about their data sources and decision-making processes. Teachers should be directly involved in selecting tools that prioritize transparency and mitigate biases, ensuring they align with the values of truth and inclusivity.

- **Establishing Ethical Oversight:** Agreements can include provisions for creating ethics committees composed of educators, parents and experts. These committees would oversee the procurement and implementation of AI tools, providing ongoing reviews to ensure they reflect the community's values and educational goals.

6. Building a Collaborative Future

The successful integration of AI in education requires collaboration among educators, school leaders, policymakers and technology companies. Collective bargaining fosters this collaboration by:

- **Ensuring Teacher Involvement in All Stages of Technology Use:** Teachers must be active participants in the procurement, implementation and review of AI tools. Their input ensures that technology decisions are practical, equitable and effective.

- **Sharing Accountability:** Unions can advocate for shared responsibility among stakeholders to address the challenges and opportunities AI presents. This includes engaging with legislators to develop regulatory frameworks and pushing technology companies to prioritize safety, privacy and equity.

- **Sustained Advocacy and Funding:** Through collective action, educators can secure funding for necessary infrastructure, training and ethical oversight, ensuring that AI serves as a tool for empowerment rather than a source of harm.

By embedding these principles into collective bargaining agreements and school policies, educators and their unions can ensure that AI enhances education while protecting the rights and well-being of students and teachers. Through collaboration and proactive policymaking, schools can embrace the opportunities of AI without compromising their core values.

Ad Hoc Committee Members

Kathryn Anderson—Chelsea Teachers Union
Brian Andreshak—Gary Teachers Union
Karen Arthmann—Rush-Henrietta Employees' Association
Sara Baldassar—Cleveland Teachers Union
Ebony Batiste—United Teachers Los Angeles
Kathleen Beckwith—Scranton Federation of Teachers
Justin Best—Oklahoma City AFT
Seth Blevans—AFT St. Louis
Daryl Boeckers—Anoka-Hennepin Education Minnesota
Sam Brunett—AFT Monongalia
Zeph Capo—Texas AFT
Sarah Chang—Boston Teachers Union
Melissa Cropper—Ohio Federation of Teachers
Margaret Dalton-Diakite—United Federation of Teachers
Christine Engelbrecht—Los Alamos Federation of School Employees
Carla Faile—Central Alabama AFT
Carlos Ferran—University Professionals of Illinois
Jeff Freitas—California Federation of Teachers
Mary-Kate French—Harlem Federation of Teachers
Jennifer Gallatin—Blackford Federation of Teachers
Nikolas Gonzales—Boston Teachers Union
Richard Haase—Half Hollow Hills Teachers Association
Angela Hankes—North Suburban Teachers Union
John Harrell—North Allegheny Federation of Teachers
Mike Harris—United Teachers of Wichita
Christel Hayes—Chicago Teachers Union
Nelly Henjes—Pinellas Educational Support Professionals Association
Nolan Higdon—University Council-AFT, Santa Cruz Chapter
Jan Hochadel—AFT Connecticut
John Holleran—United Federation of Teachers
Erika Hughes—Central Alabama AFT
Bernadette Jiron—AFT Colorado
Brooks Koolman—Norfolk Federation of Teachers
Jackie Lansdale—Red River United
Kallie Leyba—AFT Colorado
Gordan Longhofer—Palm Beach County Classroom Teachers Association
Matthew Lyon—Putnam County Federation of Teachers
Laquetta Mackey—Norfolk Federation of Teachers
Adam Marcoux—Nashua Techers Union
Dan Montgomery—Illinois Federation of Teachers
Shari Obrenski—Cleveland Teachers Union
Phil O'Conner—Lynn Teachers Union
Wil Page—United Teachers Los Angeles
Greg Perles—North Shore Schools Federated Employees
Nicholas Perry—Salinas Valley Federation of Teachers
Ben Pfeiffer—Oregon City Federation of Teachers
Jason Roberts—Kansas City Federation of Teachers and School-Related Personnel
Omar Salem—North Suburban Teachers Union
Briar Schrieber—Portland Community College Federation of Classified Employees
William Schwandt—Bloomington Federation of Paraprofessionals
Kris Schwarzkopf—Toledo Federation of Teachers
Sheridan Smith—Gary Teachers Union
Jennifer Smoller—North Allegheny Federation of Teachers
Hannah Telling—Butte Teachers Union
Jordan Thomas—Red River United
Sandra Thompson Wallace—TOTEM Association of Educational Support Personnel
Marsena Toney—Pittsburgh Federation of Teachers
Miriam Townsend—AFT St. Louis
Erinn VanderMeer—Petaluma Federation of Teachers
Christine Walker—Scranton Federation of Teachers
Justin Wewers—Anoka-Hennepin Education Minnesota
Carl Williams—Lawndale Federation of Classified Employees
Dan Williams—North Allegheny Federation of Teachers
Sarah Wofford—Oregon School Employees Association
Stacey Yakimowich Chavez—United Teachers Los Angeles

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Rob Weil, Educational Issues
Marla Ucelli-Kashyap, Educational Issues
Lauren Samet, PSRP
Kelly Booz, Educational Issues
Robin Vitucci, Educational Issues
Jason Edwards, Educational Issues
Susan Youssofi, Educational Issues
Laura Brown, Educational Issues
Jennifer Berney, Communications
Laura Baker, Communications
Justin Stone, AFT Innovation Fund

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AFT, AFL-CIO | 555 New Jersey Ave. N.W. | Washington, DC 20001 | www.aft.org

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