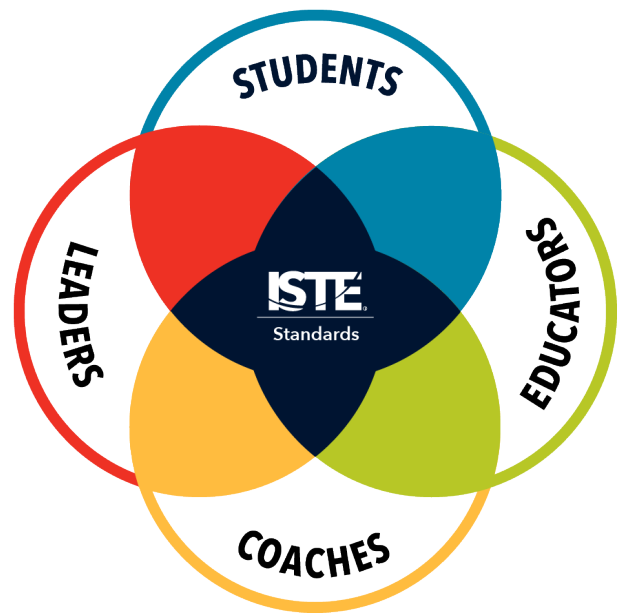# ISTE
®

Standards

INTRODUCTION

The ISTE Standards serve as a framework for innovation and excellence in learning, teaching and leading. They set out a holistic and comprehensive approach to advancing educator practice and professional growth for using technology in the service of learning, and support planning for digital learning, curriculum mapping and school improvement.

At their core, the standards are about learning, not tools, and emphasize agency and ways to transform teaching and learning.

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SECTION 1: STUDENTS

1.1. Empowered Learner

Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences. Students:

1.1.a. Set learning goals, develop strategies leveraging technology to achieve them and reflect on the learning process to improve learning outcomes.

1.1.b. Build networks and customize their learning environments in ways that support the learning process.

1.1.c. Use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.

1.1.d. Understand fundamental concepts of how technology works, demonstrate the ability to choose and use current technologies effectively, and are adept at thoughtfully exploring emerging technologies.

1.2. Digital Citizen

Students recognize the responsibilities and opportunities for contributing to their digital communities. Students:

1.2.a. Manage their digital identity and understand the lasting impact of their online behaviors on themselves and others and make safe, legal and ethical decisions in the digital world.

1.2.b. Demonstrate empathetic, inclusive interactions online and use technology to responsibly contribute to their communities.

1.2.c. Safeguard their well-being by being intentional about what they do online and how much time they spend online.

1.2.d. Take action to protect their digital privacy on devices and manage their personal data and security while online.

1.3. Knowledge Constructor

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others. Students:

1.3.a. Use effective research strategies to find resources that support their learning needs, personal interests and creative pursuits.

1.3.b. Evaluate the accuracy, validity, bias, origin, and relevance of digital content.

1.3.c. Curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.

1.3.d. Build knowledge by actively exploring real-world issues and problems, developing ideas and theories and pursuing answers and solutions.

1.4. Innovative Designer

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions. Students:

1.4.a. Know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts or solving authentic problems.
1.4.b. Select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
1.4.c. Develop, test and refine prototypes as part of a cyclical design process.
1.4.d. Exhibit a tolerance for ambiguity, perseverance and the capacity to work with open-ended problems.

1.5. Computational Thinker

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions. Students:

1.5.a. Formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models and algorithmic thinking in exploring and finding solutions.
1.5.b. Collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.
1.5.c. Break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
1.5.d. Understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

1.6. Creative Communicator

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals. Students:

1.6.a. Choose the appropriate platforms and digital tools for meeting the desired objectives of their creation or communication.
1.6.b. Create original works or responsibly repurpose or remix digital resources into new creations.
1.6.c. Use digital tools to visually communicate complex ideas to others.
1.6.d. Publish or present content that customizes the message and medium for their intended audiences.

1.7. Global Collaborator

Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally. Students:

1.7.a. Use digital tools to connect with peers from a variety of backgrounds recognizing diverse viewpoints and broadening mutual understanding.
1.7.b. Use collaborative technologies to work with others, including peers, experts or community members, to examine issues and problems from multiple viewpoints.
1.7.c. Contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.
1.7.d. Explore local and global issues and use collaborative technologies to work with others to investigate solutions.

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SECTION 2: EDUCATORS

Empowered Professional

2.1. Learner

Educators continually improve their practice by learning from and with others and exploring proven and promising practices that leverage technology to improve student learning. Educators:

2.1.a. Set professional learning goals to apply teaching practices made possible by technology, explore promising innovations, and reflect on their effectiveness.

2.1.b. Pursue professional interests by creating and actively participating in local and global learning networks.

2.1.c. Stay current with research that supports improved student learning outcomes, including findings from the learning sciences.

2.2. Leader

Educators seek opportunities for leadership to support student empowerment and success and to improve teaching and learning. Educators:

2.2.a. Shape, advance and accelerate a shared vision for empowered learning with technology by engaging with education stakeholders.

2.2.b. Advocate for equitable access to technology, high-quality digital content, and learning opportunities to meet the diverse needs of all students.

2.2.c. Model for colleagues the identification, experimentation, evaluation, curation and adoption of new digital resources and tools for learning.

2.3. Citizen

Teachers inspire students to positively contribute and responsibly participate in the digital world. Educators:

2.3.a. Create experiences for learners to make positive, socially responsible contributions and build inclusive communities online.

2.3.b. Foster digital literacy by encouraging curiosity, reflection, and the critical evaluation of digital resources.

2.3.c. Mentor students in safe, legal, and ethical practices with digital tools and content.

2.3.d. Model and promote management of personal data, digital identity, and protection of student data.

Learning Catalyst

2.4. Collaborator

Teachers dedicate time to collaborate with both colleagues and students to improve practice, discover and share resources and ideas, and solve problems. Educators:

2.4.a. Dedicate planning time to collaborate with colleagues to create authentic learning experiences that leverage technology.

2.4.b. Collaborate and co-learn with students to discover and use new digital resources and diagnose and troubleshoot technology issues.

2.4.c. Use collaborative tools to expand students' authentic, real-world learning experiences by engaging virtually with experts, teams and students, locally and globally.

2.4.d. Demonstrate cultural competency when communicating with students, parents and colleagues and interact with them as co-collaborators in student learning.

2.5. Designer

Teachers design authentic, learner-driven activities and environments that recognize and accommodate learner variability. Educators:

2.5.a. Use technology to create, adapt and personalize learning experiences that foster independent learning and accommodate learner differences and needs.

2.5.b. Design authentic learning activities that align with educational standards and use digital tools and resources to maximize learning.

2.5.c. Apply evidence-based instructional design principles to create innovative and equitable digital learning environments that support learning.

2.6. Facilitator

Teachers facilitate learning with technology to support student achievement of the 2016 ISTE Standards for Students. Educators:

2.6.a. Foster a culture where students take ownership of their learning goals and outcomes in both independent and group settings.

2.6.b. Manage the use of technology and student learning strategies in digital platforms, virtual environments, hands-on makerspaces or in the field.

2.6.c. Create learning opportunities that challenge students to use a design process and/or computational thinking to innovate and solve problems.

2.6.d. Model and nurture creativity and creative expression to communicate ideas, knowledge or connections.

2.7. Analyst

Teachers understand and use data to drive their instruction and support students in achieving their learning goals. Educators:

2.7.a. Provide alternative ways for students to demonstrate competency and reflect on their learning using technology.

2.7.b. Use technology to design and implement a variety of formative and summative assessments that accommodate learner needs, provide timely feedback to students and inform instruction.

2.7.c. Use assessment data to guide progress, personalize learning, and communicate feedback to education stakeholders in support of students reaching their learning goals.

Crompton, H. (2023). Evidence of the ISTE Standards for Educators leading to learning gains. Journal of Digital Learning in Teacher Education, 39(4), 201–219. https://doi.org/10.1080/21532974.2023.2244089

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SECTION 3: EDUCATION LEADERS

3.1. Equity and Citizenship Advocate

Leaders use technology to increase equity, inclusion, and digital citizenship practices. Education leaders:

3.1.a. Ensure all students learn from educators who are skilled in using technology to create authentic and engaging learning experiences.

3.1.b. Ensure access to technology, connectivity, inclusive digital content and learning environments that meet the needs of all students.

3.1.c. Model the use of technology in inclusive, healthy ways to solve problems and strengthen community.

3.1.d. Model the safe, ethical, and legal use of technology and the critical examination of digital content.

3.2. Visionary Planner

Leaders engage others in establishing a vision, strategic plan and ongoing evaluation cycle for transforming learning with technology. Education leaders:

3.2.a. Include a wide range of perspectives from the community to develop and sustain a vision for using technology to advance student learning and success.

3.2.b. Build on the shared vision by collaboratively creating a strategic plan that articulates how technology will be used to enhance learning.

3.2.c. Evaluate progress on the strategic plan, make course corrections, measure impact and scale effective approaches for using technology to transform learning.

3.2.d. Communicate effectively with stakeholders to gather input on the plan, celebrate successes and engage in a continuous improvement cycle.

3.2.e. Share lessons learned, best practices, challenges and the impact of learning with technology with other education leaders who want to learn from this work.

3.3. Empowering Leader

Leaders create a culture where teachers and learners are empowered to use technology in innovative ways to enrich teaching and learning. Education leaders:

3.3.a. Empower educators to exercise professional agency, build teacher leadership skills and pursue personalized professional learning.

3.3.b. Build the confidence and competency of educators to put the ISTE Standards for Students and Educators into practice.

3.3.c. Inspire a culture of innovation, creative problem-solving, and collaboration that allows the time to explore and develop teaching practices using digital tools.

3.3.d. Support educators in using technology to advance learning that meets the diverse learning, cultural, and social-emotional needs of individual students.

3.3.e. Develop learning assessments that provide a personalized, actionable view of student progress in real time.

3.4. Systems Designer

Leaders build teams and systems to implement, sustain and continually improve the use of technology to support learning. Education leaders:

3.4.a. Guide teams to establish equitable technology policies that support effective learning.

3.4.b. Ensure that resources and infrastructure for supporting effective use of technology for learning are sufficient and scalable to meet future demand.

3.4.c. Protect privacy and security by ensuring that students and staff observe effective privacy and data management policies.

3.4.d. Establish partnerships that support the strategic vision, achieve learning priorities and improve operations.

3.5. Connected Learner

Leaders model and promote continuous professional learning for themselves and others. Education leaders:

3.5.a. Set goals to remain current on emerging technologies for learning, innovations in pedagogy and advancements in the learning sciences.

3.5.b. Participate regularly in online professional learning networks to collaboratively learn with and mentor other professionals.

3.5.c. Use technology to regularly engage in reflective practices that support personal and professional growth.

3.5.d. Develop the skills needed to lead and navigate change, advance systems and promote a mindset of continuous improvement for how technology can improve learning.

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SECTION 4: COACHES

4.1. Change Agent

Coaches inspire educators and leaders to use technology to create equitable and ongoing access to high-quality learning. Coaches:

4.1.a. Create a shared vision and culture for using technology to learn and accelerate transformation through the coaching process.

4.1.b. Facilitate equitable use of digital learning tools and content that meet the needs of each learner.

4.1.c. Cultivate a supportive coaching culture that encourages educators and leaders to achieve a shared vision and individual goals.

4.1.d. Recognize educators across the organization who use technology effectively to enable high-impact teaching and learning.

4.1.e. Connect leaders, educators, instructional support, technical support, domain experts and solution providers to maximize the potential of technology for learning.

4.2. Connected Learner

Coaches model the ISTE Standards for Students and the ISTE Standards for Educators and identify ways to improve their coaching practice. Coaches:

4.2.a. Pursue professional learning that deepens expertise in the ISTE Standards in order to serve as a model for educators and leaders.

4.2.b. Actively participate in professional learning networks to enhance coaching practice and keep current with emerging technology and innovations in pedagogy and the learning sciences.

4.2.c. Establish shared goals with educators, reflect on successes and continually improve coaching and teaching practice.

4.3. Collaborator

Coaches establish productive relationships with educators in order to improve instructional practice and learning outcomes. Coaches:

4.3.a. Establish trusting and respectful coaching relationships that encourage educators to explore new instructional strategies.

4.3.b. Partner with educators to identify digital learning content that is culturally relevant, developmentally appropriate and aligned to content standards.

4.3.c. Partner with educators to evaluate the efficacy of digital learning content and tools to inform procurement decisions and adoption.

4.3.d. Personalize support for educators by planning and modeling the effective use of technology to improve student learning.

4.4. Learning Designer

Coaches model and support educators to design learning experiences and environments to meet the needs and interests of all students. Coaches:

4.4.a. Collaborate with educators to develop authentic, active learning experiences that foster student agency, deepen content mastery and allow students to demonstrate their competency.

4.4.b. Help educators use digital tools to create effective assessments that provide timely feedback and support personalized learning.

4.4.c. Collaborate with educators to design accessible and active digital learning environments that accommodate learner variability.

4.4.d. Model the use of instructional design principles with educators to create effective digital learning environments.

4.5. Professional Learning Facilitator

Coaches plan, provide and evaluate the impact of professional learning for educators and leaders to use technology to advance teaching and learning. Coaches:

4.5.a. Design professional learning based on needs assessments and frameworks for working with adults to support their cultural, social-emotional and learning needs.

4.5.b. Build the capacity of educators, leaders and instructional teams to put the ISTE Standards into practice by facilitating active learning and providing meaningful feedback.

4.5.c. Evaluate impact of professional learning and continually make improvements in order to meet schoolwide vision for using technology for high-impact teaching and learning.

4.6. Data-Driven Decision-Maker

Coaches model and support the use of qualitative and quantitative data to inform their own instruction and professional learning. Coaches:

4.6.a. Model best practices for educators and leaders for securely collecting, protecting and analyzing student data.

4.6.b. Support educators to interpret qualitative and quantitative data to inform their decisions and support individual student learning.

4.6.c. Partner with educators to empower students to use learning data to set their own goals and measure their progress.

4.7. Digital Citizen Advocate

Coaches model digital citizenship and support educators and students in recognizing the responsibilities and opportunities inherent in living in a digital world. Coaches:

4.7.a. Encourage educators and students to use technology to address community challenges.

4.7.b. Collaborate with educators, leaders and students to foster inclusive online spaces and healthy balance in their use of technology.

4.7.c. Support educators and students to critically examine the sources and accuracy of online content and evaluate underlying assumptions, biases, and perspectives.

4.7.d. Empower educators, leaders and students to make informed decisions to protect their personal data and curate the digital profile they intend to reflect.

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ADOPTING THE ISTE STANDARDS

The ISTE Standards are research-based and can meet local goals, needs and priorities. Adopting the standards in a school, district, state/province or nation takes different forms. Leaders may decide to use the standards in a variety of ways, including:

- As part of statewide or district-level expectations.

- To guide systemwide planning, including school improvement, technology or digital learning plans.

- To guide professional development plans and/or individual professional growth goals.

- To map curriculum.

- To ensure that lesson design and plans include the purposeful use of technology.

- As part of a learning management system or web system.

- In teacher preparation across the curriculum.

- To embed in job descriptions and hiring decisions.

Crompton, H., & Sykora, C. (2021). Developing instructional technology standards for educators: A design-based research study. Computers and Education Open 2 **https://doi.org/10.1016/j.caeo.2021.100044**

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