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Division of Instruction
Los Angeles Unified School District

Instructional Technology Initiative
LEADING WITH INSTRUCTION

Online version
of this report

ACKNOWLEDGMENTS

> *Learning does not stop at the end of the school day, and access to digital learning resources should not either.*
>
> *National Education Technology Plan 2017*

ABOUT THE INSTRUCTIONAL TECHNOLOGY INITIATIVE

The Instructional Technology Initiative (ITI) is a department within the Division of Instruction that supports all schools interested in 21st century instructional practices. The department's main focus is in providing professional learning opportunities founded on instructional frameworks that leverage technology in purposeful, personalized ways, such as the International Society for Technology in Education (ISTE) Standards. As a result of ITI's task force work, the ISTE Standards for Students, were formally adopted by the District in June 2016, making L.A. Unified the first school district in the nation to do so. Key efforts supported by ITI include digital citizenship, computer science, and the dissemination and integration of the ISTE Standards for Students.

To meet the needs of all schools, ITI establishes external partnerships and coordinates with departments throughout the District such as the Information Technology Division (ITD), Procurement Services Division, Parent and Community Services , Early Childhood Education Division and Integrated Library and Textbook Support Services. Schools that typically engage with ITI are the Board-approved 1:1 schools, Education Technology Grant schools, and schools demonstrating a desire to leverage their available technology in instructionally sound ways. Thus, being a 1:1 school is not required to engage with ITI. The ISTE Standards for Students focus on attitudes and dispositions that facilitate teaching and learning in the digital age, which aligns to ITI's mission to serve all schools regardless of device ratio or type.

" *Personalized learning adapts the pace of learning and the learning approach to the needs of individual learners, and it ties to their interests and passions and provides learner autonomy.*

Richard Cullatta
CEO
ISTE "

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BACKGROUND

The Common Core Technology Project (CCTP) was established in 2013 as a pilot effort serving Board-approved 1:1 schools with the goal of providing an "individualized, inter-active, and information rich educational experience by providing educators with devices to advance student learning, supporting the Common Core State Standards, and closing the digital divide." CCTP's main focus was on providing "computing devices [that would] facilitate multiple ac-tivities" to the Board-approved 1:1 schools. CCTP was initially evaluated by the American Institutes for Research (AIR), which had produced two evaluation reports. AIR findings (Margolin et al., 2014, 2015) concluded there was a strong focus on devices while instructional and professional learning needs of all stakeholders went unmet. AIR findings included recommendations such as:

- Provide school leaders with a variety of professional development approaches about how to successfully integrate technology into classroom instruction.

- Streamline operational processes to ensure prompt and effective technical support to classrooms.

- Leverage the insights of District stakeholders around instructional technology.

In addition to AIR's recommendations, the U.S. Department of Education - Office of Educational Technology (DOE) Director, Richard Culatta, and his team visited CCTP in December 2014 to serve as thought partners toward improving the program. The DOE team provided a set of recommendations as well suggesting the District:

- Develop and publish a District-wide instructional technology vision.

- Require and support schools in creating a school-site instructional technology plan that facilitates school-site goals.

- Establish ways to highlight examples of successful instructional technology integration.

To address these findings, former Superintendent Cortines called for a re-focusing of instructional technology priorities and halted CCTP efforts at the end of 2014.

In January 2015, former Superintendent Cortines renamed the Common Core Technology Project the Instructional Technology Initiative (ITI), bringing the focus of instruction to the forefront and to indicate its shift from a project serving select schools to a department serving all schools. In doing so, former Superintendent Cortines also called for the convening of a task force that would shape the direction of instructional technology for the District. From January 2015 to March 2015, ITI worked on designing a task force experience that would shape the mission and vision of instructional technology District-wide. Convened in April 2015 by Mr. Cortines, the ITI Task Force was carefully selected to ensure broad stakeholder representation from students, parents, and teachers to District administrators and community members. Originally chaired by Dr. Judy Burton, the task force met in both large, collaborative group settings and small workgroup models.

> " *The new mission of schools is to prepare students to work at jobs that do not yet exist, creating ideas and solutions for products and problems that have not yet been identified, using technologies that have not been invented.*
>
> *California State Education Department* "

The purpose of the ITI Task Force was to collectively research and identify a shared vision and ideal instructional practices to support the integration of technology District-wide. More importantly, it served as a space to discuss lessons learned from CCTP and how to improve on instructional technology practices moving forward. The ITI Task Force met once a week for over a year, and meetings were chaired by Dr. Frances Gipson, Chief Academic Officer. Feedback was elicited at each meeting, and each meeting was designed to provide a dynamic learning and immersing experience where attendees heard from students, parents, school leaders, and external experts. These efforts resulted in the ITI Task Force Recommendations (ITI, 2016), which is the culminating report presented to the Board of Education in June 2016 that was informed by a variety of research, resources, and rigorous discussions among District stakeholders.

The ITI Task Force Recommendations serves as the benchmark for ITI's progress in 2018.

INTRODUCTION

This report captures the progress made by ITI and partners since the June 2016 publication of the ITI Task Force, which has been the guiding document for instructional technology efforts District-wide. Since the ITI Task Force Recommendations were published, the role of instructional practice alongside technology integration has become more prominent and intertwined. As stated in the National Education Technology Plan (2017), technology in the classroom is no longer an option--it is a necessity to live and thrive in today's digital world. However, technology itself does not make an impact. Only when technology is coupled with rigorous, purposeful instructional practice will it make a difference in learning gains. For this reason, ITI is committed to leading with instruction.

Leading with instruction means ensuring sustainability of the instructional program, so that it is not dependent on the technical specifications of software or hardware, but relies on the creative, intentional, and rigorous instructional experience. Leading with instruction means centering equity and access, so that all learners receive the instructional scaffolding needed to thrive in a digital world. Leading with instruction means strategically selecting digital tools and resources that explicitly connect to established learning goals. While the tools leveraged for instruction may vary, the teacher's role in facilitating, creating, and designing the learning environment remains constant. Technology is not a replacement for teaching; therefore, instructional technology decisions should not lead with the tool.

> " A successful and sustainable digital learning environment is based on more than the functional features of a device or platform. The most important success factors are professional development and ongoing mentoring for teachers.
>
> *Dr. Kecia Ray*
> *Center for*
> *Digital Education* "

Leading with the Tool	Leading with Instruction	Differences
How does the device enhance instruction?	How does the teacher leverage the device to enhance instruction?	One question foregrounds the device while the other foregrounds the teacher's role. Digital tools in and of themselves do not enhance instruction.
How does a 1:1 model support students?	How does personalized learning support students?	Providing a device for each student does not ensure students will know how to best leverage them for personalized learning. Personalized learning requires a teacher to identify each student's needs based on instructional data gathered.
What are the usage rates?	How are students leveraging technology in the classroom? How are digital tools and resources integrated into the learning environment?	High usage could mean students are playing games or writing a paper. Low usage rates could mean devices may not be necessitated by the instructional plan yet. Therefore, usage rates alone do not tell the full instructional experience taking place.

Therefore, looking at technology use separate from pedagogy remains an ineffective practice. This paradigm shift continues to guide ITI's efforts District-wide.

In serving all schools, Superintendent King highlighted ITI as a critical component in the District's strategic plan toward achieving 100% graduation. ITI efforts identified in Dr. King's Transforming the Strategic Plan into Results included:

- A variety of models of professional learning supports

- Expansion of computer science education course offerings

- Integration of digital citizenship program efforts

- Collaboration with the Early Childhood Education Division

Thus, Instructional Technology plays an important role in preparing students to be college and career ready. With the proper pedagogical supports and access to technology, all students in LAUSD can be positioned for success.

ITI's collaborative efforts across the District have been recognized locally and nationally. For example, the Center for Digital Education recognized Dr. Gipson as a Top 30 Technologist for her leadership in steering the ITI Task Force. The Learning Counsel honored LAUSD as a Digital District for the instructional technology progress made. ITI Director, Sophia Mendoza, was recognized as a Consortium for School Networking (CoSN) NextGen Leader for her work in coordinating District-wide instructional technology efforts across the LAUSD's large and complex system. Lastly, ITI's partnership with the University of California, Los Angeles to expand computer science efforts was recognized as an exemplary partnership by the Southern California Professional Development Schools Consortium. Through the ITI Task Force Recommendations, the National Education Technology Plan, and AIR report findings, ITI has taken several steps in coordination with other District departments to ensure technology decisions are informed and led by instructional needs.

> *We make sure we're setting the essential conditions for all of these opportunities to thrive. Our strength is our sense of team around this work. We live that in our practice.*
>
> *Frances Gipson, Ph.D.*
> *Chief Academic Officer*
> *L.A. Unified*

FOUNDATIONS

The nature of ITI's work is interdisciplinary, which calls for a synthesis of rigorous, digital-age instructional frameworks and perspectives to develop and design pedagogical supports for all learners. The following resources guide all ITI efforts:

- Prosci ADKAR Change Management Model
- International Society for Technology in Education (ISTE)
- National Education Technology Plan (NETP)
- Digital Citizenship Resources
- K-12 Computer Science Framework

For example, to inform professional learning design and development, ITI draws upon a change management framework to build a continuum of supports. When building specific professional learning experiences for school leaders, the ISTE Standards are incorporated. To support discussions on digital citizenship, the Common Sense Education Scope and Sequence is used alongside ISTE's national resources. Maintaining a pulse on national instructional trends requires ITI to annually review the National Education Technology Plan. Lastly, to ensure the District is integrating a rigorous, authentic curriculum for computer science, the K-12 Computer Science Framework is referenced.

The toolkits, standards and frameworks leveraged by ITI inform all aspects of program design and implementation.

CHANGE MANAGEMENT

Providing personalized learning opportunities for all learners across the District requires an instructional paradigm shift that is gradual in its implementation and supported by an infrastructure that is prepared to address it. In order for the District to embrace this shift, a change management model is needed to guide its implementation among school leaders. ITI adheres to the ADKAR Model to ensure all programs are designed and developed to support stakeholders impacted by change.

The ADKAR Model addresses the following goals for change:

- **A**wareness of the need to change
- **D**esire to participate and support the change
- **K**nowledge of how to change
- **A**bility to implement the change
- **R**einforcement to keep the change in place

> "ITI introduced our staff to the powerful research regarding change management. Having learned about ADKAR, we were able to make the necessary shifts that helped us administer changes in our understandings toward leveraging digital resources together with our students.
>
> *Mauro Bautista*
> *Principal*
> *Felicitas & Gonzalo Mendez High School*"

Creating awareness at all levels of the District is founded on answering the following questions: Why do we need to change? What is the purpose? Why is this change needed at this time? The compelling reason guiding the need for an instructional paradigm shift is the District's goal to prepare students for a 21st century workforce. Without implementing digital learning tools in daily instruction, students will miss out on opportunities to practice real-world skills needed to thrive in a growing digital environment.

Prosci® ADKAR® Model
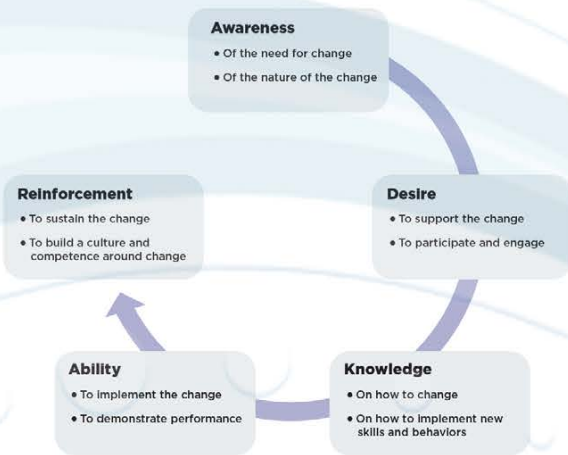
When awareness has been effectively developed, desire to pursue this change follows because school leaders recognize and understand the need to change. This is often the most challenging step in the change management model as it depends on personal choice of the individual to choose to participate or not. For this reason, effectively communicating compelling examples is necessary to inform all District stakeholders about the critical need to shift instructional practice to incorporate digital learning tools.

Upon cultivating a desire to change throughout the District, the next step is developing stakeholder knowledge in how to carry out the change. Professional learning opportunities for all stakeholders is imperative to educate leaders on how to incorporate digital learning tools and how to adapt instruction to the opportunities afforded by digital tools. For this reason, this report will highlight various schools, teachers, and principals who model instructional practices enhanced by digital learning tools.

Change is not immediate; it will take time and be an ongoing process. Through increasing professional learning opportunities and embracing a District-wide culture of exploring and experimenting, the District would support the ability for educators to apply what they have learned. More importantly, continuous professional learning opportunities would help the District determine the rate of adoption of personalized learning practices. Accepting that this change will require sustained effort and time to implement is critical to the success of an instructional paradigm shift.

Sustaining a change initiative requires consistent reinforcement, which must occur at all levels of District leadership. Thus, ensuring leaders understand and continue to make progress toward personalized learning environments is imperative. With leadership support alongside highlighting exemplary schools and school leaders, the instructional paradigm shift required to support today's students can be seen as a possibility for all stakeholders.

INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION (ISTE)

The ISTE Standards provide a lens to learning, teaching, and leading in the digital age and are widely recognized and adopted worldwide. In 2016, LAUSD became the first district in the nation to formally adopt the 2016 ISTE Standards for Students (ISTE, 2017d). Through ITI's collaborative partnership with ISTE, the District has participated in the refresh of the ISTE Standards for Students, ISTE Standards for Educators, and the ISTE Standards for Administrators, providing in-depth feedback that has influenced the final released versions.

ITI efforts are grounded in the following ISTE Standards and framework:

- ISTE Standards for Students
- ISTE Standards for Educators
- ISTE Essential Conditions

The ISTE Standards for Students provide a framework for teaching and learning in-depth, digital age skills and attributes amplified through technology. Each standard emphasizes pedagogy enhanced with technology to support all learners in engaging and thriving in a connected, digital world. The names for each standard are indicative of the role of learners as leaders and change agents in today's digital world.
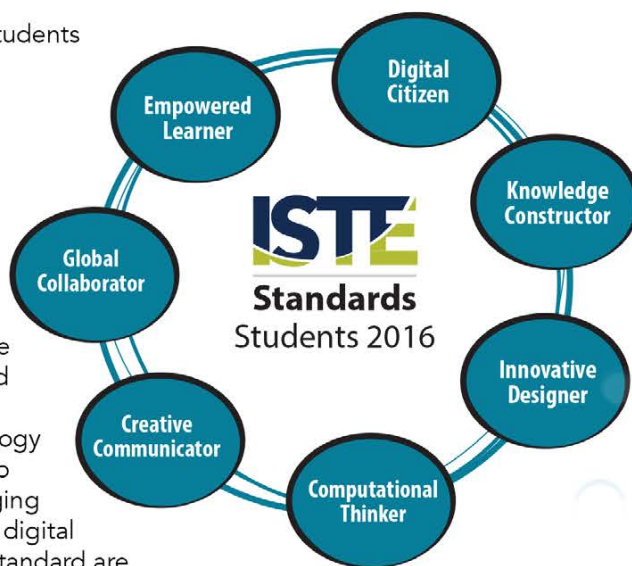
The ISTE Standards for Students call for:

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

- **Digital Citizens:** Students recognize the rights, responsibilities and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.

- **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.

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

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

> " *The professional learning opportunities designed and delivered by ITI have provided the guidance and direction that our staff needed. For example, we learned about the ISTE Standards through ITI, which has facilitated our staff's ability to engage in deep instructional conversations. Attending ITI's cohort model PD has helped our staff gain new insight and direction on leveraging instructional technology.*
>
> *Jose Razo*
> *Principal*
> *Telfair Avenue Elementary School* "

- **Creative Communicators:** 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.

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

The ISTE Standards for Educators (ISTE, 2017c) call for teachers to be empowered professionals and learning catalysts who embrace the following roles:

- **Learner:** Educators continually improve their practice by learning from and with others and explorinvg proven and promising practices that leverage technology to improve students learning.

- **Leader:** Educators seek out opportunities for leadership to support students empowerment and success and to improve teaching and learning.

- **Citizen:** Educators inspire students to positively contribute and responsibly participate in the digital world.

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

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

- **Facilitator:** Educators facilitate learning with technology to support student achievement of the ISTE Standards for Students.

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

The ISTE Essential Conditions (2017a) serves as a research-backed framework to guide implementation of the ISTE Standards, instructional technology planning, and system-wide change. Leveraging the ISTE Standards helps educators to skillfully mentor and inspire students in amplifying learning with technology and challenging students to be agents in their own learning as well.

To effectively leverage technology for teaching and learning, ISTE recommends 14 critical elements:

Shared Vision: Proactive leadership develops a shared vision for educational technology among all education stakeholders, including teachers and support staff, school and district administrators, teacher educators, students, parents, and the community.

Technical Support: Educators and students have access to reliable assistance for maintaining, renewing and using technology and digital learning resources.

Empowered Leaders: Stakeholders at every level are empowered to be leaders in effecting change.

Curriculum Framework: Content standards and related digital curriculum resources align with and support digital age learning and work.

Implementation Planning: All stakeholders follow a systematic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communication technology and digital learning resources.

Student-Centered Learning: Planning, teaching, and assessment all center on the needs and abilities of students.

Consistent and Adequate Funding: Ongoing funding supports technology infrastructure, personnel, digital resources and staff development.

Assessment and Evaluation: Teaching, learning, leadership and the use of information and communication technology and digital resources are continually assessed and evaluated.

Equitable Access: All students, teachers, staff and school leaders have robust and reliable connectivity and access to current and emerging technology and digital resources.

Engaged Communities: Leaders and educators develop and maintain partnerships and collaboration within the community to support and fund the use of information and communication technology and digital learning resources.

Skilled Personnel: Educators, support staff and other leaders are skilled in the selection and effective use of appropriate digital learning resources.

Support Policies: Policies, financial plans, accountability measures, and incentive structures support the use of digital tools and resources for both learning and district/school operations.

Ongoing Professional Learning: Educators have ongoing access to technology-related professional learning plans and opportunities as well as dedicated time to practice and share ideas.

Supportive External Context: Policies and initiatives at the national, regional, and local levels support schools and teachers preparation programs in the effective implementation of technology for achieving curriculum and learning technology standards.

> *The ISTE Standards are about learning, not tools.*
>
> *ISTE Standards for Educators*

The ISTE Essential Conditions identifies the system-level elements that create a learning environment where instructional technology is effectively implemented. The ISTE Standards identify how individuals can engage their roles to lead instructional technology implementation at their respective sites and locally create a learning environment where students can learn to be successful in a growing digital world.

NATIONAL EDUCATION TECHNOLOGY PLAN (NETP)

The 2017 National Education Technology Plan (NETP) sets a national vision and plan for learning enabled by technology through building on the work of leaders across the nation-leading education researchers; district, school, and higher education leaders; classroom teachers; developers; entrepreneurs; and nonprofit organizations. The goal of the NETP is to make everywhere, all-the-time learning possible for all students to ensure the nation's future leaders have opportunities for personal growth and personalized learning opportunities. The NETP also highlights the Every Student Succeeds Act (ESSA), which calls for districts to develop comprehensive strategies that infuse technology. ESSA is a critical federal component in striving to provide personalized learning opportunities for all learners.

The NETP (2017) identifies five areas that require active attention and responsibility to ensure effective instructional technology implementation:

- **Learning - Engaging and Empowering Learning through Technology:** All learners will have engaging and empowering learning experiences in both formal and informal settings that prepare them to be active, creative, knowledgeable, and ethical participants in our globally connected society.

- **Teaching - Teaching with Technology:** Educators will be supported by technology that connects them to people, data, content, resources, expertise, and learning experiences that can empower and inspire them to provide more effective teaching for all learners.

- **Leadership - Creating a Culture and Conditions for Innovation and Change:** Embed an understanding of technology-enabled education within the roles and responsibilities of education leaders at all levels and set state, regional, and local visions for technology in learning.

- **Assessment - Measuring for Learning:** At all levels, our education system will leverage the power of technology to measure what matters and use assessment data to improve learning.

- **Infrastructure - Enabling Access and Effective Use:** All students and educators will have access to a robust and comprehensive infrastructure when and where they need it for learning.

When the ITI Task Force Recommendations were published in June 2016, the report relied heavily on the themes throughout the 2015 NETP report. An important shift had been made in the 2015 NETP from the 2010 NETP where the original question was, "should we use technology?" The 2015 NETP and all other reports thereafter now operate from the perspective that using digital learning tools is no longer an option; it is imperative if we are to prepare students for today's world. The 2017 NETP report, thus, is founded on providing greater equity and accessibility for all students, and it continues to serve as a foundation for ITI's supports and services.

> As a result of attending the ITI cohort PD and talking about our learners, conversations amongst our teachers are now more focused on instruction rather than the device. Writing our school instructional technology plan took some time, but that is because we sat down together as a team to create our instructional vision and establish a foundation for our goals regarding technology in the classroom. But now that we have this vision in place, our teachers are much more comfortable in talking about and leveraging technology in the classroom to support our students.
>
> *Elizabeth Lester*
> *Coordinator*
> *Joseph LeConte*
> *Middle School*

DIGITAL CITIZENSHIP RESOURCES

In previous years, the phrase "digital citizenship" connoted cyberbullying, privacy, safety and security. ITI's model of digital citizenship, however, encompasses important concepts, such as empowerment, community, and collaboration (Boyd, 2014; CSE 2017, 2009; ISTE, 2017b; Monterosa, 2017; O'Keeffe & Clarke-Pearson, 2011; Ohler, 2011). It is important to teach digital citizenship to build awareness of just how connected and visible all learners are when it comes to digital spaces. Helping learners to understand the implications of their digital footprint, realize their agency in participating in online conversations and recognize privacy and safety concerns are all part of being a digital citizen.

Common Sense Education (CSE) provides high-quality digital literacy and citizenship programs to educators and school communities. Among the many CSE resources available, ITI leverages the comprehensive K–12 Digital Citizenship Curriculum, which focuses on the following topics:

- Internet Safety
- Privacy & Security
- Relationships & Communication
- Cyberbullying & Digital Drama
- Digital Footprints & Reputation
- Self-Image & Identity
- Information Literacy
- Creative Credit & Copyright

ISTE's vision for digital citizenship is focused on three roles:

- Digital Agent
  - Leverages existing technologies to solve social problems
  - Actively influences societal norms
  - Advocates for equal digital rights and access for all
- Digital Interactor
  - Communicates with empathy via digital channels
  - Collaborates with others to accomplish goals
  - Applies critical thinking to all online sources
- Digital Self
  - Proactively manages and establishes their digital identity
  - Respects the digital privacy and rights of others
  - Understands the permanence of the digital world

ITI is committed to cultivating the empowering and collaborative practices of online engagement by leveraging Common Sense Education and ISTE resources to inform the design, development, and support of digital citizenship efforts District-wide.

> " *Learning the basics of being a digital citizen is a critical skill for all children in the 21st century.*
>
> *Hadi Partovi*
> *CEO*
> *Code.org* "

K-12 COMPUTER SCIENCE (CS) FRAMEWORK

Computing has become an integral part of our world (Code.org, 2017; K12CS, 2016; Margolis et al., 2010). To actively participate and engage in a world saturated with computers, computer science education is key. Computer science education is a learning experience focused on creating computational artifacts with a practical, personal, or societal impact. While coding is integral to computer science, it does not represent the breadth of application that computer science education has in today's world. To create a learning environment where this is possible, ITI leverages the K-12 Computer Science Framework, which promotes a vision in which all students become active producers and creators of computing technologies.

The framework is founded on five significant themes:

- **Equity:** Issues of equity, inclusion, and diversity are central to expanding computer science opportunities.
- **Powerful ideas:** Authentic, powerful ideas that can be used to solve real-world problems and connect understanding across multiple disciplines is core to the mission of computer science education.
- **Computational thinking:** Abstraction, modeling, and decomposition intersect with CS concepts such as algorithms, automation, and data visualization.
- **Breadth of application:** Computer science involves physical systems and networks; the collection, storage, and analysis of data; and the impact of computing on society.

The core concepts of the K-12 CS Framework represent major content areas in the field of computer science:

- **Computing Systems:** An understanding of hardware and software is useful when troubleshooting a computing system that does not work as intended.
- **Networks and the Internet:** Computing devices typically do not operate in isolation. Networks connect computing devices to share information and resources and are an increasingly integral part of computing.
- **Data and Analysis:** Computing systems exist to process data. The amount of digital data generated in the world is rapidly expanding, so the need to process data effectively is increasingly important.
- **Algorithms and Programming:** Algorithms and programming control all computing systems, empowering people to communicate with the world in new ways and solve compelling problems.
- **Impacts of Computing:** An informed and responsible person should understand the social implications of the digital world, including equity and access to computing.

The core practices represent the attitudes and dispositions that computationally literate students use to fully engage with the core concepts of computer science:

- **Fostering an Inclusive Computing Culture:** Considering the needs of diverse users during the design process is essential to producing inclusive computational products.
- **Collaborating Around Computing:** Students should use collaborative tools to effectively work together and to create complex artifacts.

> " Computers are fast, reliable, and powerful machines that allow us to digitally construct, analyze, and communicate our human experience. More than just a tool, computers are a readily accessible medium for creative and personal expression. Computers are both the paint and the paintbrush.
>
> *K-12 Computer Science Framework 2016* "

- **Recognizing and Defining Computational Problems:** Solving a problem with a computational approach requires defining the problem, breaking it down into parts, and evaluating each part to determine whether a computational solution is appropriate.

- **Developing and Using Abstractions:** Using generalized solutions and parts of solutions designed for broad reuse simplifies the development process by managing complexity.

- **Creating Computational Artifacts:** Students create artifacts that are personally relevant or beneficial to their community and beyond, such as programs, simulations, visualizations, digital animations, robotic systems, and apps.

- **Testing and Refining Computational Artifacts:** Students engage in a deliberate and iterative process to respond to the changing needs and expectations of end users and improve the performance, reliability, usability, and accessibility of artifacts.

- **Communicating About Computing:** Students write clear comments, document their work, and communicate their ideas through multiple forms of media using precise language and carefully considering possible audiences.

Together, the core concepts and practices are designed to integrate and offer an authentic, meaningful learning experience for students engaging in computer science education.
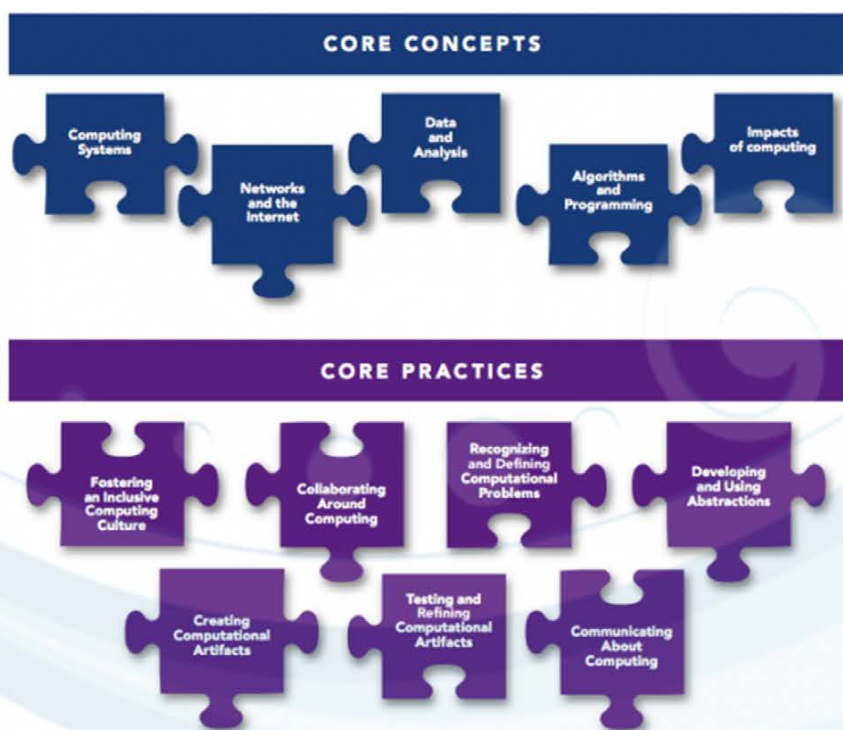
Source: K12 Computer Science Framework

> " Only 13 percent of AP computer science test takers identified as African-American or Latino, while these students made up more than 24 percent of test takers across all AP exams in 2015. Ensuring access for all students to this foundational knowledge is important preparation for college, careers and civic participation. Becoming digitally literate, critical and constructive thinkers about how to use technology responsibly should be required learning for everyone.
>
> Jane Margolis
> Senior Researcher
> University of California, Los Angeles Center X "

LEADERSHIP EXPECTATIONS

ITI continues to uphold the leadership expectations set forth in the ITI Task Force Recommendations (ITI, 2016; NETP, 2017). These leadership expectations frame ITI's approach to working with and supporting school leaders throughout the District. ITI aims to cultivate leaders who:

- Cultivate learner agency leveraging digital tools and resources.
- Identify a leadership team at their school site that deeply embraces and creatively pursues personalized learning.
- Develop a school culture where teachers are facilitators of knowledge.
- Recognize and understand that instructional goals can call for a variety of device ratios and usage in the learning environment.

Leaders who recognize the instructional strides that can be made with digital tools support effective instructional practices by:

- Advocating for personalized learning opportunities founded on the ISTE Standards and/or Essential Conditions.
- Incorporating District-approved digital tools and resources.
- Developing an instructional technology plan with measurable goals that align with various District initiatives.
- Researching alternative ways to secure funding and other resources for greater instructional technology support and implementation.
- Staying up-to-date on instructional frameworks that address the implementation of digital tools for relevant, personalized learning experiences.

Leaders who support the use of digital tools in instruction recognize the college and career implications for all learners by:

- Understanding the importance of digital citizenship.
- Mandating digital citizenship training for school staff.
- Incorporating digital citizenship curriculum across all content areas.

ITI's leadership expectations provide guidance on creating a 21st century learning environment for all students and staff.

> "A key area for engagement is with teacher educators, those who are preparing future educators. We want these future educators to feel confident and prepared to begin their teaching careers as leaders when it comes to the effective use of technology in the classroom,
>
> *Joseph South*
> *Chief Learning Officer*
> *ISTE*

CONCLUSION

Leading with instruction means making informed decisions based on rigorous research and promising practices. Common across the instructional frameworks and perspectives informing ITI's work are equity, authenticity, and participation.

Equity ensures all learners are provided relevant, foundational knowledge that equips them to lead, engage, and impact today's interconnected world. Authentic learning environments that mirror the ubiquity of technology inside the classroom positions all learners for success beyond the classroom. Participating as an active consumer and producer of knowledge and/or of computing artifacts is critical in a world saturated with digital tools and collaborative, online communities.

This collection of frameworks and perspectives that guide ITI enable the District lead with instruction and provide a rigorous, rich 21st learning experience for all learners. What follows is a progress report of the transformative impact of ITI's work across the District and the ways ITI strives to create a learning environment that meets the broader ISTE Essential Conditions.

> *We can no longer lead with the tools, we have to ensure there is a lesson design that provides the opportunity for students to be agents of their own learning where the instructor acts as a facilitator.*
>
> *Sophia Mendoza*
> *Director*
> *Instructional Technology Initiative*

In 2016, ITI released the ITI Task Force Recommendations (TFR), which provided the vision for instructional technology District-wide founded on stakeholder input, the ISTE Standards for Students, and the National Education Technology Plan. The 2016 Instructional Technology Initiative TFR provided direction. The 2018 report, titled Leading with Instruction, provides results.

The 2018 Leading with Instruction report provides an update on ITI's progress toward meeting or exceeding the recommendations presented to the Board of Education in June 2016. In the Instructional Technology Initiative TFR, the focus was on providing a general foundation for personalized learning. Instructional Technology Initiative remains committed to this original goal with the 2018 report demonstrating a growing focus on computer science education.

This section identifies the ways in which ITI has met, exceeded, or continues to make progress toward the 2016 recommendations. To demonstrate ITI's progress and growth, the original recommendations have been updated to highlight six key program components, which are informed by the ISTE Essential Conditions that ITI adheres to in supporting all schools:

> " *Students with strong aspirations show that they have dreams for the future, and are inspired to do what it takes in the present to work toward their fulfillment. However, there is no mold for student aspirations; they will be as different and unique as the young people who have them. Schools have a responsibility to support 'dreaming and doing' in ways that ensure the success of all students.*
>
> *Dr. Russell J. Quaglia*
> *President & Founder*
> *Quaglia Institute*
> *for Student*
> *Aspirations (QISA)*
> "

2016 ITI Task Force Recommendations

- **Recommendation 1**: Enact a continuum for achieving learner agency for students and school leaders.

- **Recommendation 2**: Support teachers in exploring curricular content that is interdisciplinary and provides authentic, real-world application.

- **Recommendation 3**: Support personalized learning initiatives District-wide.

- **Recommendation 4**: Integrate a learning management system (LMS) in support of a learner-centered learning environment.

2018 ITI Program Components

- **Continuum of Support Models:** ITI's main program component is developing, designing, and delivering professional learning opportunities for certificated staff across the District.

- **Interdisciplinary, Authentic, Real-world Content:** ITI strives to create a learning environment that is an authentic space that reflects real life.

- **Partnerships, Policies, & Practices for Personalized Learning:** ITI leverages key partnerships, supports critical policy updates and developments, and engages in capacity-building of staff to infuse ITI's District-wide efforts with the latest instructional trends and support for personalized learning.

- **District-Approved, Learner-Centered Digital Tools & Resources:** In collaboration with the Procurement Services Division, ITI supported the establishment of the Unified Digital Instructional Procurement Plan (UDIPP), which is a plan that guides vendors in ensuring their various digital instructional software, licenses, or online subscriptions meet District requirements.

2016 ITI Task Force Recommendations

- **Recommendation 5**: Design and deliver learner-driven professional learning opportunities for school leaders, teachers, students, parents, board members, and community and business leaders.

- **Recommendation 6**: Develop and adopt District-wide tools to measure lesson effectiveness.

2018 ITI Program Components

- **Cross-Stitching & Capacity-Building Efforts**: ITI has engaged in cross-stitching and collaborating locally with central office teams, schools throughout the District, and nationally with external partners to address District-needs.

- **Meaningful & Complex Learner-Centered Measures**: ITI remains committed to collecting and curating LAUSD exemplary promising practices of effective instructional technology implementation that impact learning.

For the purposes of this report, key ITI efforts will be highlighted for each program component to demonstrate the varied ways ITI has implemented changes.

> " The integration of technology and pedagogy to maximize learning must meet four criteria. It must be irresistibly engaging; elegantly efficient (challenging but easy to use); technologically ubiquitous; and steeped in real-life problem solving.
>
> *Tom Vander Ark*
> *CEO*
> *Getting Smart* "

CONTINUUM OF SUPPORT MODELS

Addressing 2016 ITI Task Force Recommendations

Recommendation 1	**Need 4**	**Need 5**
Enact a continuum for achieving learner agency for students and school leaders.	Ensure District leaders understand and adopt a change management approach to leveraging digital tools and resources for instruction.	Repurpose staffing according to the instructional goals and vision to achieve personalized learning.

In order to understand how to leverage digital tools effectively, school leaders require opportunities to experience the tools themselves in an instructional context (NETP, 2017; Lemke et al., 2009; Margolin et al. 2015, 2016). ITI's main program component is developing, designing, and delivering professional learning opportunities for certificated staff across the District. To make progress toward a personalized learning environment in all schools, ITI also reimagined models of support by repurposing the role of the Instructional Technology Facilitator (ITF) by dedicating each ITF to a specific school identified as a Practitioner School to serve as an instructional technology guide—not a technical assistant. With direct, ongoing support from an ITF, Practitioner Schools are able to focus on reimagining and examining how digital tools can be leveraged to create rigorous and personalized learning environments for all learners. For example, Practitioner School 1.0 focused on the integration and use of a learning management system (LMS). Practitioner School 2.0 centered on cultivating computational thinking as a literacy under the District-wide adoption of the International Society for Technology in Education (ISTE) Standards for Students. The PS 2.0 iteration revealed the utility of the ISTE Standards as a framework to guide instructional practice, especially in introducing and exploring computational thinking. Thus, ITI is committed to iterating upon learnings to be able to provide rich professional learning experiences to certificated staff across the District.

In developing and adopting a continuum to support learner agency, it was important to design professional learning experiences that identified all stakeholders as learners— students, teachers, and administrators. In doing so, ITI developed a variety of support models in order to impact all stakeholders District-wide. ITI offers 5 professional learning strands that are designed and developed along an ADKAR-inspired continuum of engaging in and pursuing instructional change:

> " To be a Practitioner School is to engage in the practice of leading with computational thinking (CT) because we are committed to providing our students with a strong CT literacy that will enable them to become the problem solvers and designers of the future.
>
> *Paula Cordoba*
> *Principal*
> *San Pascal*
> *STEAM Magnet*
> "

Continuum	Title	Summary	Audience
Awareness	C-STEM Intensive Algebra 1 + Computing (16-hour training over 2 days)	This computer science focused session engages educators in hands-on activities with physical computing materials.	Individual certificated staff
	Local District Leadership Sessions (90-minute trainings/ monthly)	The LD Leadership Sessions is comprised of 8 sessions focused on learning and applying the foundational elements of leveraging digital tools and resources for personalized learning.	Local District Superintendents
	ISTE Suite of Professional Learning (2-hour sessions / throughout the school year)	The ISTE Suite is a set of 7 sessions, beginning with a prerequisite course, focused on unpacking and integrating the ISTE Standards for Students.	Individual certificated staff
	Navigating Computer Science Education (CSE) (6-hour training / throughout the school year)	This session focuses on exploring the vision of CSE and reviewing current standards and instructional frameworks.	Individual certificated staff
	Computer Science Fundamentals (CSF) (8-hour training / throughout the school year)	This session engages participants in hands-on activities focused on computer science, pedagogy, and strategies for teaching "unplugged" classroom activities.	Individual certificated staff
	Creative Computing: Beginner - Course 1 (21-hour training over 3	This session focuses on learning the foundations of Scratch programming software and leveraging Scratch as an interdisciplinary activity.	Individual certificated staff
Desire	Learning through Robotics (4.5-hour training / throughout the school year)	This session invites educators to explore computational thinking through physical computing devices.	Individual certificated staff
	C-STEM Physical Computing (14-hour training over 2 days/ throughout the school year)	This session invites participants to engage in physical computing activities.	Individual certificated staff
Knowledge	Creative Computing: Advanced - Course 2 (21-hour training over 3 days)	This session focuses on building upon the foundations of Scratch programming software and leveraging Scratch as an interdisciplinary activity.	Individual certificated staff
Ability	Wonder Workshop (28-hour training over 4 days)	This session invites participants to learn the foundations of computer science while engaging in physical computing with a Dash robot.	Individual certificated staff

Continuum	Title	Summary	Audience
Ability	Instructional Leadership Cohort (18-hour training over 3 days)	The ITI Instructional Leadership Cohort provides school instructional leadership teams guidance in developing an informed, effective plan for digital learning tailored to each school's needs.	Individual certificated staff
	Teacher Leader Network (30-hour trainings per semester)	The Teacher Leader Network (TLN) provides participants with an opportunity to establish 21st century pedagogical goals and practice cultivating a learning environment that incorporates the ISTE Standards and the K12 Computer Science Framework.	Individual certificated staff
	Computer Science for Experienced Educators	This session focuses on promising practices, collaborating with neighboring schools, and learning about computer science initiatives across the District.	Individual certificated staff
Reinforcement	Summer Cohorts: Code.org & Exploring Computer Science (35-training over 5 days)	This 5-day intensive invites participants to explore the University of California approved courses focused on computer science.	Individual certificated staff
	Practitioner Schools 2.0 Model (40-hour training over 5 days + ongoing direct support throughout the school year)	The Practitioner School Model is an evolving model of support founded on 21st century instructional frameworks. Through this model, ITI targets schools who demonstrate instructional technology growth and provides direct support through an Instructional Technology Facilitator to guide school leaders in cultivating 21st century learning environments for students.	School site
	Instructional Technology Facilitator (ITF) Trainings (24-hours of training during each month)	ITF trainings are internal professional learning sessions founded on mentoring and coaching practices that focus on developing a deep understanding of 21st century frameworks such as ISTE Standards, TPACK, K12 Computer Science Framework, and much more. These trainings help ITFs serve as an invaluable support resource to their assigned Practitioner School site.	Instructional Technology Facilitator

Since 2016, ITI has delivered over 290 professional learning sessions to school leaders across the District. The following table provides a detailed overview of professional learning efforts thus far:

FY	Training Type	Subcategory	# of Sessions	# of Training Participants
2016-17	Individual	International Society for Technology in Education	57	1002
		Computer Science	14	140
		Teacher Leader Network	12	485
	Individual Total		83	1627
	Team	Cohort	38	2372
		Practitioner School 1.0	58	101
		Practitioner School 2.0	1	38
	Team Total		97	2511
2016-17 Total			180	4138
2017-18	Individual	Computer Science	4	20
		International Society for Technology in Education	18	373
		Instructional Technology Facilitator	2	26
		Teacher Leader Network	5	104
		Webinar	1	26
	Individual Total		30	549
	Team	Cohort	28	463
		Elementary Cohort	36	267
		Practitioner School 2.0	8	202
	Team Total		72	1186
2017-18 Total			102	1735

Each professional learning session offered by ITI has an evaluation component where feedback is elicited, reviewed, and implemented to ensure all professional learning supports are perceived as effective by attendees.
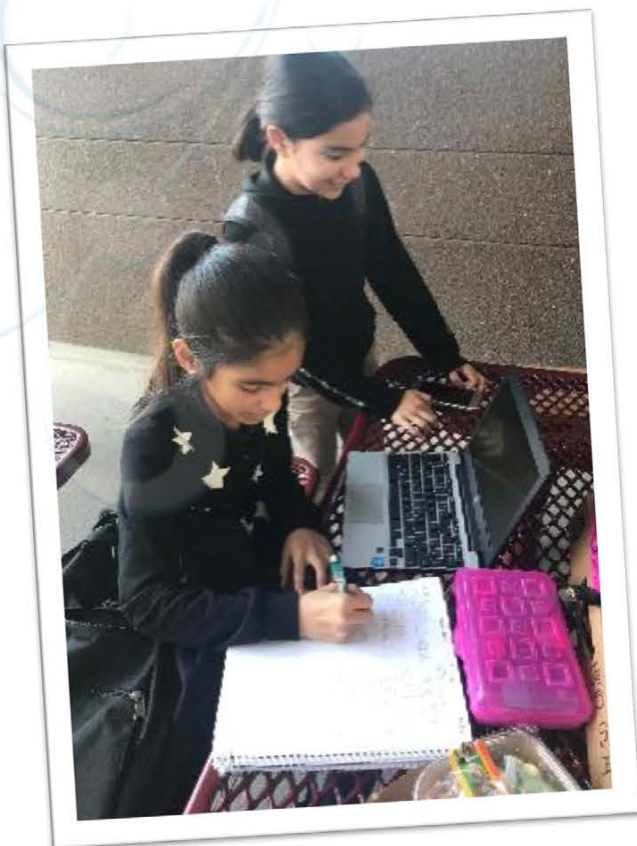
Due to rapid developments of technology and its role in classrooms across the District, ongoing professional learning remains a fundamental element of instructional technology efforts. For this reason, ITI engages in ongoing direct support to schools throughout the year. In addressing the various instructional needs across the District, ITI engages in hybrid models of support such as in-person support by scheduling school site guidance visits in addition to leveraging District-approved digital tools to provide virtual guidance. For example, ITI held webinars throughout 2016-2017, where school leaders participated in synchronous support (i.e. logged on at a specific time) to receive virtual guidance. Asynchronous support is also available by archiving ITI-delivered webinars for later viewing.

"
I believe there really is a growing consensus that schools need to shift in some dramatically new directions. There's also a greater urgency, seeing where we're at and where our students need to be.

Milton Chen
Executive Director
Edutopia
"

As demonstrated in the Center for Digital Education's Digital District Survey results, ITI's practices align with national trends across school districts.

Survey Question: How is your district providing professional development (in live or virtual form) regarding the use of technology for instructional staff?

- 2% ■ The district does not provide technology-based professional development.

- 29% ■ The district provides technology-based professional development at least once a year.

- 15% ■ The district mandates ongoing technology-based professional development and requires attendance multiple times a year.

- 54% ■ The district mandates ongoing technology-based professional development, requires attendance multiple times a year, and provides training on the newest forms of technology including the use of social media.

Source: Center for Digital Education

> "Our school already had a staff with a culture of collaborative learning but we needed support in helping us integrate instructional technology to empower students with critical thinking and problem solving practices. Being a Practitioner School allowed us to partner with the Division of Instruction's ITI team to help enhance our instructional practices through the lens of the ISTE Standards for Students. Our partnership with ITI as a Practitioner School has made a positive difference for our entire Bravo family in helping us prepare our students to thrive in today's digital world.
>
> Gina Williams-Wakasa
> Assistant Principal
> Francisco Bravo
> Medical Magnet
> High School"

INTERDISCIPLINARY, AUTHENTIC, CONNECTED CONTENT

Addressing 2016 ITI Task Force Recommendations

Recommendation 2
Support teachers in exploring curricular content that is interdisciplinary and provides authentic, real-world application.

Need 1
Ensure students and educators have broadband access to the internet and adequate wireless connectivityt at school.

> " *When students in underserved schools are denied access, experience and role models in computing, they are left further behind.*
>
> *Jane Margolis*
> *Senior Researcher*
> *University of California, Los Angeles Center X* "

When the curriculum reflects real life, the learning environment becomes an authentic space where learners can develop their knowledge, insights, self-confidence, and college/career aspirations, especially in an increasingly digitally connected environment (Ito et al., 2009; Mahiri, 2011; NETP, 2017; OET, 2015; Sanchez et al, 2012). Ensuring schools have connectivity means learners have access to a global knowledge base. In LAUSD, the Information Technology Division (ITD) maintains the following connectivity standards:

- Ensure all schools have scalable fiber capacity.
- Monitor usage on a daily basis to identify schools that may need incremental bandwidth support.
- Provide all schools with a 6 Mbps per student allocation.

In 2013, the White House set a goal that 99 percent of students across the country would have internet access at a minimum of 100 megabits per second per 1,000 students, with a target speed of one gigabit per second by 2018. LAUSD continues to meet and exceed this national standard. With this infrastructure in place, ITI supports school leaders in creating 21st century learning environments that can empower students to thrive in the digital age. To cultivate such environments, ITI has committed to helping school leaders infuse authentic instructional practices that promote exploration and interdisciplinary experiences through three key efforts:

- Digital Citizenship
- Computer Science Education
- Various communication efforts

For example, greater connectivity in today's global world requires greater importance placed on educating learners how to critically and conscientiously engage online through authentic digital citizenship practices (CSE, 2017; ISTE, 2017b; Monterosa, 2017; NETP, 2017). Computer science education calls attention to the ways computers have impacted society, inviting all learners to be creators of technology while developing their capacities in critical thinking and problem solving, collaboration, and communication (K12CS, 2016; ISTE, 2017d). To support these efforts District-wide, ITI has taken several steps to ensure all stakeholders have access to up-to-date instructional resources by curating a monthly ITI Newsletter that highlights voices from the field.

DIGITAL CITIZENSHIP

The goals of ITI's District-wide digital citizenship program are as follows:

- To educate all learners about the implications of online engagement as it relates to academic and professional
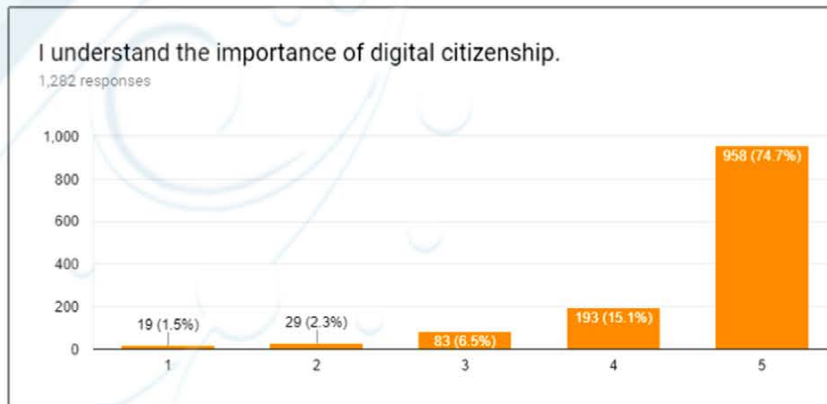
- To support all learners in harnessing the collaborative and open nature of online spaces for teaching and learning.

- To develop critical consumers and producers of knowledge in a growing digital world.

Since 2014, ITI has partnered with Common Sense Education (CSE) to expand the District's digital citizenship efforts during Digital Citizenship Week (DCW) through high-profile, instructionally-focused events (Monterosa, 2015). Student led showcase events have been held at the following schools:

- March 2014   – Western Avenue Elementary School
- October 2014 – Valley Academy of Arts and Sciences
- October 2015 – Maya Angelou High School
- October 2016 – Griffin Elementary School
- October 2017 – Frost Middle School

The District held its first middle school DCW event in October 2017. For DCW 2017, ITI supported 1,282 Frost Middle School students by holding an engaging Jeopardy-like, school-wide competition. Feedback elicited from students demonstrated the instructional utility of a DCW Showcase event:

> ITI remains the coordinating department responsible for creating awareness of digital citizenship District-wide since digital citizenship is critical to all learners – students, families, and school leaders.

I understand the importance of digital citizenship.
1,282 responses

Rating	Responses
1	19 (1.5%)
2	29 (2.3%)
3	83 (6.5%)
4	193 (15.1%)
5	958 (74.7%)

In 2017-2018, ITI expanded the District's digital citizenship model to encompass the ISTE Standards for Students, which positions digital citizenship as an empowering practice; where school leaders discuss practicing empathy online, leaving a digital footprint that is authentic to what students care about and who they are; and collaborating online to in the powerful, relevant ways learners can in today's global world. ITI remains the coordinating department responsible for creating awareness of digital citizenship District-wide since digital citizenship is critical to all learners – students, families, and school leaders.

COMPUTER SCIENCE (CS) EDUCATION

The District is committed to providing computer science education for all students by 2025, ensuring every student:

- Receives 20 hours of computer science instruction each year in Preschool through grade 5.
- Completes at least one rigorous and relevant computer science course in grades 6 through 8.
- Has access to a computer science pathway in grades 9 through 12.

LAUSD | INSTRUCTIONAL TECHNOLOGY INITIATIVE
COMPUTER SCIENCE EDUCATION

To achieve these goals, the District hired a dedicated Computer Science Education Coordinator in 2017 to support District-wide efforts across all grade levels. ITI facilitated partnerships with Code.org and University of California Los Angeles (UCLA) to explore new curriculum and instruction and to support the professional learning of all learners. The adaption and implementation of rigorous and relevant courses across multiple campuses include Advanced Placement (AP) Computer Science Principles (APSCP), Exploring Computer Science (ECS), and Computer Science Discoveries, which are founded on the K-12 Framework, the ISTE Standards, along with research and practice conducted by UCLA and Code.org.

During the 2016-2017 school year, school leaders advocated to bring computer science education to their campuses to meet the 21st-century liter acy needs of their students. Currently, 62.3% of high schools offer at least one computer science course (ECS, Computer Programming, Computer Science, Advanced Placement Computer Science A, or Advanced Placement Computer Science Principles).

> "
> *Having seen the effective, rigorous implementation of technology at other schools, I wanted to replicate this at our school. So, I decided to attend the ITI cohort PD along with staff, and we were able to learn about personalized learning and network with other school leaders interested in empowering students through technology too.*
>
> *Debra McIntyre-Sciarrino*
> *Principal*
> *Christopher Columbus Middle School*
> "
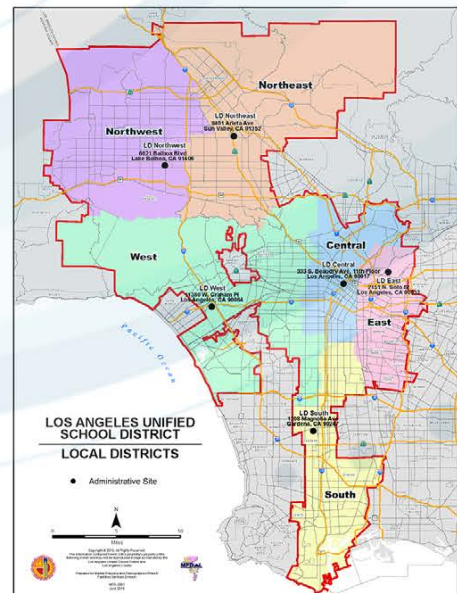
Local District	Middle School	High School
CENTRAL	• 10% of LD Central middle schools offer a CS course. • Total LD Central 7th - 8th grade students enrolled in CS: 118 students.	• 65% of LD Central high schools offered at least one CS course. • Total LD Central 9th -12th grade students enrolled in CS: 1,273 students.
EAST	• 20% of LD East middle schools offer a CS course. • Total LD East 7th - 8th students enrolled in CS: 284 students with only 2 schools offering a CS course.	• 75% of LD East high schools offered at least one CS course. • Total LD East 9th - 12th grade students enrolled in CS: 2,133 students.
NORTH EAST	• 13% of LD NE middle schools offer a CS course. • Total LD NE 7th - 8th students enrolled in CS: 284 students with only 2 schools offering a CS course.	• 63% of LD NE high schools offered at least one CS course. • Total LD NE 9th -12th grade students enrolled in CS: 937 students.
NORTH WEST	• 12% of LD NW middle schools offer a CS course. • Total LD NW 7th - 8th students enrolled in CS: 101 students with only 2 schools offering a CS course.	• 47% of LD NW high schools offered at least one CS course. • Total LD NW 9th - 12th grade students enrolled in CS: 421 students.
SOUTH	• 6% of LD South middle schools offer a CS course. • Total LD South 7th - 8th students enrolled in CS: 28 students with only 1 schools offering a CS course.	• 56% of LD South high schools offered at least one CS course. • Total LD South 9th – 12th grade students enrolled in CS: 793 students.
WEST	• 14% of LD West middle schools offer a CS course. • Total LD West 7th -8th students enrolled in CS: 391 students with only 3 schools offering a CS course.	• 67% of LD West high schools offered at least one CS course. • Total LD West 9th -12th grade students enrolled in CS: 860.

> *Expanding Computer Science education in California will increase students' knowledge, engagement in civic life and success in their careers. It will also ensure we have a diverse workforce that can support long-term economic growth and prosperity for all Californians.*
>
> *Computer Science for California*

In 2017-2018, Code.org released Computer Science Discoveries, a rigorous and relevant open source course that connects concepts from the K-5 Code.org Computer Science Fundamentals course to the high school Advanced Placement Computer Science Principles course. The District offers Computer Science Discoveries (CS Discoveries) as an introductory year-long computer science course in grades 7th through 8th. ITI is currently working on designing an articulation and progression from elementary to high school computer science concepts. The curriculum emphasizes problem-solving, creation, and collaboration, while introducing learners to the many ways computer science impacts their lives. This course carefully connects all of the five identified Computer Science Teacher Association (CSTA) standards and is designed to give students access to computer science content and computational thinking practices.

Computer science as a literacy is currently being integrated into several schools across the District to support the cultivation of computational thinking skills for all learners.

> *Strategy, tactics, sustainability, analytics, design, and experience -- these are the six stages of the digital transition change continuum in education.*
>
> *LeiLani Cauthen*
> *CEO*
> *The Learning Counsel*

COMMUNICATION EFFORTS

For stakeholders who want to stay abreast of District instructional technology efforts as well as maintain a pulse on current digital learning trends, ITI curates and publishes a monthly, public newsletter that highlights ways to engage in interdisciplinary instructional technology practices. The newsletter also serves as an outlet to highlight ongoing ITI partnership work such as with ISTE, Common Sense Education, and Code.org. Newsletter subscriptions continue to increase as ITI continues to expand efforts across the District:

# of ITI Newsletter Subscribers

2,500	
2,000	▇ (green, ~1,975)
1,500	▇ (blue, ~1,500)
1,000	
500	
0	July 2017 February 2018
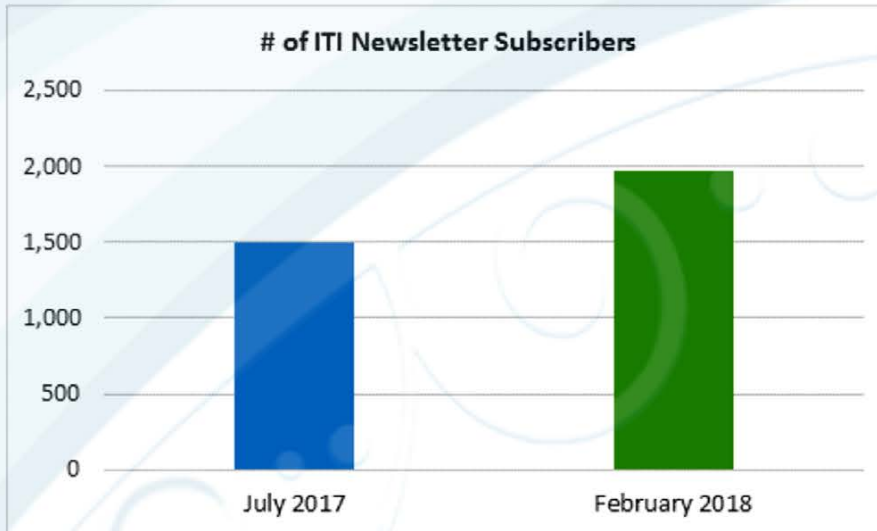
Through the ITI Newsletter, school leaders from across the District are showcased to document the many ways L.A. Unified educators are engaging in 21st century learning. ITI also leverages social media to stay connected with stakeholders and the broader educator community dedicated to promising practices in instructional technology. Additionally, ITI collaborates with the Office of Communications to ensure ITI news and efforts are shared through District channels such as the Instructional Update, LAUSD Daily, and official District social media avenues. These efforts are one of many communication pathways ITI leverages to increase awareness around effective pedagogy with technology.
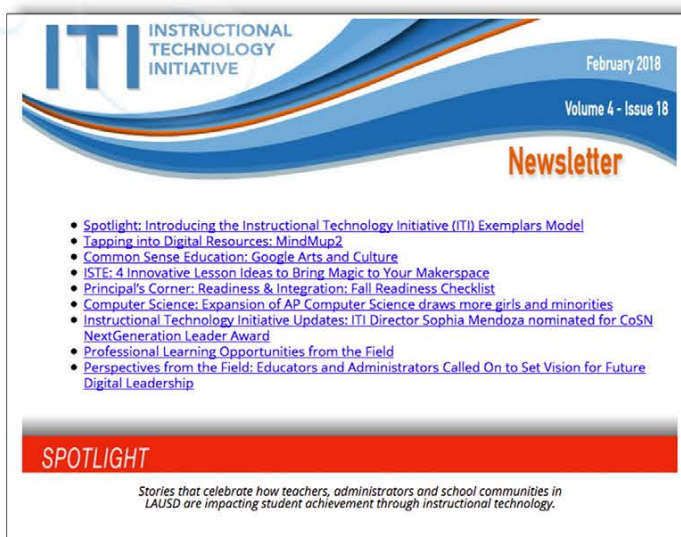
> "*Leadership and school culture create the foundation of schools that are future ready. As such, district leadership provides a vital pillar for transformation.*
>
> *Future Ready Schools*"

ITI INSTRUCTIONAL TECHNOLOGY INITIATIVE

February 2018
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Newsletter

- Spotlight: Introducing the Instructional Technology Initiative (ITI) Exemplars Model
- Tapping into Digital Resources: MindMup2
- Common Sense Education: Google Arts and Culture
- ISTE: 4 Innovative Lesson Ideas to Bring Magic to Your Makerspace
- Principal's Corner: Readiness & Integration: Fall Readiness Checklist
- Computer Science: Expansion of AP Computer Science draws more girls and minorities
- Instructional Technology Initiative Updates: ITI Director Sophia Mendoza nominated for CoSN NextGeneration Leader Award
- Professional Learning Opportunities from the Field
- Perspectives from the Field: Educators and Administrators Called On to Set Vision for Future Digital Leadership

SPOTLIGHT

Stories that celebrate how teachers, administrators and school communities in LAUSD are impacting student achievement through instructional technology.

PARTNERSHIPS, POLICIES & PRACTICES FOR PERSONALIZED LEARNING

Addressing 2016 ITI Task Force Recommendations

Recommendation 3	Need 2	Need 6
Support personalized learning initiatives District-wide.	Establish a baseline minimum that every learner has access to at least one device that connects to the internet.	Implement a process for annual review and update of related policies that support the instructional vision of personalized learning.

> **Partnerships are a necessary program effort for districts across the nation.**

The Office of the California State Department of Education (Torlakson, 2014) recommends school districts provide a 1:1 learning environment where the capacity and opportunity for teachers to offer personalized learning for each student is magnified. While personalized learning practices remain possible absent of technology, research shows that the effective integration of adaptive digital tools and resources on a 1:1 scale can increase personalized learning opportunities (Greaves et al., 2003; NETP, 2017). Currently, the District's average student-to-device ratio is 2:1.

Partnerships are critical to ITI's role as a District-wide resource (CETF, 2017; NETP, 2017; Torlakson, 2014). As a District-wide resource with a finite budget to support all learners, ITI leverages key partnerships, supports critical policy updates and developments, and engages in capacity-building of staff to infuse ITI's District-wide efforts with the latest instructional trends and support for personalized learning. Partnering with outside organizations is a necessary program effort for districts across the nation according to Digital School Districts Survey results:

Survey Question: Our district collaborates with a regional education entity such as a county office of education, a local education area entity, or a cooperative education services entity in the following ways: (Select all that apply)

Participating in professional development activities.	91%
Through a cooperative purchasing program for goods or services.	66%
Sharing digital resources or software licenses.	65%
Joint strategic planning for digital content or curriculum.	59%
Developing digital content for classroom use.	57%
Sharing specialized technology and resources or specialized technology staff.	55%
Other	13%
No regional education entities exist in our area.	5%
None of the above	1%

Source: Center for Digital Education

ITI Partnerships

Partner	Supports
California Emerging Technology	• Provides resources and support to select middle schools toward bridging the digital divide.
Center for Digital Education	• Serves as thought partner on strategic initiatives and provides professional development opportunities focused on promising instructional technology practices.
Code.org	• Provides guidance and support in expanding computer science education courses and professional learning opportunities District-wide.
Common Sense Media	• Provides resources and support in developing and designing high-quality digital citizenship and digital literacy programs that inform District-wide policy and program efforts.
Google	• Provides training for Google Certification Level 1 and Level 2 to support L.A. Unified educators in leveraging the Google Suite for Education in effective ways.
International Society for Technology in Education (ISTE)	• Serves as thought partner in exploring a variety of instructional strategies and supports as the District works toward implementing the ISTE Standards across all grade levels.
The Learning Counsel	• Provides professional development opportunities focused on promising instructional technology practices.
University of California, Los Angeles	• Serves as research-practice partnership to expand computer science education offers in equitable and sustainable ways across the District.
University of Southern California School of Cinematic Arts	• Provides guidance and support in developing a media-rich, dynamic Scalar book that serves as an interactive platform to showcase exemplary promising practices across the District.

> "All the technology in the world won't make a difference if educators don't know how to leverage it for deeper learning.
>
> *ISTE Essential Conditions*"

ITI approaches all stakeholders, including District staff, as learners. Therefore, ITI supports the capacity-building and training of staff to ensure all ITI efforts are informed by up-to-date practices that benefit all LAUSD learners. For example, ITI staff has been trained and/or certified in Prosci Change Management, Google for Education, Grantsmanship writing, and digital citizenship by Common Sense Education. ITI also remains involved in the updating and/or developing of policies to support the District's progress toward a personalized learning environment that effectively leverages technology.

When ITI provides policy support, current trends and the latest research focused on instructional PK-12 practices are used to inform policy development (Ahn, Bivona, & DiScala, 2011; CoSN, 2013; Culp, Honey, & Mandinach, 2003). For example, the Social Media Policy for Students was developed to support the inclusion of digital citizenship across the curriculum leveraging research by Ito and colleagues (2009) and Boyd (2014). The following instructional technology-focused policies have been reviewed and/or revised annually by ITI:

- Social Media Policy for Students
- Social Media Policy for Employees
- Responsible Use Policy
- UDIPP Reference Guide

> **ITI supports the capacity-building and training of staff to ensure all ITI efforts are informed by up-to-date practices that benefit all LAUSD learners.**

**LOS ANGELES UNIFIED SCHOOL DISTRICT
POLICY BULLETIN**

TITLE:	Responsible Use Policy (RUP) For District Computer and Network Systems	ROUTING All Employees All Locations
NUMBER:	BUL- 999.11	
ISSUER:	Shahryar Khazei, Chief Information Officer Information Technology Division	
DATE:	August 20, 2015	
POLICY:	Teachers, students, administrators and other District and school personnel shall ensure District data systems are used in a responsible, efficient, ethical, and legal manner, and that such use is in support of the District's business and education objectives.	

**LOS ANGELES UNIFIED SCHOOL DISTRICT
POLICY BULLETIN**

TITLE:	Social Media Policy for Students	ROUTING All Employees All Locations
NUMBER:	BUL-6399.1	
ISSUER:	Frances Gipson, Ph.D. Chief Academic Officer Division of Instruction Sophia Mendoza, Director Instructional Technology Initiative	
DATE:	August 10, 2017	
POLICY:	The Los Angeles Unified School District encourages positive relationships between students, employees and associated persons. There is, however, a distinction between being supportive of students and the real or perceived breach of confidentiality or misconduct, especially online.	

ITI will continue to provide knowledge and insight gleaned from partnerships to inform the policies that shape the District's 21st century learning environments.

DISTRICT-APPROVED, LEARNER-CENTERED DIGITAL TOOLS & RESOURCES

Addressing 2016 ITI Task Force Recommendations

Recommendation 4
Integrate a learning management system (LMS) in support of a learner-centered learning environment.

Need 3
Ensure interoperability between a District-wide Learning Management System (LMS) and the District systems.

Following the ITI Task Force Recommendations publication, ITI developed the Practitioner Schools (PS) Model to reimagine and examine how schools can leverage digital tools in creating rigorous and personalized learning environments for all learners. Practitioner School (PS) 1.0 focused on the integration and use of a learning management system (LMS). PS 1.0 schools explored the utility of an LMS, creating courses and exploring grading practices using an online gradebook. As school leaders across the District began to leverage the LMS at great length, many technical inquiries surfaced. Thus, a new department was developed called Personalized Learning Systems to bridge the highly technical needs of creating, sustaining, and monitoring the use of the LMS across all stakeholders—students, families, teachers, and administrators. Additionally, the District recognized the need to establish digital content standards to inform interoperability between the District's selected LMS and its information technology systems.

In collaboration with the Procurement Services Division, ITI supported the establishment of the Unified Digital Instructional Procurement Plan (UDIPP), which is a plan that guides vendors in ensuring their various digital instructional software, licenses, or online subscriptions meet District requirements. There are 4 main requirement areas: Educational; Single Sign-On (SSO) and Security Assertion Mark-Up Language (SAML); Student Data Privacy; and Learning Management System Compatibility.

> "The UDIPP is a plan that guides vendors in ensuring their various digital instructional software, licenses, or online subscriptions meet District requirements."

- **Education Requirements:** The District requires vendors to provide detailed explanations of, at minimum, certain outlined topics in order for the Division of Instruction to ascertain the quality and appropriateness of the Vendor materials for District students.

- **Single Sign-On (SSO) and Security Assertion Mark-Up Language (SAML):** It is the intent of the District to facilitate the log on process to all external services, including online learning tools and accounts, learning management systems and the like, using Single Sign-On (SSO). The District requires all proposers to align their product(s) to the stated requirements in submitting for review of proposals. In addition, proposers must comply with all federal, state and District rules and policies regarding security of data transferred for the purposes of authorization.

- **Learning Management System Compatibility:** LAUSD is in the process of implementing a District-wide Learning Management System (LMS) in order to provide digital curricula in a standard, unified format container that is accessible to parents, teachers, students, and administrators. Publishers must enable the integration of curricula and data using the District LMS by providing content that adheres to standards published by the Instructional Management System (IMS) Global Learning Consortium. These standards enable compatibility and allow publishers to integrate content into a learning management system as well as transfer content packages from their system into an LMS. In addition to adhering to

interoperability standards, publishers must provide all course content, including but not limited to textbook materials, assessments, activities, lesson plans, etc., in a manner that will allow the District, or a District-contracted provider, to upload materials directly into the LMS.

- **Student Data Privacy Requirements:** The purpose of the Data Use Agreement ("Agreement") is to allow for the District to provide a Contractor with personally identifiable information ("PII") from student education records ("student data") without consent so that the Contractor may perform the following institutional service or function for which the District would otherwise use employees: This Agreement is meant to insure that a Contractor adheres to the requirements concerning the use of student information protected under the Family Educational Rights and Privacy Act ("FERPA"), 20 U.S.C. §1232g, 34 Code of Federal Regulations Part 99, and California Education Code sections 49060-49085.

With UDIPP processes guiding technical needs for digital content, ITI remains focused on the instructional practices that call for LMS integration, such as supporting school leaders in designing LMS assessments according to the lesson design; leveraging all aspects of the tool to inform professional practice and learning; or understanding how to interpret assessment data to engage in personalized learning practices.

> "Given the potential for technology to provide equality in access to information, services and participation in the democracy coupled with its power to transform lives for a better future -- digital access has become a 21st Century Civil Right.
>
> *Sunne Wright McPeak*
> *President & CEO*
> *California Emerging Technology Fund*

CROSS-STITCHING & CAPACITY-BUILDING EFFORTS

Addressing 2016 ITI Task Force Recommendations

Recommendation 5
Design and deliver learner-driven professional learning opportunities for school leaders, teachers, students, parents, board members and community and business leaders.

Need 7
Establish pathways for collaborative partnerships between the Division of Instruction and key departments within the District.

AIR report findings from 2014 had also recommended that District teams make a concerted effort to work together more efficiently and effectively. ITI has engaged in cross-stitching and collaborating locally with central office teams, schools throughout the District, and nationally with external partners to address District-needs. The following table outlines the various ways ITI has engaged in cross-stitching and capacity-building:

Collaborative Efforts	Examples
Serve as thought partner within the Division of Instruction	• Supported MMED for an internet-access project in providing professional learning sessions and facilitating instructional technology conversations with school leaders. • Provided instructional technology framework expertise to inform digital content adoption for history, science, mathematics, social studies, and secondary and elementary education. • Collaborated with STEM coordinators to develop a District plan for STE(A)M.
Visit with foreign delegations	• Met with delegations from South Korea and China to share ITI Task Force Recommendations.
Share learnings at local and national convenings of instructional technology leaders conferences and workshops	• Led multiple sessions at ISTE Conferences in Denver, CO and San Antonio, TX to exchange ideas and promising practices. • Collaboratively presented learnings at the Consortium for School Networking (CoSN) with ITD partners. • Presented to local leaders at a Learning Counsel workshop regarding ITI efforts. • Participated in a Future-Ready Schools Workshop alongside other Southern California school districts focused on personalized learning.
Network with neighboring districts	• Hosted Claremont Unified's Director of Instructional Technology as an ITI Task Force Guest Speaker to discuss the challenges of a BYOD program. • Ongoing collaboration with instructional technology leaders from the New York Department of Education to discuss similar issues and challenges faced as large district.

> " One of the most important aspects of technology in education is its ability to level the field of opportunity for students.
>
> *John King*
> *Former U.S. Secretary of Education* "

Pursuing an instructional practice leveraging digital tools and resources is a collaborative effort, especially in a district the size of LAUSD, which is why ITI continues to seek and establish interdisciplinary collaborations, partnerships, and opportunities to share learnings and learn from others.

MEANINGFUL & COMPLEX LEARNER-CENTERED MEASURES

Addressing 2016 ITI Task Force Recommendations

Recommendation 6
Develop and adopt District-wide tools to measure lesson effectiveness.

In being the first district in the nation to formally adopt the refreshed ISTE Standards for Students in June 2016, the adoption and integration of the standards has greatly impacted ITI's work. Given the size of the District, ITI continues to create awareness and build the capacity of school leaders, so they can be stewards of the ISTE Standards as well. A critical feature of the ITI Task Force Recommendations was that it represented the collective voice of stakeholders from across the District, and ITI was committed to collecting and curating L.A. Unified examples that would bring the Recommendations to life. Thus, ITI has been working to capture exemplary practices that demonstrate the ISTE Standards for Students in action, resulting in a dynamic, interactive resource called the ITI Exemplars Model for the world to see the great instructional efforts occurring across the District.
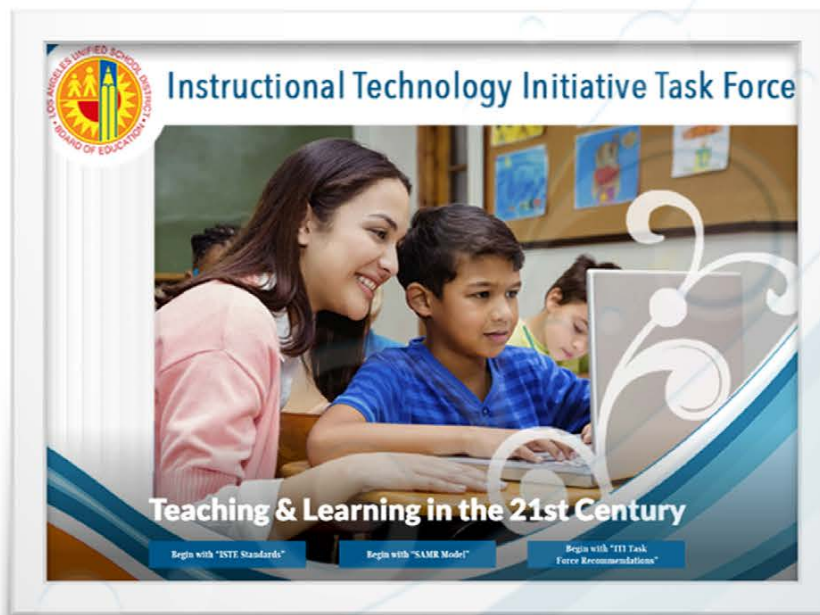
The ITI Exemplars Model is an iterative, dynamic curation of instructional examples from across the District featuring school leaders engaging in personalized learning. Through this model, educators can explore instructional practices that demonstrate key frameworks such as the ISTE Standards for Students, the Substitution/Augmentation/Modification/Redefinition (SAMR) Model, and the ITI Task Force Recommendations.

More information is available at the following link:
https://achieve.lausd.net/Page/14446

As a District-wide resource, ITI is focused on creating system-level supports that facilitate the effective implementation of technology for teaching and learning. To do so, ITI's many efforts are founded on a deliberate synthesis of rigorous instructional frameworks and forward-thinking standards, such as the ISTE Essential Conditions.

The six program components are an evolution from the original six recommendations made in the TFR. This latest iteration is also aligned to the ISTE Essential Conditions to ensure ITI's efforts continue to be grounded in the District-adopted ISTE Standards and resources. The following table summarizes how ITI efforts continue to work toward meeting each ISTE Essential Condition:

ISTE Essential Conditions	ITI Program Components					
	Continuum of Support Models	Interdisciplinary Content	Partnerships & Policies	District-Approved Tools	Cross-Stitching	Learner-Centered Measures
Shared Vision: Proactive leadership develops a shared vision for educational technology among all education stakeholders, including teachers and support staff, school and district administrators, teacher educators, students, parents, and the community.	X		X			
Technical Support: Educators and students have access to reliable assistance for maintaining, renewing and using technology and digital learning resources.				X	X	
Empowered Leaders: Stakeholders at every level are empowered to be leaders in effecting change.	X					
Curriculum Framework: Content standards and related digital curriculum resources align with and support digital age learning and work.	X	X				X
Implementation Planning: All stakeholders follow a systematic plan aligned with a shared vision for school effectiveness and student learning through the infusion of information and communication technology and digital learning resources.	X					X
Student-Centered Learning: Planning, teaching, and assessment all center on the needs and abilities of students.	X	X				X
Consistent and Adequate Funding: Ongoing funding supports technology infrastructure, personnel, digital resources and staff development.			X	X		
Assessment and Evaluation: Teaching, learning, leadership and the use of information and communication technology and digital resources are continually assessed and evaluated.		X				X
Equitable Access: All students, teachers, staff and school leaders have robust and reliable connectivity and access to current and emerging technology and digital resources.				X	X	
Engaged Communities: Leaders and educators develop and maintain partnerships and collaboration within the community to support and fund the use of information and communication technology and digital learning resources.			X			
Skilled Personnel: Educators, support staff and other leaders are skilled in the selection and effective use of appropriate digital learning resources.	X		X		X	
Support Policies: Policies, financial plans, accountability measures, and incentive structures support the use of digital tools and resources for both learning and district/school operations.			X	X	X	
Ongoing Professional Learning: Educators have ongoing access to technology-related professional learning plans and opportunities as well as dedicated time to practice and share ideas.	X	X				
Supportive External Context: Policies and initiatives at the national, regional, and local levels support schools and teachers preparation programs in the effective implementation of technology for achieving curriculum and learning technology standards.		X			X	

Central to meeting the ISTE Essential Conditions are the three themes running through ITI's efforts: equity, authenticity, and participation. Equity is reflected in ITI's continuum of support models to ensure all learners are afforded an opportunity to receive the training and support enabling their success. Authenticity is threaded throughout ITI's computer science education efforts, which mirror the ubiquity of technology in the lives of all learners. Lastly, participation remains a key element of ITI's work, especially as it relates to digital citizenship and the proactive and productive engagement of all learners online.

As ITI strives to continue to fully meet the ISTE Essential Conditions, efforts will better position the District to provide the engaging and rigorous 21st century learning environment today's learners need to thrive in today's world.

> **All the technology in the world won't make a difference if educators don't know how to leverage it for deeper learning.**
>
> *ISTE Essential Conditions*

FUNDING

ITI operates on a finite budget, which requires the leveraging of partnerships and existing funding to provide the support all schools need. As districts across the nation continue to pioneer efforts that address 1:1 learning environments, the District remains committed to designing and developing programs that are sustainable and manageable across the spectrum of stakeholders involved, such as district staff, local district leadership, principals, teachers, school support staff, and students. To do so, ITI leverages a variety of funding options and strategies to support ITI programs:

> *It's imperative that classroom design is driven by the desire to create personal and authentic learning experiences for students. It's about moving teaching practices from stand, deliver and regurgitate to practices that are engaging, relevant and personal.*
>
> *Tom Murray*
> *Director of Innovation Future Ready Schools*

Funding Strategy	Supported Efforts
Education Technology Grant	In September 2015, former Superintendent Cortines proposed to the Board that the bond portion of the Apple/Pearson settlements be invested in a matching grant program that would expand a schools' access to instructional technology. The Educational Technology Grant program was developed through a collaborative effort that included leadership from each Local District, the Division of Instruction, the Information Technology Division, and the Superintendent's office. A total of 242 grants were awarded, supporting schools in launching their instructional technology efforts. Awarded schools were invited to attend ITI professional learning sessions to prepare for the use of digital tools and resources in the classroom.
Partnerships	The several no-cost partnerships established by ITI have contributed to ITI's ability to reach many schools across the District. For example, ITI's partnership with Google encompasses professional development that is valued at over $40,000, allowing for L.A. Unified educators to receive specialized training at no cost. Bridging the digital divide across several middle schools by providing professional development and devices to students has been the focus of ITI's partnership with CETF.
Educator Effectiveness Grant (EEG)	This grant, which was received in 2016, provides funding to provide additional computer science education professional learning sessions.
Title II Funds	Title II funds support ITI's professional development offerings focused on computer science.

Targeted Student Population (TSP) Funds	This funding allocation, totaling $2.2 million, supports efforts that directly engages English Learners, low-income youth, and foster youth. The expansion of computer science education course offerings will be made possible through these funds as they are targeted toward creating equitable learning opportunities for students who have lacked access to such offerings before.
Cross-stitching Efforts	ITI collaborated with ITD to provide the instructional supports needed for internet connectivity at home, such as digital citizenship resources and guidance.
Teacher Incentive Fund (TIF)	This grant provided funding in 2015-2016 to launch ITI's 3-day cohort professional learning model and to pilot the first iteration of the ISTE Standards for Student professional learning sessions.

Additional funding options to sustain instructional technology programs include pursuing another bond measure or a parcel tax, exploring Every Student Succeeds Act (ESSA) funding opportunities (CED, 2017). Bond measure efforts could be modeled according to the Ed Tech Grant program, where schools would be required to develop an instructional technology plan, commit to attending professional development sessions, and allot school site funds to match bond funds. The District has adopted digital content across all content areas, which is aligned to district efforts state-wide, such as in San Diego Unified and Riverside Unified, who have used textbook budget funds to invest solely in digital content. Given the size of the District and ITI's role in supporting all schools, ITI remains committed to exploring existing funding and leveraging key partnerships to sustain its programs.

"

I believe that the foundation of teaching and learning with technology should always be interconnected to content and pedagogy. I think it's imperative to be well informed on research that connects theory to practice.

Mila Thomas-Fuller
President
ISTE Board of Directors

"

NEXT STEPS: EMPOWERED LEARNER

Districts across the nation have begun shifting practices to create learning environments that meet the needs of today's digitally connected world. CCTP resulted in many lessons learned, which have been translated into revised policies, redesigned programs, and reimagined support models District-wide. A key lesson learned was to lead with instruction rather than the tool, because the tool will not inherently impact learning.

To ensure LAUSD continues to lead with instruction, the Empowered Learner program is the next iteration of ITI's efforts in collaboration with ITD to provide an exemplary model of personalized learning within a 21st century learning environment. An initial cohort of 125 schools have been identified to explore and refine the nuances of the Empowered Learner effort.

The Empowered Learner program is founded on the ISTE Standards for Students and ISTE Essential Conditions, which calls for empowered leaders and catalysts. Key program aspects of Empowered Learner include:

- **Instructional Readiness:** Participating schools will need to demonstrate instructional readiness, such as aligning budget and resources to support such an implementation, creating a School Instructional Technology Plan, and attending professional learning sessions.

- **Collaborative Leadership:** Local Districts will be engaged throughout the process in addition to participating school sites and their instructional leadership teams. For example, Local District Superintendents will be involved in approving instructional technology plans developed by their schools.

- **Digital Citizenship:** Participating schools will engage in the Common Sense Education certification process to ensure all learners experience conversations regarding productive, participatory online engagement that facilitates college and career success.

The District has made a great deal of progress in terms of instruction and infrastructure needs to create a 21st century learning environment for all learners. However, we remain focused on the work ahead, ensuring LAUSD cultivates empowered learners and leaders.

> *It is important to remember that educational software, like textbooks, is only one tool in the learning process. Neither can be a substitute for well-trained teachers, leadership, and parental involvement.*
>
> *Keith Krueger*
> *CEO*
> *Consortium for School Networking (CoSN)*

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> " We owe it to all students to fully engage them in their learning process in ways that are meaningful to them and relevant.
>
> *Ann McMullan*
> *Education Advocate*
> "

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> "Educators should be mindful of whether they are measuring what is easy to measure or what is most valuable to measure.
>
> National Education Technology Plan 2017"

> *"The Empowered Learner program is founded on the ISTE Standards for Students and ISTE Essential Conditions, which calls for empowered leaders and catalysts."*