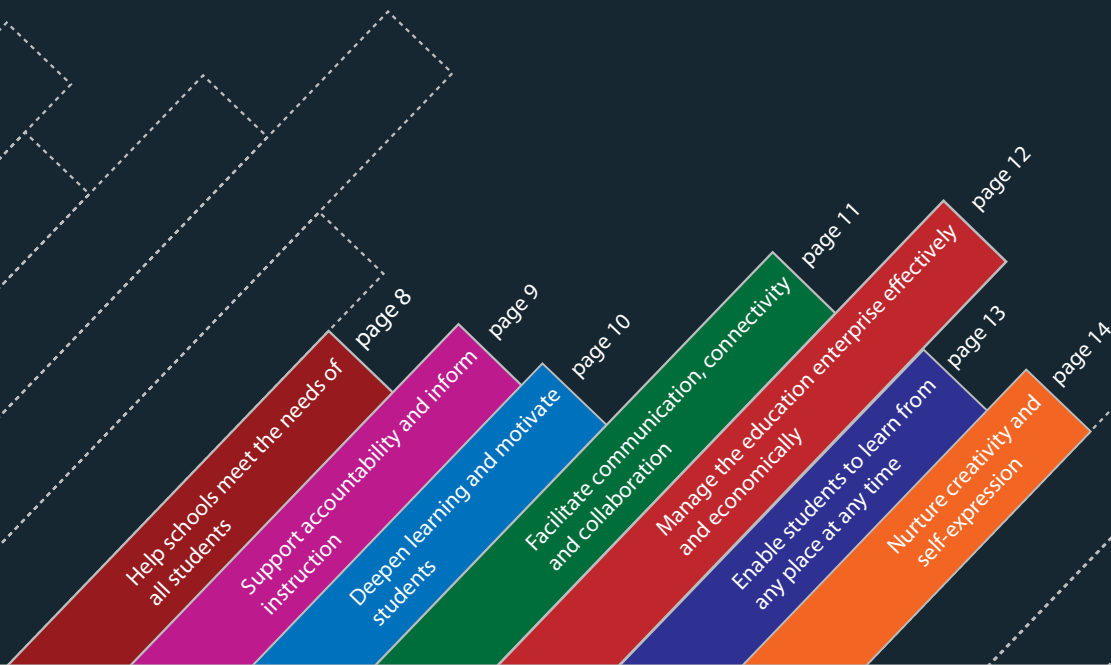




a vision for K-20 education



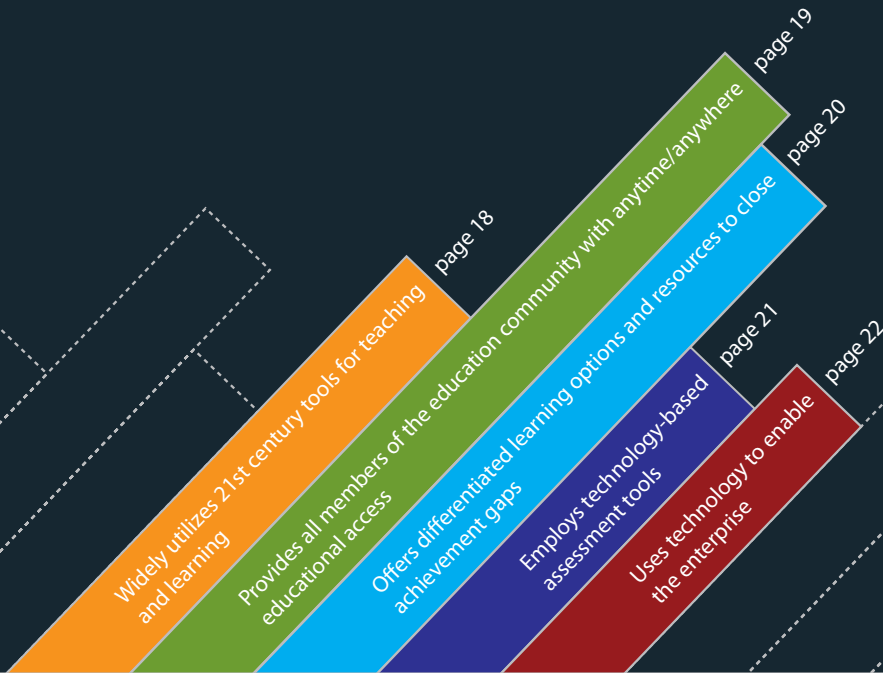
Software & Information Industry Association (SIIA)
member companies are the providers of the
educational content, services and software
necessary to move US education into the 21st century.



The Means for Change

Our vision is based on the experience that technology: -----

As the voice of the educational technology industry, we take a leadership role in developing this vision for K-20 education—a vision that utilizes modern technologies to create a teaching and learning environment capable of competing globally and leading the world in innovation.



The Measures of Progress

- Allows us to teach and learn in ways that were not possible before
- Enables us to be more efficient in teaching and learning
- Is essential for life-long learning



By the end of the decade, we believe that every K-20 institution can—and should—have an instructional and institutional framework that embraces technology and e-learning in order to:

- Increase student engagement and achievement
- Provide equity and access to new learning opportunities
- Document and track student performance
- Empower collaborative learning communities
- Maximize teaching and administrative effectiveness
- Build student proficiencies in 21st century skills

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This SIIA vision calls for a coalition of stakeholders, including educators, business executives, policymakers, and academic leaders to recognize this mandate and to work together to realize this opportunity.

TECHNOLOGY > EDUCATION > AMERICA'S FUTURE

To better prepare our nation's students to compete globally, we must combine proven, well-implemented and well-supported technologies with solid educational approaches. As a result, we will sharpen the innovative edge of our individuals and institutions, and increase the opportunity for each person to fulfill their promise through education.



Background

Education and innovation have long been the hallmark of America's success, and keys to our democracy, economic development and way of life. With help from excellent education institutions and an enterprising spirit, the United States has led the world in innovation and technology. Today, that lead is diminishing, as our schools work with limited resources to produce knowledge-based workers who have the skills to compete in the 21st century global workplace.

While our educational system has evolved in response to a myriad of changing circumstances and challenges, we stand at a new crossroads. Digital information and communication technologies have been embraced by businesses and consumers worldwide. They have swept us into a global economy, in which workers and entrepreneurs from all nations compete for jobs, resources, ideas and capital.

Young people have welcomed these technologies into their lives, their homes and their backpacks. Students travel from place to place, carrying an array of digital devices from cell phones to laptop computers to gaming devices and more. And yet, these 21st century tools, which are largely responsible for the "flattening" of the world in which we live, and which are integral to our society and our students' daily lives, have yet to be fully leveraged by our nation's K-20 schools to improve learning.

Key to rebuilding America's competitive edge globally—and renewing our "can-do" spirit nationally—is the revitalization of our educational resources, practices and schools. To remain both relevant and effective in a century marked by rapid innovation and global competition, the education community must understand how learning can be improved through the use of new technologies, and use the data gathered with help from these technologies, to guide educational decisions. Until now, the investment in technology has led to the discovery and development of "best practices," but these success stories have not yet led to large-scale systemic change.

The Means for Change

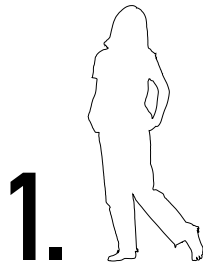


The evidence is strong that technology and e-learning are powerful tools for revitalizing education and providing today's students with opportunities that both reflect and prepare them for the world beyond the classroom. Pioneering schools have already pointed the way to what is possible when good education and good technology come together. From pre-school to graduate school, technology has repeatedly proven its power to connect and energize educators and learners and to improve learning outcomes.

We know that educational software, digital content, e-learning and related technologies:

- Help schools meet the needs of all students
- Support accountability and inform instruction
- Deepen learning and motivate students
- Facilitate communication, connectivity and collaboration
- Manage the education enterprise effectively and economically
- Enable students to learn from any place at any time
- Nurture creativity and self-expression





Help schools meet the needs of all students

Digital technology provides multiple approaches to learning, allowing educators to effectively address each student's individual learning style, abilities, pace and interests. Through embedded assessment and personalized instructional content, today's courseware helps educators understand and respond to the specific learning needs and styles of each student. Simulation and animation can be used to make complex concepts more visual. Robust support tools—including virtual mentors and tutors, portals with tailored entry points to information, adaptive and accessible technologies for students with disabilities, and digital assistants to help with everything from searching and sorting to voice recognition—help level the playing field and deliver key learning skills, making it possible for a wide range of students to succeed and thrive.

2.

Support accountability and inform instruction

Computer-based assessment not only helps address, enrich and measure individual student progress as it occurs, it also provides educators with valuable data for making instructional decisions and creating more effective learning organizations. In assembling their learning portfolios, students are building skills in effective data organization and presentation and are documenting their complete, robust educational journey and accomplishments. Portfolios can migrate with learners through their school years and beyond, and serve as an “education ID” that documents learning and achievement.

Technology is also the only means for helping integrate the pieces of the learning puzzle, creating new connections between isolated pockets of assessment and other student and school data over time. Technology helps pinpoint systemic strengths and weaknesses, creating a model for accountability and continual improvement in education.



3.



Deepen learning and motivate students

Compelling and broadly accessible digital content and tools—from virtual field trips that allow students to travel across the globe without leaving their desks, to interactive and adaptive courseware, to immersive, game-based multimedia simulations—fuel instruction and exploration. Such electronic learning resources make lessons visually interesting within exciting contexts to capture and hold student attention. In this way, they provide both the means and the motives for achievement, helping to ignite in students a life-long love of learning. Ultimately, this passion may be how technology best prepares American students to thrive in an increasingly competitive and fast-paced world, where change is the norm and flexibility, ability and desire to learn are the keys to success.

4.

Facilitate communication, connectivity and collaboration

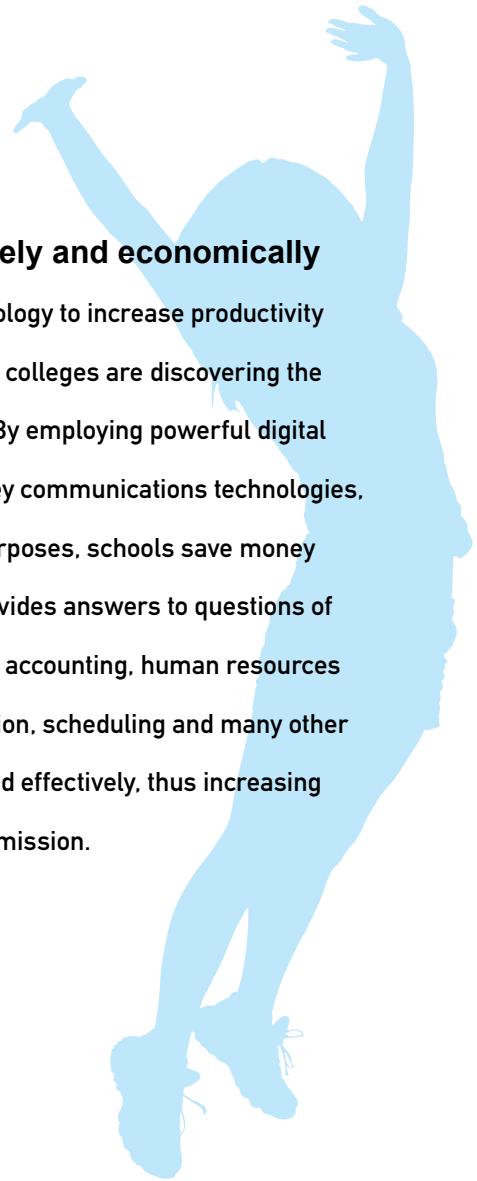
As members of “Generation M,” the multi-tasking, multimedia-fluent and continually-connected young people in today’s schools and colleges are already accustomed to rich digital multimedia resources, online collaborative spaces and other social interactions mediated by technology. Participation in a variety of virtual learning communities inspires students and teachers to discover, explore, guide and share—and to refine the collaborative skills so crucial to 21st century work environments. With 24/7 connectivity, it is possible for parents and other community members to access information and communicate with learners, instructors, and administrators at times convenient to all involved.



5.

Manage the education enterprise effectively and economically

Just as businesses have harnessed the power of technology to increase productivity and manage complex organizational tasks, schools and colleges are discovering the benefits of technology to run the education enterprise. By employing powerful digital tools for data analysis and management, investing in key communications technologies, and leveraging the digital infrastructure for multiple purposes, schools save money while achieving better results. Accessible data also provides answers to questions of accountability and progress. Procurement, finance and accounting, human resources and professional development, physical plant, registration, scheduling and many other institutional functions are conducted more efficiently and effectively, thus increasing focus and resources on the core teaching and learning mission.



6.

Enable students to learn from any place at any time

Advancements in technology provide high-speed, mobile Internet access on a growing number of campuses, and in more and more households and public spaces. As a result, learning and teaching are no longer constrained by the physical limits of space and time (including the scheduled class time). Postsecondary education has led the charge in providing ubiquitous access to its students, making it possible for faculty and students to interact, communicate and learn nearly anywhere, at any time. With this sort of connectivity, students of many different ages can enroll in virtual classes and degree programs and engage in lifelong learning experiences that enhance their personal and work commitments.



7.

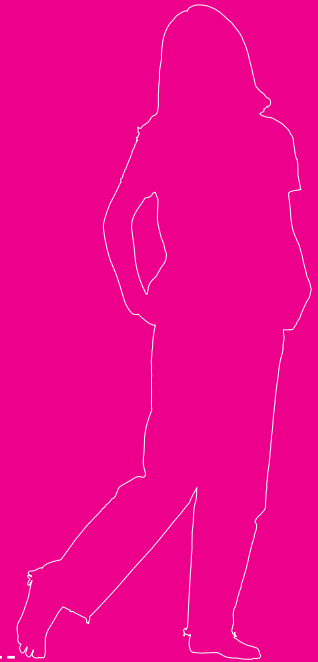
Nurture creativity and self-expression

Students of all ages are now creators of—and commentators on—digital content, not simply consumers of it. As they interact with peers around the world, students naturally come to see the value of critical thinking skills and the importance of being able to convey one's thoughts clearly, in an engaging and persuasive manner.

Moreover, multiple forms of expression—including writing, music, the spoken word, visual arts and a variety of other media—are equally valued on the Internet's digital stage.



The ability of a creator using modern technology to rapidly test new ideas without investing huge sums of time or money also enables the practical application of expansive thinking and innovative problem-solving—the very traits most valued in artistic and industrial pioneers.





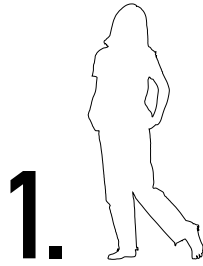
Measures of Progress

To achieve our vision for K-20 education, SIIA has laid out the following goals for itself and the education community to reach within 3-5 years.

By the end of the decade, we see a K-20 system that effectively and as a matter of common, second-nature practice:

- Widely utilizes 21st century tools for teaching and learning
- Provides all members of the education community with anytime/anywhere educational access
- Offers differentiated learning options and resources to close achievement gaps
- Employs technology-based assessment tools
- Uses technology to enable the enterprise





Widely utilizes 21st century tools for teaching and learning

Examples include:

- Educational content delivered more flexibly, through multiple formats, media and platforms
- Interactive, adaptive, multimedia courseware and simulations
- Data management and analysis systems for the educator and administrator
- Adaptive and diagnostic computer-based assessment tools
- Security tools to protect student privacy and safety
- High-speed broadband access to enable collaborative and distance learning, video-based communication and other multimedia-rich interactions

2.

Provides all members of the education community with anytime/anywhere educational access

Examples include:

- Education portals that provide teachers, students and community members with access to all types of applications, resources and collaboration tools
- Ubiquitous, reliable mobile devices and access points
- Virtual schools and online courses to ensure all students have high-quality courses and teachers, no matter their location or schedule
- Online professional development resources, courses and peer collaborative communities for K-20 educators
- Online student services





3.

Offers differentiated learning options and resources to close achievement gaps

Examples include:

- Individual learning programs and differentiated instruction for all students
- Online supplemental educational resources and tutoring, accessible to all students
- Courseware and learning management systems to drive instructor and computer-delivered instruction



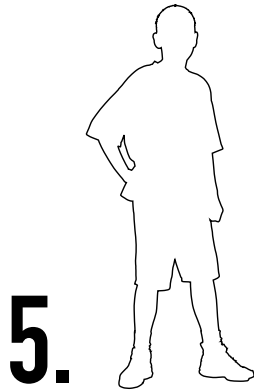
4.

Employs technology-based assessment tools

Examples include:

- Personal portfolios that travel with students from one year—and one geographic setting—to the next, to demonstrate a wide range of skills and knowledge
- Embedded, technology-based assessment that provides authentic, immediate measurement of student skills and knowledge, as well as suggestions for next steps
- Information systems that measure student, teacher, school and district performance, in order to enable individualized instruction, facilitate professional development and enable accountability and decision-making





Uses technology to enable the enterprise

Examples include:

- Access by educators to the level of technology resources, technical support and training common to other professionals
- Infrastructure, data management, communication and systems diagnostic tools critical to the success of any business enterprise
- Flexible use of resources, whereby technology is not supplemental but rather integrated into planning, budgeting, and practice

Our vision is that technology:

- Allows us to teach and learn in ways that were not possible before
- Enables us to be more efficient in teaching and learning
- Is essential for lifelong learning

This SIIA vision calls for a coalition of stakeholders, including educators, business executives, policymakers, and academic leaders to recognize this mandate and to work together to realize this opportunity.

To better prepare our nation's students to compete globally, we need to combine proven technologies with solid educational approaches. This will hone the innovative edge of our individuals and institutions, and increase the opportunity for all to fulfill the promise of education.



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