

# 21st Century Learning

A Stakeholders Guide to  
Instructional Technology and  
School Reform

Next -->

# 21st Century Skills



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As educators, our responsibility to prepare our students for the workplace has never been so important. With emerging technologies, it is essential that students have the requisite skills to function and thrive in their chosen careers. Digital-Age Literacy, Inventive Thinking, Effective Communication, and High Productivity are key components to academic achievement. Technology, when integrated effectively, can help meet these goals.

# What is Technology Integration?



Hardware



Software



The Internet

The Curriculum

**Next -->**

Technology integration is the use of technology resources -- computers, digital cameras, CD-ROMs, software applications, the Internet, etc. -- in the daily practices of a classroom and in the management of a school. It is the transparent use of these tools that demonstrates integration. It is when the use of technology is routine. Technology integration is when a child or a teacher doesn't stop to think that he or she is using a computer or researching via the Internet.

## Technology Integration Is...

- Access to primary source material
- Methods of collecting and recording data
- Opportunities for collaboration and expressing understanding
- Learning that is relevant and assessment that is authentic

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When effectively integrated into the curriculum, technology tools can extend learning in powerful ways. These tools, the Internet, and multimedia applications can provide students and teachers with:

- Access to up-to-date, primary source material
- Methods of collecting and recording data
- Ways to collaborate with students, teachers, and experts around the world
- Opportunities for expressing understanding via images, sound, and text
- Learning that is relevant and assessment that is authentic

# Effective Technology Integration



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*Effective integration of technology is achieved when students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally. The technology should become an integral part of how the classroom functions -- as accessible as all other classroom tools. --*  
National Educational Technology Standards for Students,  
International Society for Technology in Education

# Why Integrate Technology?

- Technology is the environment of our children.
- Technology is in their homes and around their neighborhoods.
- Technology is transparent to children.

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Children are like sponges. They absorb information more readily than adults. When a child is engaged in something he or she is interested in, like technology, their learning potential accelerates, critical thinking skills are stimulated, and concept connections are made. Technology is pervasive in their lives and children don't think about what it takes to make technology work. They just do it.

# Technology Integration Specialist

- Full time certified staff member
- Provides staff development
- Directs technology acquisition to support student achievement
- Mentor and guide to teachers and students

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Schools are placing computer hardware and software into classrooms, which leads to a demand for personnel to properly facilitate the integration of technology into the classroom curriculum. As a result, Technology Integration Specialists are a key component to effective and progressive school reform. They become global leaders in the schools, become involved with the evolution of curriculum, and become communication conduits between all levels of staff within a school district. They promote new ways of teaching, bring in more resources and create policies with regard to technology use.

# Who Benefits?

- Students
- Educators
- Parents
- Business
- Community



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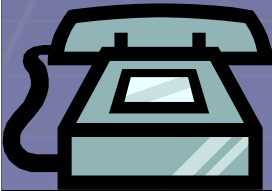
The benefactors of a well planned technology integration program are far-reaching. Students will better realize their learning potential. Educators will provide more efficient, targeted instruction. By engaging parents, business, and community in the planning and implementation of technology integration, stakeholders in the process will have more buy in to direct and support education programs and reforms.



# Innovation

“This 'telephone' has too many shortcomings to be seriously considered as a means of communication. The device is inherently of no value to us.”

-- Western Union internal memo, 1876



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The acceptance of change is a major requirement for technology integration. New technologies are always emerging. It demands that we continually keep up with these improvements. However, change is not always easy. The initial human reaction to change is resistance. Resistance makes for slow change, but change is inevitable.

# Curriculum Standards

- State Academic Standards
- National Educational Technology Standards
- Career Related Standards



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Instructional Technology resources and tools must be fully integrated and aligned with state academic standards, national technology standards and career related standards. Technology should be incorporated through data-driven decision-making where resources selected support measurable skill acquisition and increase student achievement.

# Opportunity

“We must open the doors of opportunity. But we must also equip our people to walk through those doors.”



-- Lyndon B. Johnson

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Technology can have a significant impact in the classroom. However, without appropriate professional development on effective methods of integration, the potential of technology can not appreciated.

# Student - Teacher Roles

- Student as learner
- Student as teacher
- Teacher as learner
- Teacher as mentor and guide



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Technology helps change and define student and teacher roles. It promotes project-based learning styles and it engages students in the learning process. Students acquire and use higher-order thinking, analysis, and problem solving skills and take responsibility for their learning outcomes. Teachers, as a result, become guides and facilitators. Technology lends itself as a multidimensional tool that will assist the process.

# Technology and Collaboration

- Active engagement
- Participation in groups
- Frequent interaction & feedback
- Connections to real-world experts



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Technology integration leads to project-based learning. With project-based learning, students work individually and in groups. They are constructors of knowledge. Children become collaborators building understanding with their teachers, peers, and external community.

# Let Technology Integration Begin!



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With the proper support from school administrators, parents, businesses, and community members, technology can become an integral part of school curriculum. It requires a commitment to change the way educators deliver instruction. By allocating resources for professional development as well as hardware and software, schools can and will see improvement in academic achievement for their students. It's not about the technology, it's how we use the technology in our classrooms to promote student success.

# The End



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References: [Click Here](#)

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