

CEO Forum School Technology and Readiness (STaR) Chart: A New Look at Digital Learning

How to find your school's digital learning profile

The CEO Forum's STaR Chart is a guide, not a definitive measure, of a school's effectiveness in integrating technology into the teaching and learning process. Your school may fall within one category based on certain indicators and in another based on others. Such mixed readings are expected because every school is unique. The STaR Chart allows any school, district, or state, no matter what its budget, priorities, or current educational technology profile, to better understand where it is today and to better plan for its future goals.

1 Select one of the three categories located across the top: Hardware & Connectivity, Professional Development, Digital Content or Educational Benefits.

2 Under the selected category, find the box that best describes your school's efforts (it's possible that your school may fall between two boxes).

3 After finding where your school falls, compare your school's program components with the ones listed in the Target Tech box, which describes the ideal scenario.

4 Use your findings to start discussions with staff, administrators, technology directors, school board members, and community leaders about improving the professional development portion of your school's education technology plan.

Star Indicators	Hardware & Connectivity						Professional Development					Digital Content								Educational Benefits*		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Students per instructional computer	Students per instructional computer connected to the Internet	Technical support	% of instructional rooms and administrative offices connected to the Internet	Quality of school's connection to the Internet	Use and availability of other forms of hardware technology	Capabilities of teachers	Capabilities of administrators	Delivery and format of professional development	% of technology budget allocated to professional development	Understanding and use of digital content by educators	Educational objectives	Content budget allocation to purchase digital content	Format	Teachers		Students		Parental and Community Involvement	Measurement and assessment	*These will be expanded in the Year 4 Report	
															Teachers integrate digital content to enhance instruction	Role of Teacher	Frequency of instruction using digital content	Students employ digital content to enhance learning	% of students using digital content			
EARLY Tech	More than 10	More than 10	Takes several days	More than 25%	Slow connection, e.g., 56Kbps	VCRs, cable TV, projection devices, calculators	<ul style="list-style-type: none"> Basic technical skills including applications such as word processing Little or no use in instruction 	Basic technical skills including applications such as word processing	<ul style="list-style-type: none"> Group Face-to-face 	Less than 5%	<ul style="list-style-type: none"> 100% at entry or adoption phase (see definitions on inside back flap) A few use for lesson planning 	25% or more of teachers identify educational objectives that could be better met by digital content	Use some supplemental instructional materials funds only	Prepackaged software	Use as a supplement rather than an integral part of the curriculum	Teacher-centered	Weekly	Reinforce basic academic skills	25% or more	School web page communicates one-way with parents and community	No use of digital strategies for assessment	<ul style="list-style-type: none"> Master basic academic skills through linear drill and tutorial software
DEVELOPING Tech	10 or less	10 or less	Takes place next day	50% or more	<ul style="list-style-type: none"> Always connected Graphics are slow 	Telephones, voicemail, digital cameras	<ul style="list-style-type: none"> Utilize standalone software Employ some Internet and e-mail 	<ul style="list-style-type: none"> Utilize standalone software Employ some Internet and e-mail 	<ul style="list-style-type: none"> Group One-on-one Face-to-face Use embedded help within applications 	6-10%	<ul style="list-style-type: none"> 100% at adaptation phases Some begin to use with students 	50% or more of teachers identify educational objectives and integrate digital content into instruction	Use significant instructional materials budget, but little to no textbook budget	<ul style="list-style-type: none"> CD-ROM Searchable, online content 	Use to streamline administrative functions, to communicate and for presentation	Teacher-directed	3-4 times a week	Use for research, communications and presentations	50% or more	Limited access to two-way communications link via email, web tools (e.g., attendance data)	25% or more use digital strategies for assessment	<ul style="list-style-type: none"> Improve higher-order critical thinking with access to multimedia content Greater information resources available for research and education from Internet and CD-ROM but constricted due to lack of access
ADVANCED Tech	5 or less	5 or less	Takes place same day	75% or more	<ul style="list-style-type: none"> Video is possible Broadband is possible 	Random access video, scanners	<ul style="list-style-type: none"> Integrate digital content into instruction Manage classroom learning with technology 	<ul style="list-style-type: none"> Use accounting software Manage student information systems 	<ul style="list-style-type: none"> Group One-on-one Face-to-face Online 	25-29%	100% at appropriation phases	75% or more of teachers identify educational objectives and integrate digital content into instruction	Scrutinize entire budget and shift funds from textbook budget to acquire digital content	Manipulatable digital content and tools available commercially and on the Web	Use for research, lesson planning, multimedia and graphical presentations and simulations and to correspond with experts, peers and parents	Teacher-facilitated	Daily, but activities are separated by grade, discipline, classes	Use for research, to solve problems, to analyze data, to collaborate and to correspond with experts and peers	75% or more	<ul style="list-style-type: none"> Two-way communications link parents and community Some school technologies available at home 	<ul style="list-style-type: none"> 50% or more use digital strategies for assessment Experimenting with technology for measurement and accountability 	<ul style="list-style-type: none"> Improve higher-order thinking, research, collaborative and creative skills Greater information resources available for research and education from Internet and CD-ROM Most students/teachers able to communicate with parents, experts, other students and teachers outside school
TARGET Tech	1 student per instructional computer	1 student per instructional computer connected to the Internet	Tech support available 24/7	100% or more of all instructional rooms and administrative offices are connected to the Internet	Broadly available video and broadband	There is broad use of a wide variety of other technologies such as two-way video conferencing, VCRs, cable TV, telephones, voicemail, random access video, personal digital assistants, projection devices, digital cameras, scanners, calculators, etc.	Create a digital learning environment	<ul style="list-style-type: none"> Support a digital learning environment Institute data driven decision making 	<ul style="list-style-type: none"> Group One-on-One Face-to-face Online Anytime, anywhere Customized 	30%	100% at appropriation or invention phases	100% of teachers use digital content when appropriate to meet individual student learning needs, and state and local education objectives	100% instructional materials budget is available to purchase "most appropriate" content	Full range of digital content and tools structured to support production and collaboration	Digital content changes the teaching process, allowing for greater levels of inquiry, analysis, interest, collaboration, creativity and content production	Teacher as guide; Student-centered	Seamlessly integrated throughout all classes and subjects on a daily basis	Digital content changes the learning process, allowing for greater levels of collaboration, inquiry, analysis, creativity and content production	100% of students using digital content across all subjects and disciplines	<ul style="list-style-type: none"> Seamless integration of feedback loops among parents, community and school. Parents, community interact to create content with students Learning at school, and at home occurs seamlessly 	<ul style="list-style-type: none"> Systematic continuous improvement using digital content and tools Use of technology for measurement and accountability 	<ul style="list-style-type: none"> Fully develops and supports the evolving 21st century skills and standards defined by SCANS and ISTE that students will need to thrive in today's educational environment and tomorrow's workplace Student-centered authentic project-based learning Collaborative learning allows students to develop teamwork, communication, and problem-solving skills All students/teachers able to communicate with parents, experts, community members and teachers outside the school Improve academic achievement

The CEO Forum STaR Chart

a Tool for Assessing School Technology and Readiness



Year Three

The CEO Forum
on Education
and Technology

June 2000

About the STaR Chart A Tool for Assessing School Technology and Readiness

The STaR Chart can help any school or community answer some critical questions:

- Is your school using technology effectively to ensure the best possible teaching and learning?
- What is your school's current education technology profile?
- What criteria should be used in judging your progress?

First released in 1997, the STaR Chart was created by the CEO Forum to provide a clear framework for understanding how well schools are prepared to equip students with the knowledge and skills they need to thrive in today's information technology economy.

The STaR Chart is a tool that can help all schools create and implement a plan for improving education with the help of information technology. Over the past year, education leaders nationwide have used the STaR Chart as a road map to help understand and plan for the integration of education and technology. Here are some of the ways the STaR Chart has been put to use:

- **Setting benchmarks and goals** Schools, districts, and states have used the STaR Chart to identify current education technology profiles, establish goals, and measure their progress.

- **Applying for grants** The STaR Chart has helped schools and school districts identify their education technology profiles and objectives as they apply for technology-related grants.

- **Determining funding priorities** Education leaders have also used the STaR Chart to help determine where to allocate funds to fill gaps.
- **Creating assessment tools** Education policymakers have used the STaR Chart to help construct their own state technology assessments.

The new Year 3 STaR Chart provides an in-depth look at digital learning and digital content ranging from "Early Tech" to "Target Tech."

The CEO Forum believes that the key to creating the best possible educational environments in the 21st century is the seamless integration of technology, connectivity, content and people throughout the curriculum. We define this integrated approach as digital learning.

The CEO Forum on Education and Technology

Founded in 1996, the CEO Forum on

Education & Technology is a unique four-year partnership between business and education leaders who are committed to assessing and monitoring progress

toward integrating technology in

America's schools. The CEO Forum hopes

to ensure that the nation's students will

achieve higher academic standards and

will be equipped with the skills they

need to be contributing citizens and

productive workers in the 21st century.

Organizing Principles

- All students must graduate with the technology skills needed in today's world and tomorrow's workplace.
- All educators must be equipped to use technology as a tool to achieve high academic standards.
- All parents and community members must stay informed of key education technology decisions confronting policymakers, administrators and educators.
- All students must have equitable access to technology.
- The nation must invest in education technology research and development.

The CEO Forum Four Year Agenda

Year 1: *The School Technology and Readiness Report: From Pillars to Progress* (October 1997)

The first report issued by the CEO Forum focused on the importance of integrating all the elements of education technology, from hardware and connectivity to professional development and content.

- STaR Chart, a self-assessment tool for schools to gauge progress toward integrating technology to improve education.
- STaR Assessment, a benchmark measure of national progress toward integrating technology in schools.

Year 2: *Professional Development: A Link to Better Learning* (February 1999) This second-year report focused on educator professional development, the foundation for effective use of technology in education.

- Ten Principles for Effective Professional Development
- STaR Chart Update
- STaR Assessment Update

Year 3: *The Power of Digital Learning: Integrating Digital Content* (June 2000) This report offers a vision for digital learning and

focuses on the actions that schools, teachers, students and parents must take to integrate digital content into the curriculum to create the learning environments that develop 21st century skills.

- A Vision for Digital Learning
- STaR Chart Update
- Key Questions for Digital Learning

Year 4: The CEO Forum will release its final report, focused on educational outcomes and assessments, in Spring 2001.

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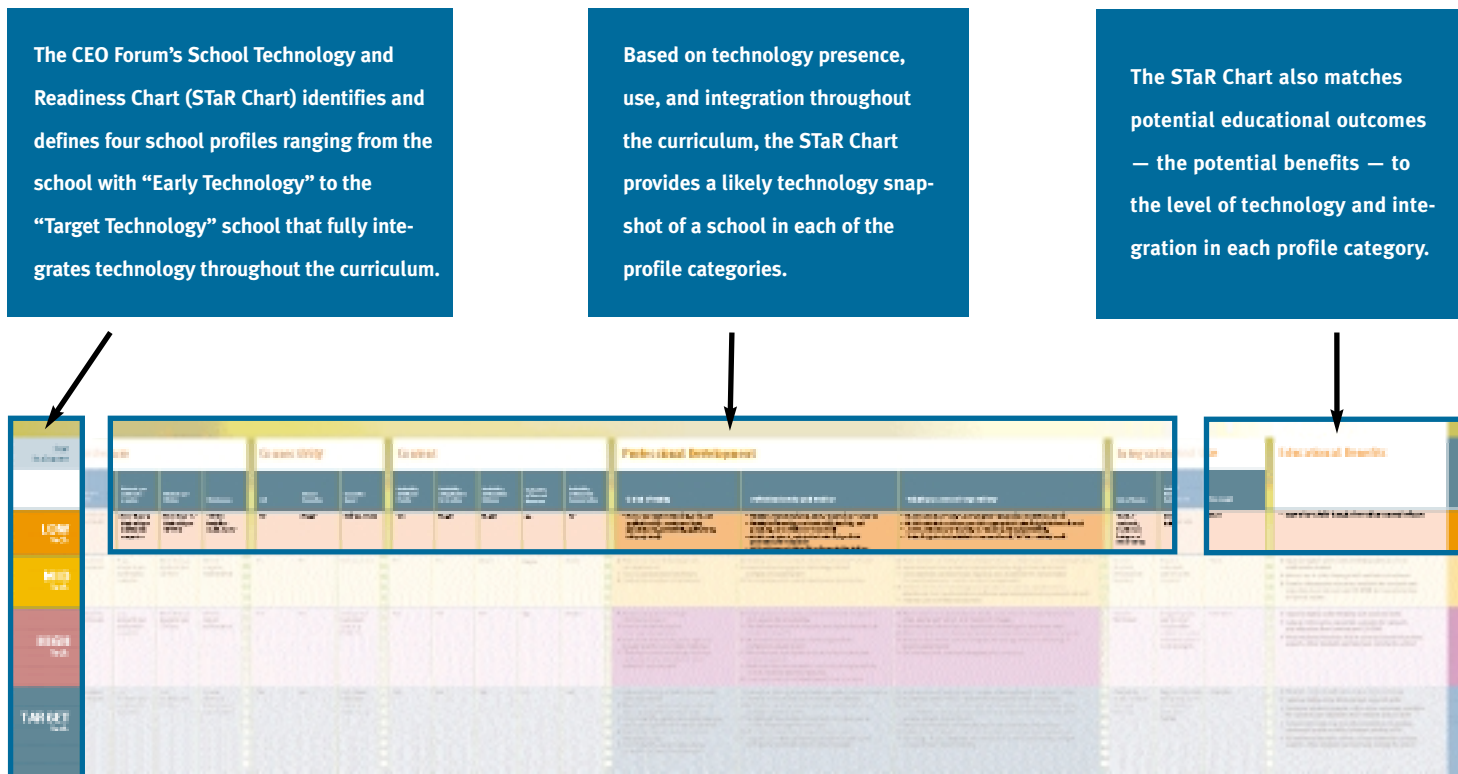
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The Stages of Professional Development

In defining professional development profiles, the Year 3 STaR Chart builds upon the five phases of professional development identified by Apple Classrooms of Tomorrow (ACOT) through a decade of research on the instructional changes that occur during the process of integrating technology to transform the learning environment:

- **Entry** Educators struggle to learn the basics of using technology.
- **Adoption** Educators move from the initial struggles to successful use of technology on a basic level (e.g., integration of drill and practice software into instruction).

- **Adaptation** Educators move from basic use to discovery of its potential for increased productivity (e.g., use of word processors for student writing, and research on the Internet)
- **Appropriation** Having achieved complete mastery over the technology, educators use it effortlessly as a tool to accomplish a variety of instructional and management goals.
- **Invention** Educators are prepared to develop entirely new learning environments that utilize technology as a flexible tool. Learning becomes more collaborative, interactive and customized.