

South Carolina
K-12 School Technology Initiative
2011-12 Progress Report

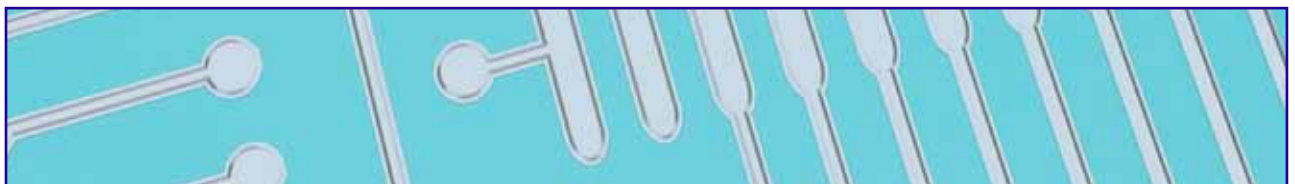


Table of Contents

Introduction & Background.....3

Learners & Their Environment.....6

Community Connections.....14

Professional Capacity.....16

Instructional Capacity.....20

Support Capacity.....21

Conclusion.....25

Appendix A – Milestones.....26

Appendix B – Charts.....31

Appendix C – What Others Are Saying.....34

Introduction & Background

Since its inception in 1996, South Carolina's K-12 School Technology Initiative partnership has proven instrumental in the creation of a high-tech, curriculum standards-based, educational platform that is accessible by each of the state's districts, K-12 schools and public libraries. This platform – which includes a robust delivery infrastructure, award winning educational content, powerful student/school information management tools and a variety of comprehensive professional training opportunities – is essential in ensuring that schools and libraries in the Palmetto State have the ability to leverage today's state-of-the-art technology to help develop the workforce of tomorrow.

More than a decade ago, South Carolina had the boldness and foresight to position itself at the forefront of K-12 education by ensuring that each of its schools was equipped with high-speed T-1 access and by funding the development of educational content by South Carolina ETV and the South Carolina State Library. Shortly thereafter, the State Department of Education added an array of new administrative tools designed to assist district and school administrators in the critical task of tracking student data and educational achievement.

As a result of this vision, South Carolina soon found its K-12 educational platform the envy of much of the nation. But clearly, the costs associated with the development of such a

system are not one-time expenses, as pieces must be periodically rebuilt as supporting technologies become obsolete and the demand for more and better content grows among learners and educators.

Such has been the case over the last decade. Static Web sites have been replaced with interactive sites and life-like simulations, resulting in more engaging and successful learning outcomes. New libraries of standards based content must be purchased as licenses expire. New and more comprehensive school and student management tools have been implemented. In addition, each new classroom technology that emerges necessitates further ongoing professional training opportunities to ensure the effective use of these tools.

“Within two years, the minimum funding required just to meet basic bandwidth upgrade needs of our schools will likely equal 100% of this year's K-12 Initiative budget.”

As a result of the use of these advances, the sheer volume of information being sought and transferred within school networks has grown exponentially, and with it so has the need for additional bandwidth. To the increasing costs of maintaining, updating and acquiring content must be added the costs of continually increasing both K-12 network and Internet connection bandwidth.

The reality of the cost increases associated with this technology is not a passing trend, as the days in which a typical school might

be fortunate enough to operate a single computer lab, with limited availability for students to use, are long gone. Today, a growing number of South Carolina's K-12 schools are providing tablets and laptop computers for entire grade levels, with the trend clearly moving in the direction of one networked device per student. This movement will undoubtedly have a continued and clear impact on the capabilities of school and district network and Internet connections.

Today's baseline network bandwidth for a K-12 school in South Carolina is 100 megabits per second, or 67 times the data capacity of the T1 connection installed 12 years ago. Many of our larger schools and districts already require 1 gigabit per second connections – nearly 670 times the speed of a T1 connection – with plans in some cases to advance to 2 or 3 gigabit per second connections.

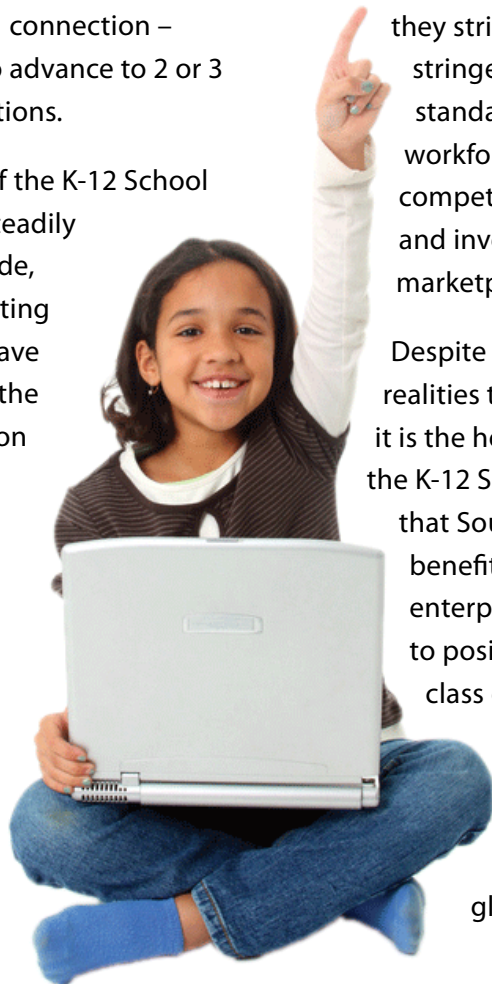
As funding for the efforts of the K-12 School Technology Initiative has steadily declined over the last decade, the costs required for updating the educational platform have steadily increased, placing the two on an economic collision course.

In spite of efficiencies and cost savings attained by optimizing network topographies, adopting new and cost-effective technologies and negotiating more favorable rates for connectivity, the total cost of upgrading bandwidth comprises 80%

of the current year's K-12 School Technology Initiative budget and the network budget is supplemented on a 3:1 basis by federal E-rate funds. Within two years, the minimum funding required just to meet basic bandwidth upgrade needs of our schools will likely equal 100% of this year's K-12 Initiative Budget.

The obvious outcome of these trends will be to force the painful necessity of either failing to meet the school's needs for faster and more powerful networks, or eliminating the maintenance or acquisition of substantial portions of classroom educational content, management applications and training currently provided to schools and districts. Either eventuality could prove disastrous for South Carolina's K-12 schools, as they strive to meet ever more stringent academic achievement standards and develop an educated workforce that allows the state to compete for business development and investment in the global marketplace.

Despite the difficult economic realities that impact the state budget, it is the hope of each of the partners in the K-12 School Technology Initiative that South Carolina will once again benefit from the wisdom and enterprise that allowed the state to position itself at the head of the class over a decade ago, or risk seeing that leadership lost at a time when the state can ill afford to be less competitive nationally or globally.



In order to build upon the vision of the South Carolina Legislature and the combined efforts of the K-12 School Technology Initiative partners, it is critical that funding for the provision of digital educational content, of networked administrative management tools and of further deployment of high-capacity connectivity, be restored to the levels seen more than a decade ago when South Carolina first stepped forward to address this ongoing educational need.

Only by making a bold push similar to that undertaken by our state in the late 1990s can we achieve the level of technology leadership that our students need and deserve if they are to help make South Carolina a prime destination for development, entrepreneurship and industrial expansion.



About the Initiative:

The South Carolina K-12 School Technology Initiative was founded in 1996, as part of the General Assembly’s proactive approach to addressing technology infrastructure, connectivity and education in schools throughout the Palmetto State.

The Initiative – steered by a unique public/private partnership that includes the S.C. Budget and Control Board, S.C. Department of Education, S.C. Educational Television, S.C. State Library and the private sector represented by AT&T and the S.C. Telecommunications Association – guides the distribution of funds appropriated by the Governor and General Assembly. These funds collectively help to meet our schools’ needs for software, hardware, connectivity, digital content, instructional technologies and professional development opportunities.

The K-12 School Technology Initiative is extremely proud of its progress in the development and implementation of educational technology as well as the strides that have been made in providing infrastructure initiatives designed to produce more successful students in South Carolina.

It is our hope that the leaders of the Palmetto State will continue their history of using the K-12 School Technology Initiative to guide the provision of high-quality, information-rich education for all students.

Contact Us:

S.C. K-12 School Technology Initiative
4430 Broad River Road
Columbia, S.C. 29210
Web site: <https://sck12techinit.sc.gov>

Learners & Their Environment

South Carolina Technology Plan Goal:

Embed digital information systems into research-proven instructional strategies so that our students achieve technological literacy, attain 21st century skills and meet the state's academic standards.

Partnership Efforts to Support the Goal:

The aim of today's K-12 educational effort is not only to provide our children with a strong foundation of knowledge in a wide range of subjects, but, perhaps more importantly, to infuse students with 21st century learning skills. In today's emerging "knowledge economy," the tools and methodologies placed at the disposal of learners to make practical use of that knowledge are of paramount importance.

South Carolinians currently in the state's K-12 school system will be called upon to compete globally in science, technology, engineering and math disciplines in a workplace characterized by rich-media enhanced digital technology. This statement will undeniably prove accurate in the lucrative high-technology manufacturing jobs actively being sought by the

Palmetto State's business development specialists.

If we expect our state to be competitive in the global marketplace, our students must graduate from our educational system not only informed with the latest information, but endowed with a deep mastery of the advanced skills required to excel in the 21st century workplace. These skills – ranging from

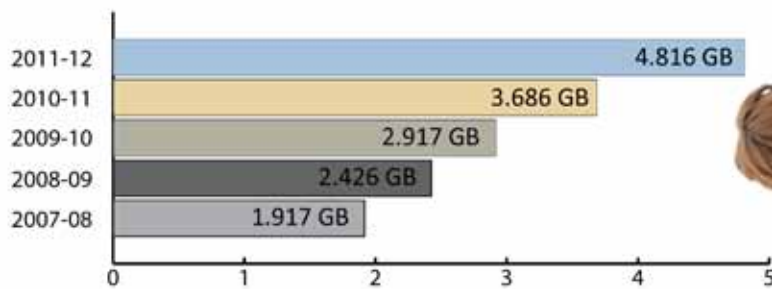
the ability to perform complex mathematical calculations and employ state-of-the-art computer software to programming high-precision machine tools – can only be successfully imparted in a learning environment that focuses on the real-world uses of educational technology.

Following a period of enthusiastic but somewhat unfocused growth in the use of digital technology in the classroom, such resources have begun to mature around a number of core precepts that have produced concrete learning outcomes. Such results – including the ability to discover and manipulate information, the capability to use networks and connectivity to develop and create collaboratively and to develop the skills and comfort level necessary to become part of the rapidly emerging "mobile workforce" – are highly valuable assets that South Carolina's K-12 learners must foster in order to make the state a viable and attractive destination for future economic growth. These are the broad technology skill sets that today's technology-driven K-12 learning environment must instill in our learners.

The skills needed to compete in the 21st century workplace can only be successfully imparted in a learning environment that focuses on the real-world uses of educational technology.

In the last five years, technology use patterns in South Carolina's K-12 schools have begun to shift decisively away from the "one computer per classroom" or "one class period per day in

Growth of Bandwidth Demand in School Districts



the computer lab” models toward a paradigm that more closely reflects the way the modern world works. Schools are finding themselves with an ever increasing percentage of students with individually assigned or personally owned laptop computers or tablets. On-campus wireless networks, once a rarity, are increasingly commonplace and are routing additional learning activity towards already congested Internet gateways. Digital educational content provided by the South Carolina State Library, South Carolina ETV, Public Broadcasting System and other respected sources is being used not only by one teacher in a single classroom for twenty-five students, but individually and asynchronously by a multitude of learners. These new realities make heavy and rapidly growing demands on both local and wide area network bandwidth and Internet gateway capacity, demands that are likely to grow even more rapidly in the future.

The K-12 School Technology Initiative Partnership has made enormous efforts to both predict and proactively address the need for additional bandwidth in our K-12 schools. Current baseline bandwidth requirements are set at levels unimaginable

ten years ago, and this need will continue to grow exponentially into the future. The K-12 Technology Initiative, in collaboration with the Division of State Information Technology, the State Department of Education and the state’s K-12 school districts, monitors network and Internet activity to ensure that wasteful non-educational use of school resources is minimized and to guarantee that requests for additional bandwidth with state funding support are triggered by genuine instructional and administrative needs.

The K-12 Technology Initiative Committee’s partners have made tremendous strides in their efforts to help achieve these goals through a variety of successful programs. Such programs include:

DISCUS

The Digital Information for South Carolina Users (DISCUS), South Carolina’s virtual library, is an invaluable resource supported by the K-12 School Technology Initiative. Administered by the South Carolina State Library (State Library), DISCUS uses K-12 School Technology Initiative funds to help provide an electronic library of essential high quality information and educational resources

to all state residents through schools, higher education institutions and public libraries.

Through DISCUS, South Carolinians have the ability to access thousands of magazines, newspapers, encyclopedias, videos, career practice tests and more on a 24x7 basis. Since its inception over 10 years ago, there has been a continual growth in usage. The chart below illustrates DISCUS usage over time and demonstrates the program's contribution to the K-12 learning environment. In Fiscal Year 2011-12, South Carolinians retrieved 15,457,738 million items, a 14.7 percent increase over the previous year. Historically, the K-12 community has been responsible for a large portion of these retrievals, accounting for approximately 66-69 percent of the overall DISCUS usage.

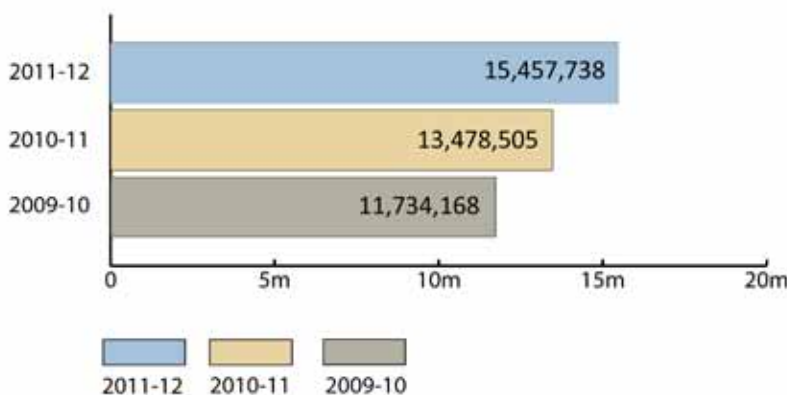
In the newly revised South Carolina Standards for a School Library Core Resource Collections (2009), DISCUS was included as an indispensable resource to help school libraries meet these standard collection recommendations for all grades – elementary, middle and high school. Without DISCUS,

many resource-constrained schools could not meet these core collection recommendations. DISCUS helps level the playing field for students by providing the same high quality resources regardless of economic status or geographic location. Without access to high quality, current and age appropriate information, student learning suffers. As such, K-12 media centers, as well as academic and public libraries, directly benefit from the availability of DISCUS.

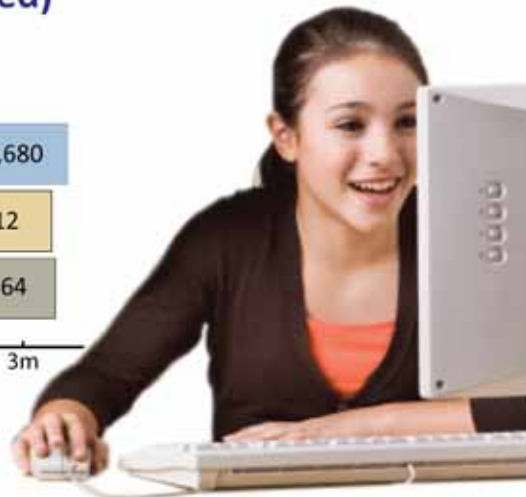
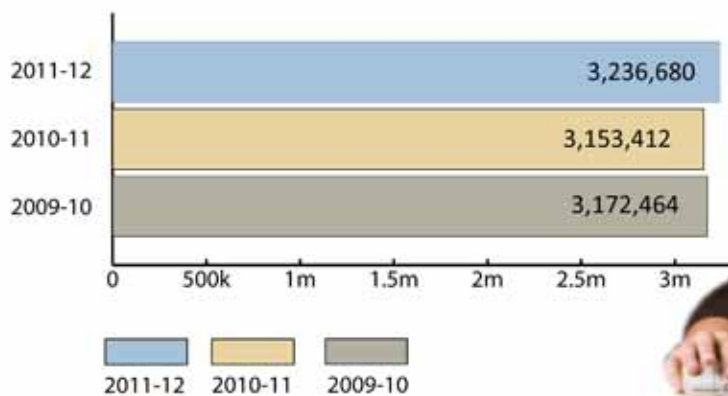
In an effort to proactively monitor changing needs and priorities, the State Library/DISCUS conducted an extensive evaluation project during much of FY 2011-12. The evaluation project included focus groups, product trials and user feedback on over 50 products. A new collection for FY 2012-13 was developed, which will retain many of the most heavily used products while adding much needed content in other areas.

During the course of this project, the State Library forged a partnership with the Partnership Among South Carolina Academic Libraries (PASCAL) which has

DISCUS Usage (Items Retrieved)



StreamlineSC Utilization (Items Viewed)



helped to provide a richer array of resources – utilizing combined funding efforts – than had previously been available through the DISCUS collection. This partnership is another excellent demonstration of collaboration, resource sharing and cost effective use of combined funds envisioned when the Legislature created the K-12 School Technology Initiative.

DISCUS provides an excellent return on investment from both a learning perspective and from a cost efficiency standpoint as indicated through the following information:

- DISCUS Database license costs budgeted for FY 2011-12 were \$2,237,078
- If each library purchased access separately, the total cost would be over \$54 million
- Administration of this statewide program provides cost avoidance of over \$51.7 million (DISCUS license renewal costs were over \$2 million)
- All state funding for DISCUS goes directly to database acquisition

StreamlineSC

South Carolina ETV (ETV), in partnership with the K-12 School Technology Initiative, the South Carolina Department of Education (SCDE) and school districts, offers StreamlineSC, a collection of over 10,000 video clips accessible by the state's teachers and students. StreamlineSC, a standards-based video-on-demand service that utilizes Discovery Education Streaming, is offered to all public, private and home-school students. The content includes over 4,000 local videos available from ETV and SCDE's Office of eMedia. This amount represents nearly 40 percent of the 10,000 plus videos available on-demand over the Internet. ETV, SCDE, local school districts and Discovery Education provide the programs, as well as thousands of digital images, songs, sound effects, speeches and pieces of clip art. Schools also have access to an interactive quiz center, pre-produced classroom activities, tests and teachers' guides. StreamlineSC generated 3.2 million page views in FY 2011-12, continuing to represent the highest per teacher user in the nation for a service of this kind.

Digital Education Services

An Internet Protocol (IP) based content delivery channel from SCETV to South Carolina's K-12 school districts is in the process of being deployed. Currently, 73 of the 81 districts are equipped with a Digital Education Services (DES) IP media distribution server and software. These servers assist in the rapid, high-quality delivery of on-demand educational video clips to schools while reducing the bandwidth load placed on the district's Internet connection.

OnePlaceSC

SCETV and its education partners offer a variety of quality K-12 educational content Web sites. A key to accessing all of these educational initiatives is SCETV's OnePlaceSC, a single K-12 Web portal that provides access to all Web content through one site. The site features SCETV resources including StreamlineSC and Knowitall.org, as well as partner resources available through the State Library's DISCUS, PBS and affiliates, SCDE and local districts. Users can easily search all of these sites and locate the assets they need from a single inquiry. OnePlaceSC also provides professional development opportunities as well as local and statewide broadcast TV guides for all the education and broadcast programs offered live to the K-12 community.

Knowitall.org

Another indispensable resource supported through the K-12 School Technology Initiative is SCETV's Knowitall.org. Created for K-12 students, teachers and parents, Knowitall is a free online collection of original and engaging educational resources designed

specifically for classroom use. This award winning Web portal contains interactive sites, simulations, image collections, virtual field trips and streaming video designed to support and provide quality inquiry-based experiences for South Carolina's students.

Knowitall content is not only tied to state and federal K-12 curriculum standards, it is also the type of resource that students actively seek out, use and enjoy. Since its inception in 2001, Knowitall has proven to be extremely popular with students of all ages as demonstrated by a consistent and impressive growth in its utilization. In spite of increasing difficulty in the development and deployment of new content resulting from staff reductions, this growth continued in fiscal year 2011-12, as the number of Knowitall page views increased by 21 percent when compared to that of the previous year. Based on these numbers and its curriculum standards, teachers and parents can be confident that students are not only enjoying



Knowitall Utilization Comparison

Figure 4

	2009-10	2010-11	2011-12	% Incr./Decr.
Visits	989,023	717,477	911,837	+ 21%
Page Views	6,010,566	4,474,721	4,073,747	- 9%
Unique Visitors	643,390	497,080	783,816	+ 37%

themselves, but classroom learning objectives are being supported as well.

During the 2011-12 reporting period, Knowitall educational resources were viewed more than four million times. Web sites such as Artopia, a virtual arts festival for K-12 students; Hobby Shop, where students can learn math and science while experimenting with virtual chemistry sets and model rockets; and Gullah Tales, which teaches English, history and South Carolina’s own Gullah heritage, continue to enjoy great popularity with students, teachers and parents. Career Aisle also continues to grow with the addition of new career counseling videos aimed at assisting counselors and students in focusing learning on marketable career objectives. New content has also been created for Knowitall’s popular RiverVenture Web site, which allows students to travel virtually down the entire length of one of South Carolina’s primary watersheds, the Saluda-Congaree-Santee Cooper River complex. Web of Water traces a kayaking trip from the mountains to the sea, along South Carolina’s rivers and employs video, blogging, simulations and tie-ins to other Knowitall sites, such as RiverVenture, A Natural State and SCLife, to illustrate

how water interconnects the state’s history, cultures, ecosystems and people. In 2010, Web of Water received the nationally prestigious Corporation for Public Broadcasting (CPB) “Innovation in Education” Award, designed to recognize and showcase examples of how local public media organizations are using innovative approaches and emerging digital technologies to serve the educational needs of their communities.

New content on Knowitall.org includes:

- La Ropa Sucia (www.knowitall.org/laropasucia/index.html) was created to shed light on issues facing Hispanic teens.
- NatureScene Interactive (www.knowitall.org/naturescene/index.html) allows users to take a virtual tour of 20 of the most scenic areas in the Southeast. ETV Radios’ NatureNotes audio podcasts are available on NatureScene Interactive.
- The Catawba River Module on RiverVenture (www.riverventure.org) explores the river’s role and the world famous colony of rare Rocky Shoals Spider Lilies.

- The Pee Dee Explorer (www.scetv.org/index.php/pee_dee_explorer), is a Web site created in partnership with the Pee Dee Land Trust which highlights the many natural ,cultural, historic and landmarks of the Pee Dee region.
- The ETV American Graduate (scetv.org/americangraduate) Web site was one of 41 public television stations to receive a grant from the Corporation for Public Broadcasting to inform the public on the dropout crisis and link stakeholders – including educators, parents and students – to local educational resources, community organizations, youth groups and alternative learning options.

The Public Broadcasting Service (PBS) Digital Learning Library is a comprehensive source of learning objects, including video, audio, images, games and interactive learning activities designed specifically for classroom use and delivered to teachers exclusively through local PBS member stations. SCETV was invited to contribute content to the PBS Digital Learning Library Producer Pilot Project because of its record of developing

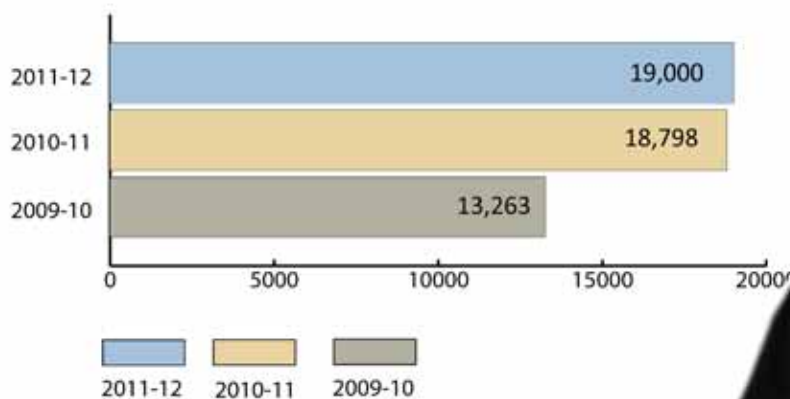
award-winning, high-quality, interactive digital learning media. PBS Kids provides a comprehensive transmedia platform for early literacy and the science, technology, engineering and mathematics (STEM) curriculum. Visit www.pbskids.org to view these resources.

StudySC.org

In 2010, the State Library launched StudySC.org, a K-12 educational resource that provides online content designed to support South Carolina-specific curriculum standards. StudySC provides South Carolina-specific Web resources for K-12 homework and project assistance while also offering teachers lesson plans and other content designed to support classroom activities. Information – including links to high quality Web sites and multimedia content – is arranged by grade level and subject area, thereby enabling students to access the information they are looking for as efficiently as possible.

The concept for StudySC emerged from feedback indicating the need for a comprehensive portal to assist in locating

S.C. Virtual School Program Enrollments



age-appropriate state information. StudySC was created to meet this need and to support 3rd and 8th grade social studies curriculum standards. Subjects include culture, government, environment and geography as well as history. In addition, the site includes a section on famous South Carolinians, a glossary and South Carolina Book Award nominees from the South Carolina Association of School Librarians.

In Fiscal Year 2011-2012, StudySC had over 53,000 visits from across the state.

South Carolina Virtual School Program

The South Carolina Virtual School Program (SCVSP), a program developed in 2007 by the South Carolina Department of Education's Office of e-Learning, provides an invaluable resource to students throughout the state by offering online courses for high school credit, free-of-charge. These courses, available to any South Carolina public, private or home schooled student, are provided online via the telephone, e-mail, instant messaging and through real-time Web conferencing software.

In 2011-12, SCVSP enrolled 16,241 students from a total of 88 school districts, public and state run districts, the Governor's School for Science and Mathematics, the John de la Howe School, 34 private schools, 11 charter schools and 15 Home School Associations.

SCVSP offers courses in nine subject areas including Career and Technology, Fine Arts, World Languages, English, Health/Physical Education, Mathematics, Science, Social Studies and Test Preparation. SCVSP courses are taught by state-certified teachers who have not only shown expertise in their fields, but who have also received state sponsored

training for teaching online courses.

All full-time instructors hold a rating of "highly qualified" in their subject area by the SCDE and have an average of 14 years of teaching experience. In addition to their outstanding credentials, all full-time instructors and adjunct instructors must undergo pre-service and in-service Online Professional Development courses before being allowed to teach at the SCVSP.

To ensure that course offerings meet SCDE assessment requirements and align to state standards, materials are evaluated by a SCDE curriculum coordinator as well as by outside experts. While 100 percent alignment with state standards is desired, 90 percent alignment is accepted. Currently, over 95 percent of the courses taught at SCVSP are aligned at 100 percent.

It is the practice of SCVSP to evaluate all of its courses every two years. In addition to this requirement, SCVSP will evaluate a course if its content is changed to a significant degree such that its alignment may be questionable, or if the standards themselves are changed. In addition, SCVSP evaluates all courses for the South Carolina Virtual Charter School as well as the state's other virtual schools and online learning programs.

SCVSP used 18 full-time instructors for the September through June sessions. In addition to full-time instructors, the SCVSP also uses 47 adjunct instructors.

Community Connections

South Carolina Technology Plan Goal:

Use technology, including assistive technology and digital information systems to maximize community involvement and community partnerships and to increase student achievement.

Partnership Efforts to Support the Goal:

Although a major focus of the K-12 School Technology Initiative is, in fact, the educational mission of the state's K-12 schools, it is also true that the benefits of modern educational technology spill over into the larger community. From its inception, the K-12 School Technology Initiative has supported the implementation of information technology in the state's network of public libraries, providing free access to computer, e-mail and Internet technology to library patrons, many of whom cannot access these resources privately. Such access has never been more important than it is today, as the large majority of job openings require that applicants not only fill out an on-line application, but also have a valid email account.

In this context, initiative partners South Carolina ETV (SCETV) and the South Carolina State Library further assist those entering or re-entering the job market by providing indispensable career development resources that help each South Carolinian become a

productive member of the state's workforce.

The K-12 Technology Initiative Committee's partners have made tremendous strides in their efforts to help achieve these goals through a variety of successful programs. Such programs include:

Knowitall.org

SCETV provides essential information and service to the general public through a number of Knowitall.org Web sites, including Career Aisle and Kids Work! During the current economic downturn, and its accompanying high unemployment rates, career guidance and jobs-oriented content are of critical value to the community as a whole.

Through its Career Aisle Web site, SCETV assists K-12 guidance professionals in directing students toward curriculum paths that lead to increased employability and earnings potential. In light of the nation's present economic climate and increasingly global competition, it is crucial that our educational processes not only supply students with the factual knowledge necessary for a sound education, but also offer the proper foundation to pursue meaningful careers through post K-12 technical, university studies or direct job experience.

During FY 2011-12, Career Aisle had 410,000 page views while Kids at Work had 81,000 page views.



Through the expert commentary and insight of business, commercial, governmental and guidance professionals, Career Aisle provides in-school, district and state-level guidance staff with valuable resources to better assist students in choosing, and successfully passing, the right course of study to ensure their marketability in the workplace. The videos found on the Career Aisle site are arranged in a convenient, intuitive and topical manner so as to connect guidance professionals quickly with the resources they need.

The Knowitall Web site

Kids Work! provides students the ability to participate in simulators focused on the subject materials – such as math, science and technology – that underlie nearly every occupation. Simulations are tied to state curriculum standards and bolster the efforts of classroom teachers to engage students interested in the subjects that will ensure their value as skilled contributors to the state’s economic viability in the future.

DISCUS

The South Carolina State Library’s Digital Information for South Carolina Users (DISCUS) program is designed to help ensure a level playing field for all South Carolinians by providing access to high quality information needed for general research, consumer and health issues, small business development and career exploration.

In 2011-12, DISCUS continued to provide several career and workforce development products designed to help students begin to determine potential career paths while also

assisting many of the citizens of the state in their efforts to return to work. These products include such resources as Ferguson’s Career Guidance Center, LearningExpress Library and the EBSCO Career eBook collection.

Ferguson’s Career Guidance Center is a career research database that includes overview articles and videos on over 3,000 jobs and 94 industries, broken down into 16 career

“With the increasing cost of print materials and a shrinking budget, DISCUS provides resources our school would not be able to afford.”

clusters created by the U.S. Department of Education. Ferguson’s also includes searchable entries on scholarships, internships and more. LearningExpress Library is an interactive tool that provides practice tests and tutorials designed for both students and adult learners to succeed on academic and licensing exams. Feedback includes immediate scoring, complete answer explanations and individualized analysis of the user’s results.

Having these kinds of practical resources available in public libraries, schools and higher education institutions creates connections within the community and helps increase citizen involvement.

Professional Capacity

South Carolina Technology Plan Goal:

Provide curriculum development and professional development/training to increase the technical competency of all South Carolina educators so that research-proven strategies and the effective integration of instructional technology systems can continue to increase student achievement.

Partnership Efforts to Support the Goal:

Teaching in today's K-12 classroom places unprecedented demands on our educators, especially in the mastery of instructional technology. Although our teachers leave college and enter teaching service better prepared in this sense than ever before, the life cycle of instructional technology is so accelerated that constant update and re-qualification is required if an educator is to stay abreast of current classroom technology.

The "consumerization" of information technology in our schools, with the rapid spread of low-cost "smart" devices such as netbooks, tablets and smartphones is creating a complicated and ever-changing technology landscape that places even greater professional development burdens on educators.

In an effort to help ease these demands, the K-12 School Technology Initiative partners provide a wide range of insightful and up-to-date professional development opportunities to teachers and administrators who must interface with a generation of learners who can't recall a world without the existence of personal computers and smart devices.

The K-12 Technology Initiative Committee's partners have made tremendous strides in their efforts to help achieve these goals through a variety of successful programs. Such programs include:

PBS Teacherline Southeast

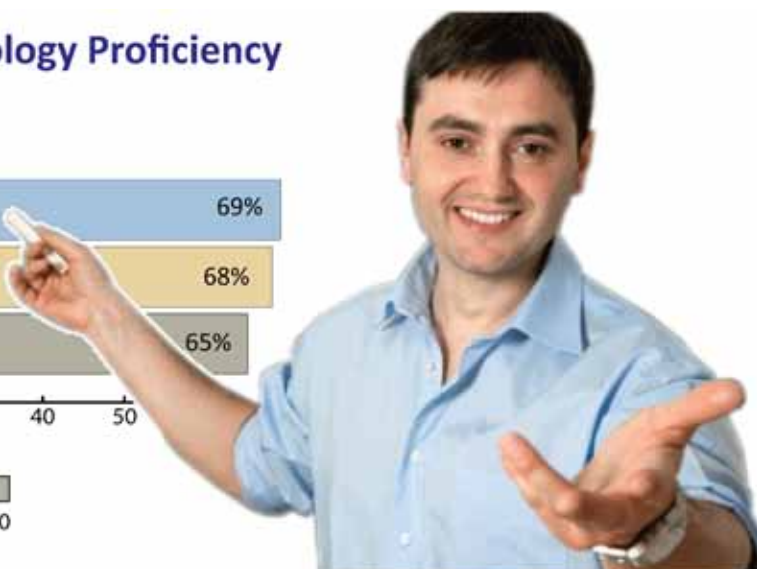
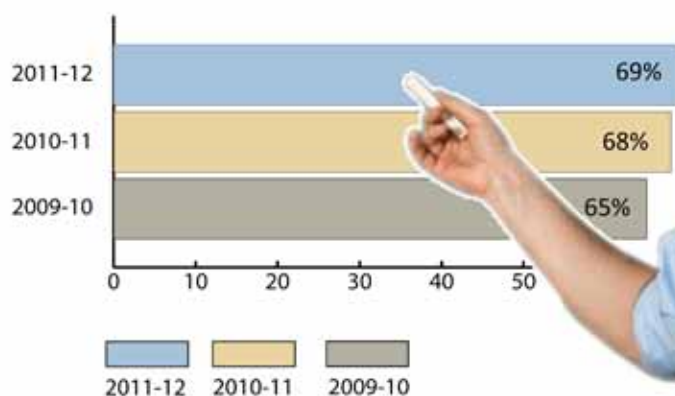
SCETV is a course provider of PBS Teacherline, an outstanding resource offering online graduate level professional development courses for teachers throughout South Carolina, Georgia and North Carolina. Through these courses, Teacherline strives to help educators acquire the skills they need to become – and stay – the highly qualified teachers needed to prepare students for a successful future.

During FY 2011-12, SCETV staff presented at 14 conferences and provided teachers 650 different PBS Teacherline graduate course seats for a total of 23,640 instructional hours. During this time, the ETV operated Teacherline Web site generated over 24,000 visits by 18,581 unique visitors for a total of 62,890 page views with 6,326 returning visitors.

Certified Staff & Student ePortfolio System

One of the highest priorities for South Carolina – or any state for that matter – is to prepare its students to become effective and productive citizens in the 21st century. In order to help make this effort a reality, the South Carolina Department of Education (SCDE) developed the ePortfolio system in 2004. The system is designed to provide easy to use tools for diagnosing technology abilities, prescribing resources and training

ePortfolio Staff Technology Proficiency



to improve technology skills and enhancing learning via an electronic portfolio format for students, teachers and administrators.

This system offers a number of benefits ranging from guiding the implementation and integration of technology to improving student learning and promoting communication between the home and school to facilitate parental involvement.

South Carolina's ePortfolio system requirements have proven to be immensely beneficial to teachers and students alike and have produced a number of positive outcomes. Through the use of this system, teachers are succeeding in improving students' real world writing skills by using e-mail and photo stories to collaborate with other students from around the world, while also using science probes and graphing calculators to analyze and solve real world problems. In addition, early childhood educators are learning how to use educationally sound software and age-appropriate Web sites to effectively enhance early childhood classroom instruction.

As a result of this successful project, the technology expertise of South Carolina's teachers and students has improved dramatically.

During the last school year, the number of certified staff assessed increased to over 38,000 while the number of 8th grade students assessed increased by 20 percent, to a total of over 61,000. In addition, the number of 8th graders rated at a proficient level increased by two percent. This improvement in teacher skills, combined with the ePortfolio student tools, has led to a measurable improvement in student technology proficiency results and academic achievement.

Technology Coaching

In order to assist with technology-related professional development, the K-12 School Technology Initiative has provided funding to support the SCDE Technology Coach pilot project, a program that has placed trained technology coaches in schools with the highest need. Each district's instructional technology coach is responsible for assessing

the proficiency level of their teachers and utilizing the tools provided through the ePortfolio System. Technology coaches provide training for teachers and review teacher portfolios that include sample lesson plans indicating increased technology integration across the core content areas in alignment with the state academic standards. Technology coaches also have the responsibility for designing staff development plans for those teachers not at the technology mastery level while also providing the training necessary to achieve this technology proficiency classification.

Technology coaches hired by the state's school districts must be certified teachers and have a high level of technology expertise as it relates to teaching and learning. At a minimum, their technology proficiency has to be on the mastery level as measured by the ePortfolio Teacher Technology Proficiency assessment system. During the 2009-10 school year, the ePortfolio assessment was rewritten in order to align it with the 2008 International Society for Technology in Education (ISTE) Standards for Teachers, with an emphasis on collaboration, communication and digital literacy. During this rewrite, the student ePortfolio assessment questions were also updated to address the 2007 ISTE/National Educational Technology Standards (NETS).

During the 2011-12 school year, approximately 27,000 teachers reached the proficiency technology level, meaning they can now assist their

peers in fully integrating technology into the curriculum area. An increase in technology proficiency levels and technology use in the classroom are two of the more visible results of this technology coaching project. Overall, it must be said that South Carolina's school districts recognize the need for teacher technology literacy, which in turn can assist students with improved achievement and improved test scores in academic core content subjects.

ETV Teacher Training

It is vitally important to the success of the state's K-12 education undertaking that teachers be as well-equipped as possible. This goal, accomplished in part through pre-service and in-service training, is necessary when dealing with the intense demands of lesson development and delivery, advancements in educational technology and accurate assessment of teaching and learning outcomes.

One resource designed to assist in this effort is SCETV's OnePlaceSC educational portal.



Supported by the K-12 School Technology Initiative, OnePlaceSC allows teachers to use a single Web sign-on to search for quality educational content from a wide variety of sites including Knowitall.org, StreamlineSC, Public Broadcasting Service (PBS) Teachers and Kids, Annenberg and Teachers Domain.

SCETV also contributes to developing and maintaining teachers' and administrators' professional capacity through online, on-demand professional development content as well as through an energetic program of face-to-face training in K-12 instructional technology and administration.

SCETV's Educator+ Web site, which is part of the Knowitall.org educational portal, provides a wealth of video-on-demand resources for all phases of K-12 professional development. Educator+ combines up-to-date content from such sources as PBS TeacherLine, the U.S. Department of Education, SCDE, major university education faculties and other sources, to provide educators with a convenient topical index to locate the information they need quickly and efficiently. Many of these resources may also be accessed through SCETV's OnePlaceSC Web site.

SCETV works with individual schools, school districts and with the SCDE, to provide intensive, hands-on training in the use of advanced classroom educational technology and SCETV's cutting-edge digital, curriculum standards-based content. Through its school and district-level in-service training, as well as through statewide Technology Training Workshops, SCETV has trained over 3,956 educators to make better use of advanced K-12 classroom technology and SCETV's excellent digital educational resources, such

as Knowitall.org and StreamlineSC.

DISCUS and StudySC Professional Development

The South Carolina State Library offers technology integration professional development opportunities for teachers, counselors, librarians and media specialists through a variety of means including DISCUS and StudySC site workshops, conferences, instructional fairs, technology forum exhibits, presentations to the South Carolina Independent School Association (SCISA) and various home schooling associations as well as classes taught at the University of South Carolina's School of Library and Information Science. These professional development offerings are designed to familiarize educators with the electronic resources available to them and the entire K-12 community for research and homework help.

As a result of the extensive evaluation project conducted this year, there was a focused effort during the latter part of FY 2011-12 to provide educators with professional development opportunities designed to familiarize them with the new electronic resources available to the K-12 community during the upcoming academic year. To this end, 33 training events showcasing the new resources were delivered over a period of four months, 11 of which were conducted online.

Overall, during Fiscal Year 2011-12, 81 professional development opportunities were offered to K-12 educators, including 39 online. A total of 986 educators attended these professional development offerings.

Instructional Capacity

South Carolina Technology Plan Goal:

Use current and emerging technologies to create learner-centered instructional environments that enhance academic achievement.

Partnership Efforts to Support the Goal:

A generation ago, classroom instructional capacity was gauged by whether there were enough textbooks for students and whether the teacher had properly devised lesson plans. Today, educators can access and include in their instructional strategies rich media resources such as interactive simulations, streaming video and even digital textbooks and materials. Whereas once, “audiovisual support” of lesson plans might be something that learners experienced only in the classroom and only two or three times each semester, today’s teaching/learning continuum is characterized by daily support via online and other digital content.

Teachers and learners no longer access this content solely in the classroom, but instead, in a variety of settings including in the school’s media center, the cafeteria, libraries or from home. It is critical that a sufficiently robust IT infrastructure exists to support the standards-based learning content supplied by South Carolina ETV, the South Carolina State Library, the South Carolina Department of Education and other sources.

The K-12 Technology Initiative Committee’s partners have made tremendous strides in their efforts to help achieve these goals through a variety of successful programs. Such programs include:

Digital Education Service Centers

One means of achieving this goal is through the use of South Carolina Educational Television’s (SCETV) Digital Education Service Centers. Foreseeing the need to transition the delivery of educational content from older technologies, such as terrestrial microwave and satellite, to an Internet Protocol (IP)-based system, SCETV has begun deploying a series of Digital Education Services (DES) systems in districts throughout the state. These systems function as media distribution servers within each district’s wide area network (WAN) and allow frequently used educational material to be cached within the network so that when used, the content does not tie up scarce and valuable Internet connection bandwidth.

The local media server associated with DES also allows for enhanced local management of educational media assets provided by SCETV, the South Carolina Department of Education (SCDE), South Carolina State Library, Public Broadcasting Service (PBS) and many others. In addition, the DES concept also allows for educational content developed within the district and its schools to be uploaded through MediaShare and made available across SCETV’s statewide educational network to directly benefit other districts and schools.

Thus far, DES systems have been installed in 73 of the state’s 81 school districts with systems compatible to ETV’s. Once the full DES system is extended to all the state’s K-12 school districts, it will provide a scalable educational content delivery system that can meet the state’s needs well into the future.

Support Capacity

South Carolina Technology Plan Goal:

Expand and support technology resources to assist educators and learners in attaining 21st century skills and meeting state academic standards.

Partnership Efforts to Support the Goal:

In today's K-12 educational environment, with its complex funding landscape and multiple layers of accountability, the capacity to quickly and accurately record, retrieve, analyze, report and act upon data related to student outcomes and demographic profiles is mission critical. However, it is also essential to ensure that the protocols and processes for collecting, safeguarding, analyzing and reporting such data is uniform system-wide.

This need dictates an enterprise student information system that is sufficiently powerful enough to deal reliably with vast and constantly-updating stores of data. In addition, such a system must be agile and intuitive enough to provide a flexible and effective day-by-day management tool for administrators and educators.

An enterprise data management system on this scale, such as the PowerSchool system currently being implemented by the South Carolina Department of Education (SCDE), necessitates a robust, high-speed, high-reliability and high-capacity network.

The K-12 Technology Initiative Committee's partners have made tremendous strides in their efforts to help achieve these goals through a

variety of successful programs. Such programs include:

PowerSchool

A tremendous asset in the effort to support this goal is SCDE's PowerSchool student information system. PowerSchool has proven to be a substantial upgrade from the former system, Schools Administrative Student Information (SASIXp), and allows for the tracking of students from initial registration through the time they leave the SCDE system. This enhanced ability allows for more accurate reporting of student data including free/reduced lunch status, prior performance and a wealth of demographic information.

Upcoming SCDE plans involving PowerSchool include the longitudinal mapping of students through their unique PowerSchool ID in an effort to better understand teacher quality and practices for improving student outcomes.



Expansion of Broadband Infrastructure

In 2010, the South Carolina Budget and Control Board's Division of State Information Technology (State IT) began taking the steps necessary to redesign the South Carolina Information Network (SCINET) – also known as the State Network – in an effort to allow public school districts and library systems to further deploy Metro Ethernet or direct fiber platforms.

As a result of these actions, additional fiber-based broadband connectivity and decreased state

network cost have been achieved. Today, all districts and library systems have fiber based connectivity for Internet access and for connecting schools to their district offices with the exception of four school districts that have wireless wide area network (WAN) connectivity. These are in the process of



being converted to fiber based service. The availability of fiber enables quick upgrades and reduces cost over time.

Internet and Network Connectivity

As the technology needs of the educational system in South Carolina have grown, State IT has made a number of changes in the design of private-side wide area networks in order to

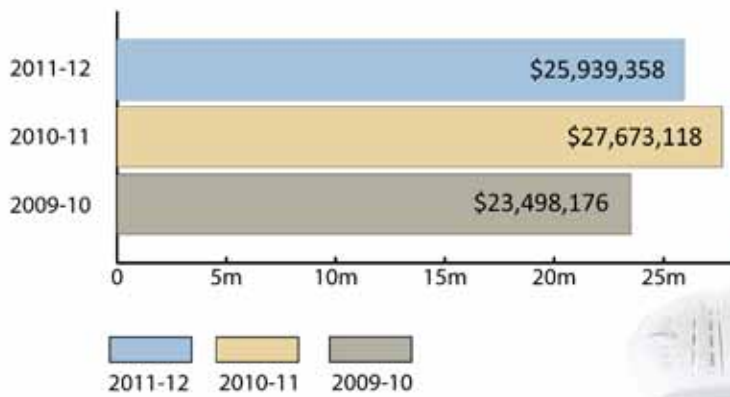
“100 mbps? How do we sign up!? 100 mbps? I went screaming down the hall to the superintendent and almost did a cartwheel!”

take advantage of new telecommunications technologies that deliver increased bandwidth to the schools and libraries of the Palmetto State. Statewide bandwidth requirements have grown exponentially since the statewide network was created during the late 1990s, as the original local bandwidth provided to schools and libraries was 64 Kilobits (kb) with a T-1 link to the Internet at each district.

In May 2012, State IT and its fellow K-12 School Technology Initiative partners took actions to address the statewide bandwidth concerns by announcing a new bandwidth allocation policy. This new policy states that each of the school districts in South Carolina will have at least a 100 Megabit direct Internet access (DIA). The new bandwidth allocation policy deployment for wide area network (WAN) links from all schools to the district office is over 100 Megabits (except where local facilities do not allow this speed) with many at 250 Megabits or higher.

However, even with this increase in minimum

E-Rate Consortium Application Funding



bandwidth access, many of the state's school districts are still requesting additional Internet bandwidth to support the evolution of the K-12 Public Education infrastructure as learning platforms are moving expediently to a technology-rich environment. This is an issue being faced by all institutions nationwide.

Library systems throughout the state currently have at least a 10 Megabit Internet connection, and the majority of these are predicted to be upgraded during the 2012-13 school year in order to serve the over 6,400 computers used statewide by library patrons to access the Internet.

E-Rate Program

State IT is also responsible for the administration of federal E-Rate program activities in the state for schools and libraries participating in the K-12 School Technology Initiative. Administrative functions in this area include the preparation and filing of the annual E-Rate application for network connectivity – which is essential in providing Internet access to all state public schools and

libraries – as well as assisting individual school districts and libraries with their own E-Rate applications.

Such assistance is provided through the K-12 School Technology Initiative Web site and consists of current program news, resources and deadlines. Additional assistance is provided through a series of live training sessions held in multiple locations throughout the state.

As part of this program, State IT files for the reimbursement of approved E-rate funding requests and administers the funds in addition to those appropriated by the K-12 School Technology Initiative. The financial resources received through these sources are used to pay the vendors responsible for supplying Internet service and network access to connect public schools and libraries. These networks meet a number of local needs and connect the schools and libraries to a central hub point which, in turn, links each site to the Internet and access to numerous state resources.

The support offered by the E-Rate program is essential for the implementation of online learning, enabling computer-based assessment and providing data and analysis tools to the schools and libraries of South Carolina.

Bandwidth Monitoring Program

In an effort to ensure that connectivity and Internet bandwidth are best being used to serve the state's educational needs, the K-12 School Technology Initiative Committee has implemented a service offered by State IT to provide security and monitoring of the Internet bandwidth utilization.

As part of this service, State IT assists school districts with the detection, prevention and handling of security breaches and virus attacks, as most districts do not have sufficient resources to manage this ever increasing threat.

Since the implementation of this effort, State IT has deployed cyber-sentry servers in each of South Carolina's K-12 public school districts, as well as in several charter schools and public libraries.

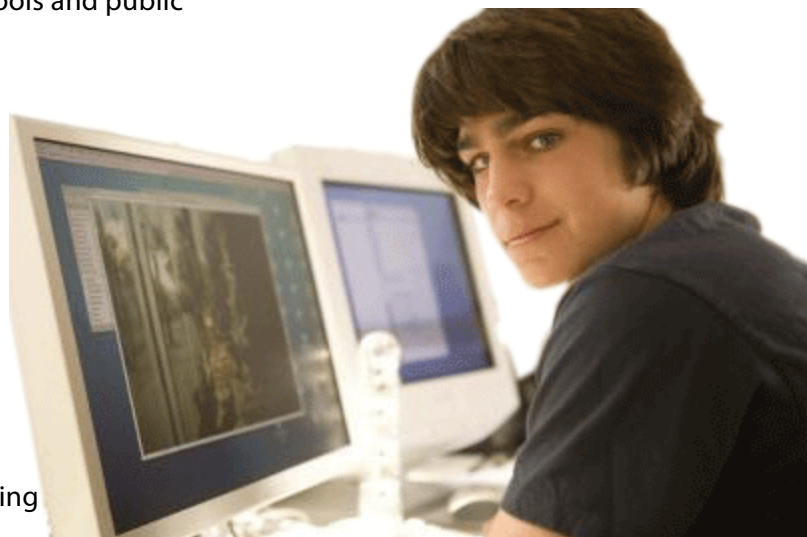
"The need for ensuring the privacy and protection of students, teachers, and information alike in the K-12 community is job one. Ensuring that networks are serving the educational needs of each district is challenging to say the least, however, by joining together – with the districts taking

the lead – we have been able to accomplish much more together than any one district could hope to by themselves," stated James MacDougall, the state's Chief Security Officer.

K-12 School Technology Initiative funds will continue to play a vital role in sustaining and refreshing South Carolina's technology in order to maintain hardware, software, connectivity and infrastructure. Technology in the classroom must be regularly updated or replaced in order to remain an effective tool for learning.

K-12 School Technology Initiative funds will continue to play a vital role in sustaining and refreshing South Carolina's classroom technology.

Unfortunately, according to Education Week Magazine, South Carolina is one of many states with no plan or mechanism to regularly update technology. As additional financial resources become available, addressing this must be a future priority.



Conclusion

In today's K-12 learning environment, bandwidth is the fuel that drives the machine forward and digital educational content and administrative services enabling data-driven decision making are the cargo carried by the machine. As South Carolina's K-12 school districts and libraries continue to integrate digital technology into classroom and out-of-classroom learning, the demand for increased network and Internet bandwidth increases exponentially.

The K-12 School Technology Initiative has taken advantage of improvements in technology and reductions in the unit cost of bandwidth, along with an active monitoring of educational networks for efficiency and appropriate use, to continue to meet district and library bandwidth needs with reduced funding.

Today, though, the percentage of the Initiative's total budget allocated for funding bandwidth increases has reached dangerously unsustainable levels, as budgets are cut overall. Increased funding to support bandwidth needs, infrastructure and educational content is urgently needed to ensure that South Carolina can continue to educate those who must enter tomorrow's high-technology workforce.

Among the pressing budgetary concerns of the state, the active development of a K-12 educational system that can attract and justify increased economic development and investment in the digital era must surely be a priority.

What's at Stake?

Education in South Carolina...

81

K-12 School Districts in SC

145

Branch Libraries in SC

1,230

Public Schools in SC

46,980

Public School Teachers in SC

723,143

Public School Students in SC

4,625,364

Total Population in SC

1

South Carolina

Appendix A – Milestones

1996

- The South Carolina General Assembly created the K–12 School Technology Initiative.
- The K–12 School Technology Initiative began funding two-way video projects across South Carolina.

1997

- The K–12 School Technology Initiative distributed over \$12 million to state districts for local technology implementation.
- South Carolina Educational Television (SCETV) began digitizing its video resources for use in schools.
- South Carolina was recognized by the Educational Testing Service as one of five states to provide telecommunications access in all schools.

1998

- South Carolina received over \$26 million in E-Rate funding.
- South Carolina strongly encouraged districts to adopt the International Society for Technology in Education’s National Educational Technology Standards for Students (ISTE NETS-S) and National Educational Technology Standards for Teachers (ISTE NETS-T).
- By 1998, South Carolina invested more than \$84 million in hardware, software and professional development opportunities or schools and districts.

- The K-12 School Technology Initiative began distributing funding for professional development in technology as well as technology implementation to districts, sending over \$16 million in total funding to districts statewide.
- 86% of South Carolina’s schools were equipped with satellite dishes in order to receive education programming, compared to a national average of 29%.
- 67% of South Carolina classrooms were connected to local-area computer networks (LANs), compared to 53% nationwide.
- Technology Counts ‘98 reported that South Carolina was one of only five states in the nation to provide Internet access to 100 percent of its schools.

1999

- South Carolina, an E-Rate leader, received over \$42 million in funding.
- The South Carolina State Library’s DISCUS Web site became available.
- The new electronic student-information collection system, Schools Administrative Student Information (ASIXp), was provided free to all districts.
- 100% of all state K-12 schools have digital satellite reception.

2000

- South Carolina E-Rate funding continued to climb to over \$52 million.
- State K–12 appropriations for educational technology funding

Appendix A – Milestones

increased to over \$40 million.

2001

- The South Carolina General Assembly passed the Teacher Technology Proficiency Proviso, requiring districts to verify that teachers demonstrate technology proficiency during each recertification cycle.
- South Carolina received \$44,280,175 in E-Rate funding.
- The K-12 Partnership provided \$400,000 of funding, for technical training for district's technology support personnel.
- SCETV's Knowitall.org Web portal was officially launched.
- SCETV's Distance Education Learning Centers were operational in all school districts.
- The K-12 School Technology Initiative provided over \$18 million in flow-through funding to districts for local technology and training.
- The South Carolina Education Oversight Committee (EOC) issued its long-range planning document, citing technology use as necessary for South Carolina to reach its 2010 goal of being ranked in the top half of states nationwide with regard to student achievement.
- ETV American Graduate, a public media initiative funded by the CPB, helped SC communities find solutions to address the dropout crisis.

2002

- K-12 School Technology Initiative funding decreased from a high of \$40 million in 2001 to a five-year low of \$19 million.
- South Carolina strongly encouraged its school districts to adopt the International Society for Technology in Educations (ISTE) National Educational Technology Standards for Administrators (NETS-A).

2003

- All state school districts were fully implemented and running SASIxp.
- The Division of State Information Technology filed the calculations for all schools and districts for the E-Rate Discount Program, resulting in over \$49 million for the state and school districts in discount payments.
- K-12 School Technology Initiative funding provided Intel Teach to the future classes to educators across the state.
- The South Carolina Department of Education released its Technology Plan, 2003-08: Realizing the Dream, to all South Carolina stakeholders.
- K-12 School Technology Initiative funding supported 30 Technology Coaches.
- SCDE's Office of Technology released a new SASIxp template and the Data Collections Manual, initiated quarterly collections and began to rely on the new

Appendix A – Milestones

South Carolina Educational Data System (SCEDS).

- SCDE's South Carolina Online Professional Development, now known as eLearningSC, was officially launched.
- A new Training Teachers in Technology (T3) professional development CD-ROM entitled "The Nature and Needs of Gifted and Talented Students" was offered to districts.

2004

- SCDE's ePortfolio project pilot was launched to assess teacher technology proficiency and to provide information on professional development offerings.
- SCETV's Internet video-on-demand service, StreamlineSC, was officially launched.

2005

- The South Carolina Legislature called for a feasibility study to investigate computer-based assessment in the state.
- SCETV's StreamlineSC reached 100% of the state's K-12 schools and had 1.3 million views within its first full year of operation.

2006

- The South Carolina Virtual School pilot was officially launched by the SCDE.
- SCETV's Knowitall celebrated its 10 millionth hit.
- SCETV's Knowitall launched two new sites, Knowitall Healthy! and Road Trip!

2007

- The State Library's DISCUS launched its new Web site featuring Web 2.0 technology.
- The State Library began the implementation of SchoolRooms, an online multimedia discovery place for the K-12 community.
- The K-12 School Technology Initiative approved the implementation of a service offered by State IT to provide security and monitoring of K-12 Internet bandwidth usage.
- SCETV was able to procure a 1.94 Million dollar grant that begins SCETV's transition from analog video over microwave delivery of educational content to a streaming media delivery in 33 of 85 school districts.(Phase 1 IP Initiative).

2008

- SCETV launched OnePlaceSC, its newest K-12 education Web portal.
- SCETV launched Digital Education Services (DES), an upgraded service of the Distance Learning Education Centers (DEEC), designed to transition existing analog and digital broadcasts to live and video streaming on-demand systems.
- SCETV re-engineers media delivery systems in a manner that greatly reduces the cost from \$250k (approximate) to 55k – this enables many districts to include the system in their new school construction costs.

Appendix A – Milestones

- SCETV streams live both ETV radio stations enabling the radio stations to be added to the ONEPLACESC programming guide lineup and for the general public to listen to ETV Radio on the Internet.

2009

- SCDE released the State Technology Plan for 2009-13.
- The State Library's DISCUS program launched SmartSearch, enabling the retrieval of information from multiple sources through a single "Google-like" search.
- The State Library's DISCUS program implemented IP geolocation technology through SmartSearch, thereby allowing students to be recognized as being in South Carolina and automatically granted access without the need for usernames or passwords.
- The State Library added a number of career and workforce development products to DISCUS including Ferguson's Career Guidance Center, LearningExpress Library and the NetLibrary Career eBook collection
- The State Library launched the StudySC.org Web site, a resource designed to provide online links and multimedia content for homework help, project assistance and classroom use.
- The State Library received a Presidential Citation Award from the South Carolina Library Association in recognition of ten years of DISCUS, South Carolina's Virtual

Library.

- SCETV's StreamlineSC video-on-demand service had 3.16 million views during the 2009-10 school year and the highest per-teacher video-on-demand usage of any such service in the US.
- SCETV's Knowitall portal had 6.01 million views in FY 2009-2010.
- SCETV's Web of Water site, part of Knowitall, was awarded a Corporation or Public Broadcasting MySource Education Innovation Award in March of 2010.
- SCETV's Digital Education Services (DES) systems were implemented in 44 of 85 state K-12 school districts.
- SCETV added new content to several of its most popular Knowitall.org Web sites, including Artopia, RiverVenture, Generations of Heroes, GullahNet, Educator+ and Career Aisle.
- State IT filed E-Rate applications for network connectivity costs of \$22.7 million in eligible services in 2009-10 and received federal E-Rate reimbursements of \$13.8 million.
- The K-12 School Technology Initiative, in conjunction with State IT, developed version 4 of the Internet policy, designed to ensure the equitable use of available funds to supply sufficient Internet bandwidth to all districts.
- SCETV is able to procure a 1.4 million dollar grant through an agreement with SDE. The ARRA grant monies would be used to add an additional 26 School districts to districts viewing all media via

Appendix A – Milestones

ETV's IP Media server technologies.

- SCETV now has 73 out of 81 school districts receiving all district televised media via streaming Media Server constellation.

2010

- ETV's website "Web of Water", received the nationally prestigious Corporation for Public Broadcasting (CPB) "Innovation in Education Award.
- The State Library's DISCUS Program implemented essentially 5 new products as Gale migrated the content of five of their Resource Centers to the new In Context interfaces. The products are Biography In Context, Opposing Viewpoints In Context, Science In Context, U.S. History In Context and World History In Context.
- The State Library and DISCUS focused on providing promotion, training and outreach for the DISCUS Job and Career Resources to adult educators and school counselors. These products include Ferguson's Career Guidance Center, LearningExpress Library and the EBSCO Career eBook Collection.

2011

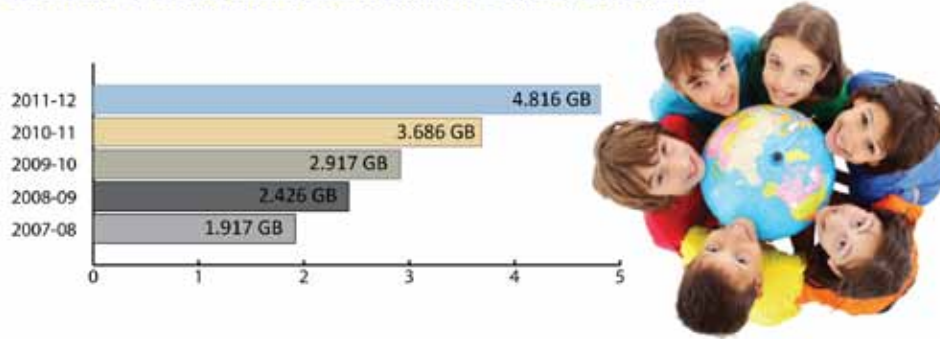
- ETV begins offering the new PBS Learning Media service.
- SCETV finalizes the EBS (Educational Broadband System) transition from 67 four-channel groups to a streamed down single channel per group (EBS mid-band) dedicated to transmitting

ITV programming for all state school districts.

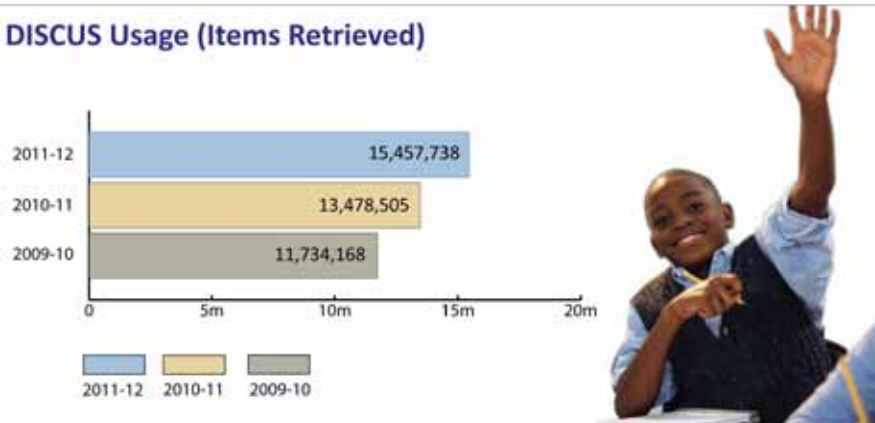
- SCETV develops and institutes an agreement to migrate all StreamlineSC content to the constellation of IP Media servers, allowing all school districts to have a Streamline server on their internal Ethernet network. The higher capacity storage also enables the districts to have access to the entire StreamlineSC asset library.
- Through a CPB American Archive Content Inventory Project grant, ETV inventoried over 100,000 physical and electronic assets and compiled a database of metadata that ETV will be able to access for educational and documentary projects.
- DISCUS and the State Library conducted an extensive evaluation project during much of FY 2011-12 resulting in a new collection for FY 2012-13. It will retain many of the most heavily used products while adding much needed content in other areas.
- The State Library forged a partnership with PASCAL (Partnership Among South Carolina Academic Libraries) which has helped to provide a richer array of resources utilizing combined funding efforts.
- K-12 School Technology Initiative Committee engages State IT to implement a security and bandwidth monitoring program to improve efficient use of network resources and to assist with identifying security risks.

Appendix B – Charts

Growth of Bandwidth Demand in School Districts



DISCUS Usage (Items Retrieved)



StreamlineSC Utilization (Items Viewed)

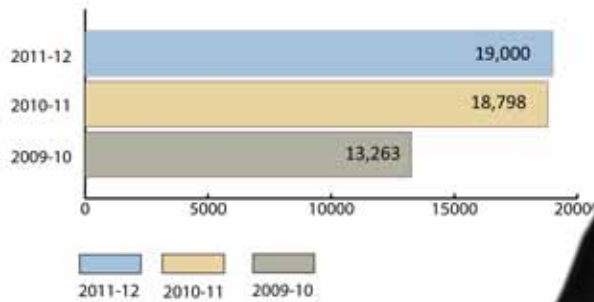


Appendix B – Charts

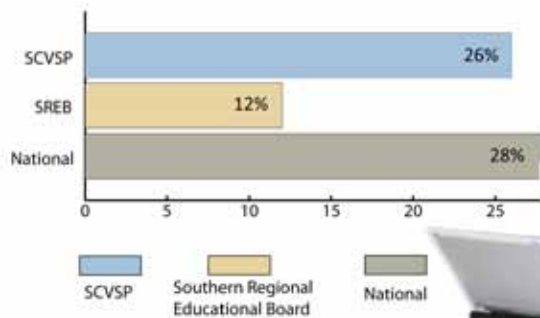
Knowitall Utilization Comparison

	2009-10	2010-11	2011-12	% Incr./Decr.
Visits	989,023	717,477	911,837	+ 21%
Page Views	6,010,566	4,474,721	4,073,747	- 9%
Unique Visitors	643,390	497,080	783,816	+ 37%

S.C. Virtual School Program Enrollments

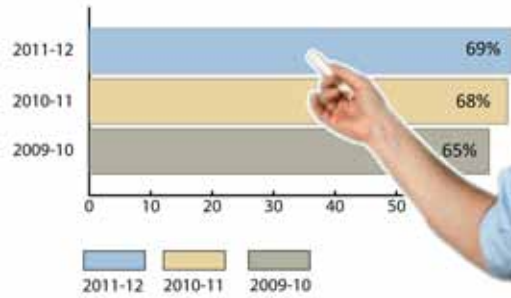


2011-12 Virtual School Growth Comparison

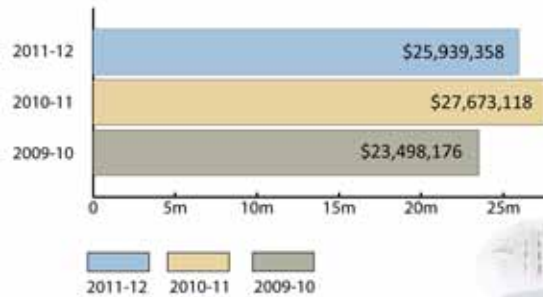


Appendix B – Charts

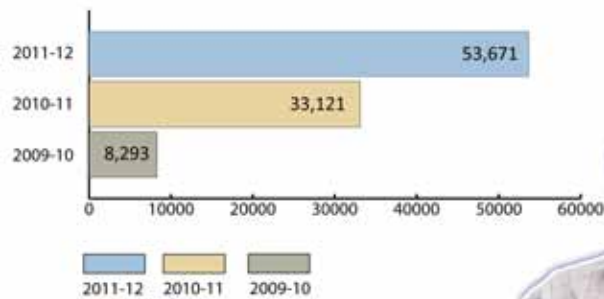
ePortfolio Staff Technology Proficiency



E-Rate Consortium Application Funding



StudySC (Visits)



Appendix C – What Others Are Saying

DISCUS

- “My 5th are building confidence in their research skills through DISCUS.”
(Amanda Cox, Beech Springs Intermediate)
- “With the increasing cost of print materials and a shrinking budget, DISCUS provides resources our school would not be able to afford.”
(Susan McNair, Lugoff Elgin High School)
- “Awesome! We are using many, many resources. Love it!”
(Malynda Young, Aiken High School)
- “My 3rd grade teachers use both DISCUS and StudySC and are so grateful for them!”
(Ellen Bunch, Hendrix Elementary 1B World School)
- “4th and 5th grade users are wowed by how much DISCUS has to offer.”
(Kelly Knight, Fork Shoals School)
- “So helpful to have so many great resources available in one place. Teachers love it.”
(Marian Scullion, Forest Lake Technology Magnet School)
- “It is a great set of resources that offer quality information in one place. Love it!”
(Lindsay Insalaw, Lakeview Elementary School)
- “It’s the first place my students look when doing research. Also it allows me to use library funds for other needed items.”
(Mary Anne Gibson, Hunt Meadows Elementary School)
- “It’s our “go-to” when we don’t physically have the print resources.”
(Robin Clinton, York Comprehensive High School)
- “It has provided free, truthful resources for my students to research.”
(Rene Howell, W.J. Clark)
- “My students know that they can get reliable information from DISCUS.”
(Mica Brakefield, Clover High School)
- “DISCUS has a wealth of information for which I am very thankful.”
(Charity Kambeitz, Home Schooling Parent)

StudySC

- “This is a great resource that I will use throughout the school year. Thanks again for all of your hard work to create a resource that is so attractive and user friendly!”
(Paula Canine, Waccamaw Elementary School)
- “Students are able to use StudySC to learn about indigenous groups, products and historical figures from the Elementary grade level. The 3rd graders and teachers were

Appendix C – What Others Are Saying

able to complete research for colonial projects and to learn about Francis Marion in a video form. It appealed to multiple learning styles.”

(Angela Durham, Windsor Elementary School)

StreamlineSC

- “StreamlineSC is such a wonderful and useful tool. Technology is such an important aspect of everyday life in a classroom, and it is amazing how easy this resource can make using it to the fullest. My sincere thanks to SCETV for making this possible for us! Without it, I’d be stuck for hours searching the Internet for something that I may or may not be able to use in the classroom.”

(Sarah Landers, Coastal Carolina University, Elementary Education Dept.)

ETV American Graduate

- “American Graduate is a clear example of what public television does in terms of creating a forum and giving out positive information about something that is really useful to the American public.”

(SC Rep. Jerry N. Govan, Jr.)

SCETV Training

- “South Carolina educators are so lucky to have access to your training and all that ETV provides. I truly appreciate your coming to our school.”

(Donna Roberts, McDonald Green Elementary School)

- “I’m continually trying to become more technologically savvy to keep my lessons fresh and engaging for students. You all have helped me to do that!”

(Judy Whitesell, GES - 3rd Grade- Science/S.C. History)

Teacherline

- “I teach early childhood and I would do something at night in my (Teacherline) course and then go back the next day and try it on my kids and they loved it. I would get the first-grade teacher across the hall and we’d join together and do a lesson I learned together. I’d be teaching the other teacher and teaching the kids at the same time. I loved it.”

(Deborah Seyffert, Slater-Marietta Elementary)

New Bandwidth Policy Reactions

- “100 mbps for all districts? Yay! This is like Christmas for our district!”

(Tom Taylor, Spartanburg 5 School District)

- “100 mbps? How do we sign up!? 100 mbps? That’s the new baseline, right? I went screaming down the hall to the superintendent and almost did a cartwheel!”

(Jay Lindler, Lexington 4 School District)

Appendix C – What Others Are Saying

- “I know that most schools in most states of the union have to fend for themselves for internet connectivity. We are privileged that our state provides this. I think I speak for all public school districts in S.C. in that we are blessed and fortunate to have such an advocate as you. We appreciate your efforts and progress, and service to our students.” *(James Renolds, Greenwood 51 School District)*
- “This is great news. It feels almost like Christmas. Thank you for your efforts along with the K-12 Committee and everyone else involved.”
(Donnie Elder, Spartanburg 3 School District)
- “Thank you, the K-12 Committee, and all your colleagues! You made my day!”
(Wally Meggs, Laurens 55 School District)
- “This new bandwidth policy is awesome. I read it about ten times to make sure I read it correctly.” *(Robert McIntyre, Dillon 3 County School District)*

