South Carolina K-12 School Technology Initiative 2009 Progress Report

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# **EXECUTIVE SUMMARY**

As the first decade of a new millennium ends, our public, private and alternative schools are educating a population of learners who have never experienced a world without cell phones, text messaging, laptop computers, the Internet, cable and satellite television, music and video streaming, Google, Facebook and Wikipedia. Modern educational technology can no longer be dismissed as a "fad" or a "frill," nor can its impact on the fundamental task of teaching basic curriculum skills to children be denied. This is due to the fact that technology is no longer simply an alternate means of carrying information to learners.

Technology, both the delivery infrastructure and the educational content it carries, is an integral part of the cognitive vocabulary of younger learners. It is how they process information, assign meaning and construct and share knowledge. Just as it would be impossible to teach children in France without learning and

using the French language, it is impossible to educate today's digital natives (those born into the digital world to which the rest of us have immigrated) without learning and using the T-1 Internet Protocol (IP) networking capability. Realized through a series of partnerships between state government, the educational community and private telecommunications companies, this advanced (for its time) IP infrastructure drove tremendous innovation in the fields of interactive K-12 learning content development, and in the field of data-based student assessment and district administration.

The South Carolina Department of Education, South Carolina Educational Television and the South Carolina State Library all responded to the existence of this state-of-the-art network backbone to deliver cost-effective and powerful learning and administrative tools to students, teachers, administrators and parents. The South Carolina Budget and Control Board's Division of State Information Technology and partner telecommunications vendors combined to grow, accelerate and secure the statewide K-12 network as funding allowed.

"Like a state-of-the-art superhighway, an educational network must be expanded and made more efficient over time in order to keep pace with increased traffic."

technological "language" appropriate to their culture and mindset. This is nearly impossible unless enabled by robust financial support for K-12 educational content, infrastructure and professional development.

Ten years ago, the state of South Carolina, in a series of bold, innovative initiatives, positioned itself at the forefront of K-12 education by connecting all of its schools and districts with

Unfortunately, however, during the last decade the provision of funding has fallen behind the rapidly expanding need for connection bandwidth to enable effective and efficient learning in the digital age. Higher quality interactive and streaming video content and powerful, but bandwidth-intensive, administrative applications connecting schools and districts to the South Carolina Department of Education vie for limited space within the educational network pipeline. Like a state-ofthe-art superhighway, an educational network must be expanded and made more efficient over time in order to keep pace with increased traffic.

Today, South Carolina's K-12 educational network backbone, once the envy of many other states, has lost its place on the crest of the technological wave and is struggling to keep up with shifting patterns of educational technology use in our schools. Regaining momentum in this area – which is critical to assuring a high-quality education and the development of a valuable 21st Century technologically astute workforce in South Carolina – will necessitate a return to the more ambitious K-12 school technology funding levels of a decade ago.

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 including 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 the state's schools need for software, hardware, connectivity, digital content, instructional technologies and professional development.

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.

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## 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:

In spite of the multi-layered framework of administration, instructional capacity, physical and support mechanisms provided by the modern K-12 educational system, the fact remains that learning occurs at the point of interface between the mind of the student and curriculum content designed to create a positive shift in the student's awareness, understanding and ability to apply knowledge. Traditionally, the classroom teacher – supplemented by textbooks, audiovisuals, and some laboratory exposure – has been the primary agent in creating and driving the learning environment for K-12 students. In the digital world of K-12 learning practice, the role of the teacher is obviously still central, but that role has undergone, and will continue to undergo, major shifts in direction and emphasis.

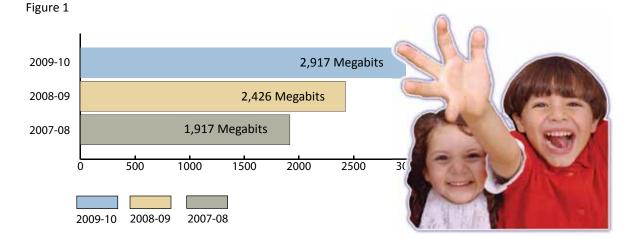
Today's K-12 teacher is expected to marshal a vast and growing collection of online and physicallypackaged interactive resources for students, as well as to successfully

manage the technology required to deploy and benefit from those resources. Students, for their part, live in a world in which instantaneous digital communication and information retrieval is no longer novel, but expected, and in which their role is not passive, but immersive and highly interactive. In this scenario, the K-12 teacher no longer serves primarily as a lecturer and source of information to essentially passive recipients, but rather a guide and enabler on a voyage of discovery. This voyage of discovery is really a student-managed exploration of new intellectual and informational spaces. If properly managed and supported by school structures, practices and technologies, and if fueled with engaging standards-based content that leverages a student's creativity, curiosity and technical capacity, solid and positive educational outcomes are produced.

The roles of technology and interactive standards-based content are critical to successful K-12 teaching and learning in the digital domain. At a purely instrumental level, computers, smart boards and the network capacity to tie them together and connect them to the Internet are necessary as conduits of standards-based curriculum content for classroom learning. However, in the digital domain, technology is also part and parcel of how students learn, and more precisely, of how

"Funding of this infrastructure is not only a prerequisite for successful learning, it's indispensible if our students are to remain competitive."

> different students learn differently. There is no legitimate division between educational content and the technology that delivers it and allows the curious mind of the student to interface and interact with the content to produce learning. So



### Growth of Bandwidth Demand in School Districts

it is not stretching a point too finely to declare that the standards-based curriculum content funded by the K-12 School Technology Initiative and the network and Internet connectivity provided through this partnership are critical to the creation of an equitable and robust learning environment for South Carolina K-12 students.

Despite having led the nation in providing nearly universal high-speed educational networking capability to its schools and districts in the late 1990s, South Carolina risks losing – and possibly has already lost – this primacy. This is due, in part, because the amount and availability of bandwidth necessary to enable the widespread use of the most stimulating educational interactive simulations and videos is increasing constantly. Likewise, the conversion of bricks and mortar school campuses into highlyconnected wireless educational networking environments requires substantially more bandwidth per student than was the case just a few short years ago.

The proactive planning and funding of this evergrowing educational network infrastructure is not only a prerequisite for successful K-12 learning, it is indispensable if South Carolina's students are to remain competitive in the national and global economies. These economies rely on the continual flow of digital data that must be managed, leveraged and shared in order to manufacture products, deliver commodities, advance science, purvey health care, elevate culture and build wealth for the state and its citizens.

The South Carolina K-12 School Technology Initiative helps support a number of partner programs and endeavors designed to assist in reaching this Technology Plan goal. Such programs include:

#### DISCUS

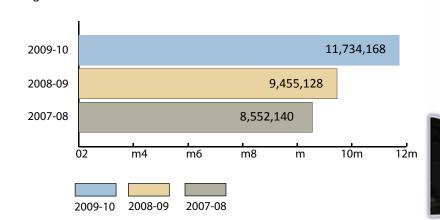
The Digital Information for South Carolina Users (DISCUS), South Carolina's virtual library, is an invaluable resource supported by the K-12 School Technology Initiative. Administered by the South Carolina State Library (State Library), DISCUS uses K-12 School Technology Initiative funds to help provide an electronic library of essential high quality information and educational resources to all state residents through schools, higher education institutions and public libraries. 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.

The accessibility of DISCUS and its user friendly design have long been key components in the overall success of the program. These qualities have been greatly enhanced this year with the addition of SmartSearch to the DISCUS platform. SmartSearch enables students to retrieve information from a number of products simultaneously through the use of a single "Google-like" search, thereby increasing the ease and effectiveness of locating needed information. In addition, SmartSearch utilizes IP geolocation technology to provide an easier method of home access. Through this utilization, students are recognized as being in South Carolina and are automatically granted access without the need for usernames or passwords.

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

- Database license costs for the 2009-10 calendar year were \$2,271,681
- If each library purchased access separately, the total cost would be over \$54 million
- All state funding for DISCUS goes directly to database acquisition
- Administration of this statewide program provides cost avoidance of over \$52 million

Through DISCUS, South Carolinians have the ability to access thousands of magazines, newspapers, encyclopedias, videos, career practice tests and more on a 24/7 basis. Since its inception over 10 years ago, there has been a continual growth in usage. The following

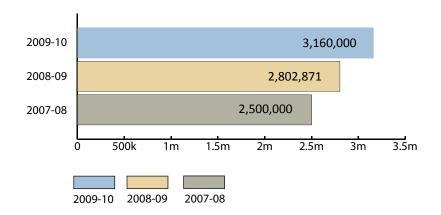




#### K-12 Technology Initiative 2009 Progress Report

## **DISCUS Usage (Items Retrieved)**

Figure 2



### **StreamlineSC Utilization (Items Viewed)**

chart highlights the DISCUS usage over time and demonstrates the program's contribution to the K-12 learning environment. In Fiscal Year 2009-10, South Carolinians retrieved 11,734,168 million items, a double digit increase over the previous year. Historically, the K-12 community has been responsible for a large portion of this amount, accounting for approximately 66-69 percent of the overall DISCUS usage.

#### **StreamlineSC**

Figure 3

In cooperation with the K-12 School Technology Initiative, South Carolina Educational Television (SCETV) offers StreamlineSC, a collection of more than 10,000 video clips that can be accessed by the state's teachers and students. Of these 10,000-plus clips, over 1,600 are produced by SCETV in collaboration with the South Carolina Department of Education's (SCDE) Instructional Television section. In addition, there are more than 1,000 instructional video clips produced directly by South Carolina's K-12 school districts, and made available to other districts through the MediaShare program. Streamline is also used by 343 private schools and 263 registered home schools in the state. In addition, teachers and students are able to view live streamed events through StreamlineSC, such as presidential addresses, education town meetings and addresses by the State Secretary of Education.

StreamlineSC, and its accompanying administrative interface, OnePlaceSC, contain various management services which allow teachers, school administrators and community leaders to track and evaluate utilization of Streamline resources in the classroom. During the 2009-10 academic year, StreamlineSC had 3.16 million views of video clips. Due to intensive training and support provided to South Carolina teachers by SCETV and SCDE staff, South Carolina had the highest per teacher usage of educational video-on-demand services of any state in the country. In fact, SCETV and Instructional Television (ITV) staff performed 494 training events providing hands-on training for 6,530 teachers during the last school year. Numerous professional development resources aiding teachers in the use of StreamlineSC are available as video-on-demand through ETV's Knowitall.org and OnePlaceSC.

### **Knowitall Utilization Comparison**

Figure 4

	2008-09	2009-10	% Incr./Decr.
Visits	597,648	989,023	+65.5%
Page Views	5,023,608	6,010,566	+19.5%
Unique Visitors	423,216	643,390	+52.0%

#### **Digital Education Services**

An IP-based content delivery channel from SCETV to South Carolina's K-12 school districts is currently being deployed to offset the anticipated loss of satellite delivery. Currently, 44 out of the 85 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 ondemand educational video clips to schools while diminishing the bandwidth load placed on the district's Internet connection. The remaining 41 K-12 districts will be equipped with DES capability as funding becomes available. Current plans call for deploying an additional 26 DES systems in the 2010-11 academic year.

#### **Knowitall.org**

Another essential 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 that 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 has also demonstrated itself to be 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 2009-10, as the number of Knowitall page views increased by 19.5 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 themselves, classroom learning objectives are being supported as well.

In fact, during the 2009-10 reporting period, Knowitall educational resources were viewed more than six 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 to assist 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 March 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.

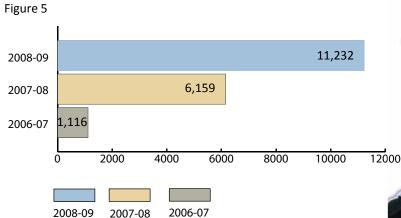
The Public Broadcasting Service (PBS) Digital Learning Library is a comprehensive source of learning objects, including video, audio, images, games and interactive learning activities designed specifically for classroom use and delivered to teachers exclusively through local PBS member stations. SCETV was invited to contribute content to the PBS Digital Learning Library Producer Pilot Project because of its record of developing award-winning, highquality, interactive digital learning media. The Digital Learning Library currently contains 87 assets from Knowitall's Artopia Web site, with more assets scheduled to be added from sites such as Hobby Shop, Gullah Net and RiverVenture.

One of the most significant changes for this award winning site centers not on content, but a more reliable and informative method for measuring utilization of content. Prior to 2009, ETV used a patchwork of measurement systems to gauge Web usage, leading to an increased potential for incompatibility and inaccurate reporting. In 2009, all SCETV Web sites began using state-of-the-art Google Analytics for measurement purposes. Because of this, SCETV is using metrics for Fiscal Year 2008-09 as a new baseline for comparative purposes. As such, correlations to pre Fiscal Year 2008-09 measurements will no longer be made.

#### StudySC.org

This year 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 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 age-appropriate state information. StudySC was created to meet this need and to support 3rd and 8th grade social studies curriculum standards.



### S.C. Virtual School Program Enrollments



Currently, StudySC has sections on South Carolina culture, environment, geography and history through 1865. There are also plans to add sections on government and history post-1866, as well as a section for educators with lesson plans and other content to support classroom activities.

The site was officially launched in March 2010, just a few months before the end of the school year. Since the official launch, StudySC.org has had 5,820 site visits.

#### **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 (SCDE) 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 or through real-time Web conferencing software.

The SCVSP is one of only 45 state sponsored

online learning programs throughout the United States. In 2009, the Center for Digital Education (CDE) conducted a national study of programs and ranked the SCVSP as the number two online learning program in the country. This ranking was based on six criteria including funding, number of students served, course loads offered, enrollment trends, K-20 ventures and licensure reciprocity. This recognition by the CDE illustrates a reality in education in South Carolina and the nation as a whole: the realities of K-12 education, as it relates to funding equity and service provision, should facilitate greater attention to online education endeavors. An analysis conducted by the U.S. Department of Education in 2008, revealed similar results, finding a significant positive correlation between online educational programs and student success versus control groups of traditional faceto-face classrooms.

In 2009-10, the SCVSP enrolled 14,207 students from a total of 85 school districts, including 82 public and state run districts, the Governor's School for Science and Mathematics, the John de la Howe School, 31 private schools, 13 charter schools and Home School Associations. Of those enrolled, 8,570 students (61 percent) remained in the class for at least 10 days, 7,262 of which completed their course of study. Of those students completing the course, 6,332 achieved a grade of 70 or above – resulting in a successful completion rate of 87 percent.

The SCVSP offers courses in seven subject areas including career and technology, fine arts, world languages, English, health/physical education, mathematics,

science and social studies. Courses at the SCVSP 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 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. Program instructors hold a variety of professional degrees including Doctoral degrees (8 percent), Master's degrees (29 percent) and National Board Certification (13 percent).

To ensure that course offerings meet SCDE assessment requirements and align to state standards, material is 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 the SCVSP are aligned at 100 percent. It is the practice of the SCVSP to evaluate all of its courses every two years. In addition to this requirement, the SCVSP will evaluate a course if it is changed to a significant degree such that its alignment may be questionable, or if the standards themselves are changed. The SCVSP evaluates all courses

"Without this program, my son would have been forced to go to school another full year for just two classes. Thank you!"

> for the South Carolina Virtual Charter School as well as the state's other virtual schools and online learning programs. For the 2009-10 academic year, the SCVSP evaluated 50 courses for its program alone. Exceptions to this are the Advanced Placement courses which are administered in accordance with U.S. Department of Education guidelines and audited by the tests' provider, the College Board.

The SCVSP used 11 full-time instructors for the September through February sessions and 10 full-time instructors for the summer session. In addition to full-time instructors, the SCVSP also uses adjunct instructors, including 54 over five enrollment periods.

## **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:

K-12 education not only takes place in the classroom, but the community as well. Learners are obviously members of the community in their own right; however, their successful education enables them to become fully functioning, contributing and productive members of society as adults. K-12 educational technology thus has a dimension that extends beyond the walls of the bricks and mortar school and helps to make South Carolina's many communities more vibrant and vital places to live, work and prosper.

#### **Knowitall.org**

South Carolina Educational Television (SCETV) provides essential information and service to the general public through a number of Knowitall.org Web sites such as 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 more important than ever 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.

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 on Career Aisle 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 that focus on the subject materials – such as math, science and technology – that underlie

"Educational technology extends beyond the walls of the bricks and mortar school, and helps to make South Carolina a more vibrant and vital place to live, work and prosper."

> 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 that is needed for general research, consumer and health issues, small business development and employment. In 2009,

DISCUS has added 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 additions included Ferguson's Career Guidance Center, LearningExpress Library and the NetLibrary 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 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.

The State Library also introduced the use of SmartSearch in its DISCUS Web site, thereby providing users with the ability to retrieve results from multiple databases through a single search. SmartSearch's geolocation authentication technology also offers South Carolinians a new, simpler method of home and office access to DISCUS resources, thereby providing

### "My goal is for DISCUS to become a verb with my students...I want them to 'DISCUS' instead of 'GOOGLE.'"

opportunities for increased community involvement. In addition, this technology provides easier access to K-12 resources for citizens regardless of the methods they choose in educating their children.

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:

The ultimate success of the K-12 educational process hinges on providing the best-trained, most highly motivated teachers possible. Today's teachers face a series of challenges to their success in the classroom, ranging from the demands of assessment and reporting to the complications of leveraging the latest educational technology effectively in their lesson plans. Members of the K-12 School Technology Initiative seek to provide training and resources for teachers in an effort to ensure better outcomes for the state's learners.

#### **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 to improve technology skills and enhancing learning via an electronic portfolio format for South Carolina's students, teachers and administrators. The ePortfolio 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 proved 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 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.

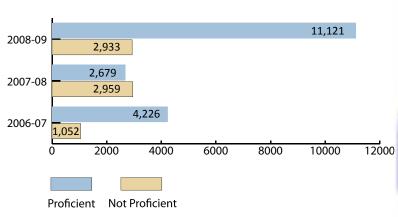
As a result of this successful project, the technology expertise of South Carolina's teachers and students has improved dramatically. During the last school year, the number of certified staff assessed increased by over 25,000 while the number of 8th grade students assessed increased by 69 percent. In addition, the number of 8th graders rated at a proficient level increased by 58%. 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

### ePortfolio Staff Technology Proficiency

Figure 6





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 2009-10 school year, approximately 25,000 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 student technology literacy, which in turn can assist students with improved achievement and improved test scores in academic core content subjects.

#### OnePlaceSC

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 inservice 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 OnePlace SC, South Carolina Educational Television's (SCETV) K-12 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, ondemand professional development content as well as through an energetic program of faceto-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 sources such as PBS TeacherLine, the U.S. Department of Education, the 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, as well.

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 6,500 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 & StudySC Professional Development**

The South Carolina State Library offers technology integration professional development opportunities for teachers, librarians and media specialists through a variety of means including DISCUS and StudySC site workshops, instructional fair and 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 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.

This year, a special effort was made to offer a greater number of online training sessions, thereby providing increased learning opportunities from the convenience of a desktop. This ability helps to eliminate the need for travel and allows districts to save valuable financial resources. During Fiscal Year 2009-10, 75 professional development opportunities were offered, including 24 online. A total of 922 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:

South Carolina's K-12 community is able to benefit from an impressive array of educational

resources ranging from the content developed by many of the Initiative's partners to the inspired teaching of the state's many dedicated and masterful teachers. However, our students can

only benefit from these resources if they can be widely, efficiently and equitably delivered to all schools and districts. The K-12 School Technology Initiative's effort to further develop and improve the state's instructional capacity seeks to turn this goal into a reality.

#### **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

"Our students can only benefit from these educational resources if they can be widely, efficiently and equitably delivered to all schools and districts."

> 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 44 of the state's 85 school districts, with another 26 systems scheduled to go into operation during the 2010-11 academic year. 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:

Learning is a uniquely personal experience involving students and teachers. Still, much of our ability to assess the success of educational outcomes, the efficiency of our public educational system's use of limited resources and the extent to which our children's developmental, physical and social needs are being met depends on improved methods of collecting, storing, retrieving and analyzing data. Equally important is the ability to effectively communicate and share those insights with school administrators and teachers.

#### **PowerSchool**

A tremendous asset in the effort to support this goal is the South Carolina Department of Education's (SCDE) PowerSchool student information system. PowerSchool has proven

to be a successful upgrade from the former system, Schools Administrative Student Information (SASIxp), and allows for the seamless tracking of students from

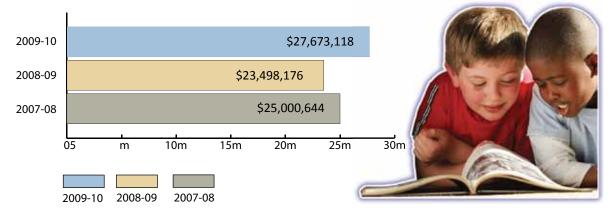
initial registration through the time they leave the SCDE system. This enhanced ability allows for more accurate reporting of student data including free/reduced lunch status, prior performance and a wealth of demographic information. Upcoming SCDE plans involving PowerSchool include the longitudinal mapping of students through their unique PowerSchool ID in an effort to better understand teacher quality and practices for improving student outcomes.

#### **Internet Connectivity**

As the technology needs of the educational system in South Carolina have grown, the S.C. Budget and Control Board's Division of State Information Technology (State IT) has made changes in the design of private-side WANs in order to 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. The original local bandwidth provided to schools and libraries was 64 Kilobits (kb) with a T-1 link to the Internet at each district. Today, the bandwidth for wide area network (WAN) links from all schools to the district office is over 10 Megabits (except where local facilities do not allow this speed) with many at 100 Megabits or higher.

"Bandwidth requirements have grown exponentially since the statewide network was created during the late 1990s."

> Each of the school districts in South Carolina has at least 10 Megabit direct Internet access (DIA) links with the statewide average DIA speed of 30 Megabits. However, even with the increased average, the majority of school districts are still requesting additional Internet bandwidth. Library systems throughout the state currently



### **E-Rate Consortium Application Funding**

Figure 7

have at least a T-1 link (1.5 Megabits), and the majority of these will be upgraded to a 10 Megabit DIA link during the 2010-11 school year in order to serve the over 5,000 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 of South Carolina. 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 a newly redesigned Web site consisting 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 two sources is used to pay for the vendor provided services which are responsible for supplying network access to connect public schools and libraries with private side WANs. 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 Allocation Policy**

In 2009, faced with the challenges of decreased budgetary resources and an ever growing demand for bandwidth, State IT set out to develop a means of ensuring equitable allocation of bandwidth while also ensuring that all E-Rate and appropriated funding is spent fairly to provide the appropriate level to each school and library in the state. The result of this effort was the adoption of a new Bandwidth Allocation Policy by the K-12 School Technology Initiative Committee.

The Bandwidth Allocation Policy, which went into effect on July 1, 2010, takes into account both the number of students served at each school and the percentage of those students who are eligible for free and reduced meals through the National School Lunch Program in determining how much state funding will be used to provide WAN and Internet bandwidth. The new policy, developed in cooperation with school districts and libraries also provides a means for allowing districts and libraries to obtain additional bandwidth by paying a monthly "cost share" to acquire it.

#### **K-12 Internet Policy**

As an additional means of helping to control the increased cost associated with the explosion of bandwidth demand, State IT and the K-12 School Technology Initiative have also developed an Internet policy designed to address specific requirements that must be met before appropriated or E-rate funds can be used to increase bandwidth. This policy is intended to ensure the equitable use of available funds to supply sufficient Internet access bandwidth to all districts, while still allowing those districts who have other funding available the option to expand their Internet bandwidth at the district's expense.

#### **Bandwidth Monitoring Program**

In an effort to ensure that connectivity and Internet bandwidth are best being used to serve the state's educational needs, in 2007, the K-12 School Technology Initiative Committee approved the implementation of 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/or virus attacks, as most districts do not have sufficient resources to deal with this ever increasing threat.

"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. Unfortunately, however, according to Education Week 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

The South Carolina K-12 School Technology Initiative has continued to leverage the vision, effort and expertise of the SC Budget and Control Board's Division of State Information Technology, the South Carolina Department of Education, South Carolina Educational Television, the South Carolina State Library, AT&T and other telecommunications providers operating within the state in order to lay the growing academic and administrative needs and students and teachers are provided with the standards-based, video and interactive content needed to help drive improved educational outcomes, it must be noted that the continual erosion of funding for this undertaking risks the preeminence and momentum that South Carolina enjoyed on the educational technology front a decade ago.

necessary foundation for a successful and thriving K-12 education system. Since its inception, the partnership has produced a unique combination of high-speed Internet and local

area network/wide area network (LAN/WAN) capability for schools and libraries as well as a wealth of valuable, curriculum standards-based, digital educational content designed to meet the specific needs and interests of our state's students and teachers.

These results are the product of the state's vision in the 1990s to connect all of its K-12 school districts to a high-speed computer network in order to allow access to advanced classroom instructional technology, content and administrative applications. In each of the three mission critical areas of technology, content and administration, the K-12 School Technology Initiative has worked diligently to focus all possible resources directly at the heart of K-12 education – learners and their environment – where learning actually occurs.

However, even as each of the Initiative's partners strive to ensure that our schools and libraries have the capacity to match their ever

"The erosion of funding for this undertaking risks the preeminence and momentum that South Carolina enjoyed on the educational technology front a decade ago."

> It is the profound hope of all the South Carolina K-12 School Technology Initiative partners that our legislative leaders, who clearly share our vision of a state educational system at the forefront of technology, assessment outcomes and global competitiveness, will respond thoughtfully and creatively to this great need.

# What's at Stake? Education in South Carolina...



K-12 School Districts in South Carolina

**143** Branch Libraries in South Carolina

1<sub>0</sub>173 Public Schools in South Carolina



690,A34

Students in South Carolina's K-12 Schools



Total Population of the State of South Carolina

**1** South Carolina

1996	<ul> <li>The South Carolina General Assembly created the K–12 School Technology Initiative.</li> </ul>		
	<ul> <li>The K–12 School Technology Initiative began funding two-way video projects across South Carolina.</li> </ul>		
1997	<ul> <li>The K–12 School Technology Initiative distributed over \$12 million to state districts for local technology implementation.</li> </ul>		
	<ul> <li>South Carolina Educational Television (SCETV) began digitizing its video resources for use in schools.</li> </ul>		
	<ul> <li>South Carolina was recognized by the Educational Testing Service as one of five states to provide telecommunications access in all schools.</li> </ul>		
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 for 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.		
	<ul> <li>86 percent of South Carolina's schools were equipped with satellite dishes in order to receive education programming, compared to a national average of 29 percent.</li> </ul>		
	<ul> <li>67 percent of South Carolina classrooms were connected to local-area computer networks (LANs), compared to 53 percent nationwide.</li> </ul>		
	• 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 (SASIxp), was provided free to all districts.		
	• 100 percent 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 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.			
	<ul> <li>SCETV's Distance Education Learning Centers were operational in all school districts.</li> </ul>			
	• 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.			
2002	<ul> <li>K-12 School Technology Initiative funding decreased from a high of \$40 million in 2001 to a five-year low of \$19 million.</li> <li>South Carolina strongly encouraged its school districts to adopt the International Society for Technology in Education's (ISTE) National Educational</li> </ul>			
	Technology Standards for Administrators (NETS-A).			
2003	All state school districts were fully implemented and running SASIxp.			
	<ul> <li>The Division of State Information Technology (State IT) 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.</li> </ul>			
	• K–12 School Technology Initiative funding provided Intel Teach to the future classes to educators across the state.			
	• The South Carolina Department of Education (SCDE) released its Technology Plan, 2003-08: Realizing the Dream, to all South Carolina stakeholders.			
	• K–12 School Technology Initiative funding supported 30 Technology Coaches.			

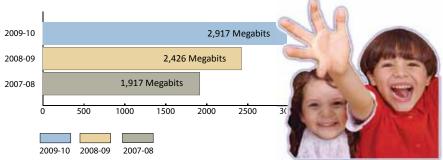
2003	• SCDE's Office of Technology released a new SASIxp template and the Data Collections Manual, initiated quarterly collections and began to rely on the new South Carolina Educational Data System (SCEDS).
	• SCDE's South Carolina Online Professional Development (SCOPD), now known as eLearningSC, was 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, 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 percent 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.
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.
	1

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 for 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.

## APPENDIX B – CHARTS

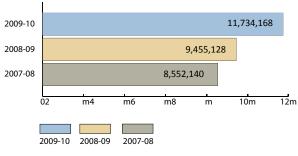
#### **Growth of Bandwidth Demand in School Districts**

Figure 1



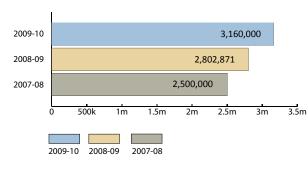
#### **DISCUS Usage (Items Retrieved)**

Figure 2



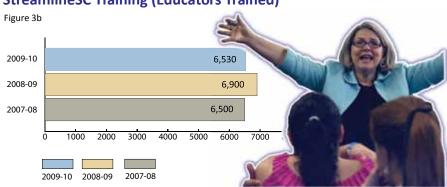








## APPENDIX B – CHARTS

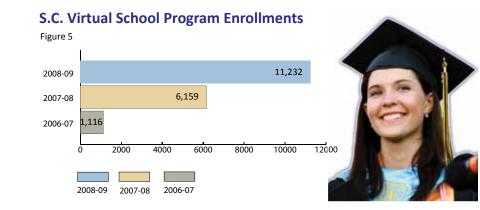


#### StreamlineSC Training (Educators Trained)

### **Knowitall Utilization Comparison**

Figure 4

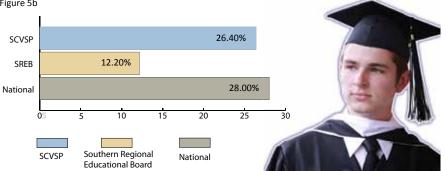
	2008-09	2009-10	% Incr./Decr.
Visits	597,648	989,023	+65.5%
Page Views	5,023,608	6,010,566	+19.5%
<b>Unique Visitors</b>	423,216	643,390	+52.0%



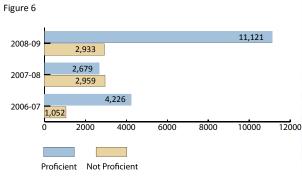
## APPENDIX **B** – CHARTS

#### **2009 Virtual School Growth Comparison**



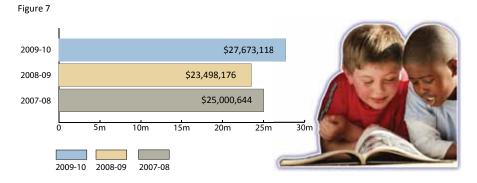


#### ePortfolio Staff Technology Proficiency





#### **E-Rate Consortium Application Funding**



# APPENDIX C – WHAT OTHERS ARE SAYING

#### DISCUS

"DISCUS is absolutely one of the things S.C. does right, and directly affects student achievement." (C. Connell, Richard H. Gettys Middle School, Easley, S.C.)

"DISCUS is a wonderful resource; thanks for continuing to make it better and better." (J. Power – Georgetown High School, Georgetown, S.C.)

"DISCUS is a vital resource for my large public high school. In some instances, DISCUS provides the only reliable, relevant and authoritative information for topics my students research." (*Teresa Carlson – Rock Hill High School, Rock Hill, S.C.*)

"My students use DISCUS every day. We couldn't function without this essential resource." (Cindy Sparks – North Central Middle School, Kershaw, S.C.)

"DISCUS is an invaluable resource to our school because we cannot afford to purchase subscriptions to online resources. Please continue to fully fund DISCUS for schools and families." (Vickie Napoli – Cooley Springs – Fingerville Elementary, Chesnee, S.C.)

"When my students use DISCUS, I know they are searching safe, educationally sound databases. My goal is for DISCUS to become a verb with my students...I want them to 'DISCUS' instead of 'GOOGLE." (Teresa Gray – League Academy, Greenville, S.C.)

"This is the one resource I cannot live without and my children cannot either." (E. Gregory – Richland School District One)

"Living in a rural area, it provides resources that my school would never be able to afford." (Susan Keaton – Abbeville High School, Abbeville, S.C.)

"DISCUS is a wonderful resource for our students that we would not be able to get on our own." (Gloria Taliaferro – Fork Shoals Elementary School, Pelzer, S.C.)

"Such an unbelievable resource for the state residents and schools." (Ellyn Parsons – Hartsville High School, Hartsville, S.C.)

"Don't let anything happen to DISCUS, we use it every day!" (Angie Fergerson – CTE)

"DISCUS has made so much available that we, as a small school, could not afford." (Gloria Robinson – Buford High School, Lancaster, S.C.)

"Our kids call it the "One Stop Shop" for information, especially when working on research projects." (Mary Silgals – Trident Academy)

"DISCUS is the best resource for fast information. I love using it with my students." (Shawnee Arrowood – Greenbrier Elementary School, Greenville, S.C.)

# APPENDIX C – WHAT OTHERS ARE SAYING

"Fantastic, comprehensive resource for students, faculty, and adults – and it's free!" (Beth Miller – Easley High School, Easley, S.C.)

"I enjoy the online resources! I trust the content." (Rene W. Howell – Macedonia Elementary School, Blackville, S.C.)

"With a small budget, we rely on DISCUS." (John Robert Young -W.M Anderson Primary School, Kingstree, S.C.)

"DISCUS is wonderful! Students, teachers, parents and the general faculty use this research to locate additional information to enhance learning from the classroom." (Eunice Canty – Anderson County School District)

"Great resources that are current, relevant and reliable!" (Amy Whitfield – Blythewood High School, Blythewood, S.C.)

"Our students are able to access resources that are unavailable in our collection through DISCUS." (Laura Diggs, Mayewood Middle School, Sumter, S.C.)

#### Knowitall

"I think that the Knowitall.org interactives are exceptional learning modules and are a perfect fit with the mission of the Digital Learning Library." (Tami Mount, PBS DLL Content Manager)

"Knowitall.org has a great civil rights activity focused on South Carolina." (Heidi Lewis, Guinyard-Butler Middle School, Barnwell, S.C.)

"One really, really great resource is the ETV Web site Knowitall.org." (Joy Hume, Alice Birney Middle School, Charleston, S.C.)

"What a wonderful resource for our South Carolina students! Many of our students have very limited experience with travel outside of our county and will no doubt enjoy learning more about (and feeling more connected to) the beautiful state in which they live through Knowitall.org." (Mary Whitman, Sanders Middle School, Laurens, S.C.)

"I had not been thoroughly familiar with some of the new features offered and it really started my colleague and I to plan how we will use your site with our project this year." (Brenda Lyles, McBee, S.C.)

"This workshop experience was amazing! Everything I learned today will be immediately used in my classes tomorrow. Thank you for offering these workshops." (Jared Johnson, Bethune-Bowman Middle/High, Rowesville, S.C.)

# APPENDIX C – WHAT OTHERS ARE SAYING

#### StreamlineSC

"It simply can't get any better than this... awesome!" (Anonymous – Lee County School District)

"I'm ready to help my teachers to create relevant, engaging technology rich lessons that will change the way our student learn!" (Shelly Hudson – Clarendon County School District III)

"Wonderful ideas, resources, and manageable chunks of information for teachers to implement with excitement with students." (Rebecca Coleman – Horry County Schools)

"I teach students with disabilities and have found a wealth of info that I can use to help my students. Thank you so much for sharing." (Ann Roberts – Orangeburg Consolidated School District 5)

"I can honestly say nothing makes me feel more valued as a teacher than these free ETV workshops!" (*Miguel A. – Clarendon School District 1*)

"The use of StreamlineSC ideas for creating online quizzes and assigments is simply wonderful." (Anonymous – Darlington County School District)

"I thought these workshops were a great opportunity for educators; It's been a fabulous experience!" (Erika – The School District of Greenville County)

"Kudos to SCETV for providing this learning experience free of charge." (Anonymous – Lexington District Two)

"No matter how many times I hear about SCETV and StreamlineSC, I learn something new." (Cathy Nelson – Spartanburg County School District Six)

#### **South Carolina Virtual School Program**

"Without this program, my son would have been forced to go to school another full year for just 2 classes. I wish to thank you for the help provided to my son during the course." (Unsolicited comment from parent)

"SCVSP has met our needs for students who are in need of classes that are not available at a particular time, but are required. Virtual school teachers have been excellent communicators and keep me informed so that I can 'encourage' students who need it." (SCVSP sponsor)

"I love having Virtual School as an option for my students!" (Anonymous quote)

"The Virtual School has been a very positive experience. I don't know what we would do without it." (Unsolicited comment from principal)