South Carolina
K-12 School Technology Initiative
2013-14 PROGRESS REPORT

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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 SC Budget and Control Board, SC Department of Education, SC Education Oversight Committee, SC Educational Television, SC State Library and the private sector represented by AT&T and the SC 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.

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SC Budget and Control Board

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SOUTH CAROLINA STATE DEPARTMENT OF EDUCATION

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1. EXECUTIVE SUMMARY

The past year has seen a number of exciting developments in South Carolina's drive to bolster K-12 educational technology, digital content and teacher training. The state's executive branch and legislature have each resoundingly endorsed the reality that modern education is inherently dependent on the availability of sufficient Internet connectivity, internal network bandwidth, placing computing devices such as tablets or laptop computers in the hands of every student, and ensuring there is sufficient wireless connectivity to create a seamless learning and working environment across school campuses and beyond. Likewise, our state's governmental leaders have endorsed the idea that the modern learning model is only complete when high quality digital learning content and teacher training are supplied as well.

In January of 2014, Governor Nikki Haley released the K-12 Education Reform Initiative, in which she noted, "Modernizing technology in our schools and improving bandwidth will give students greater access to educational content and also critical computer skills their future employers will demand."

One of the challenges Governor Haley identified in the "Investing in Educational Technology and Connectivity" section document was "Access to high-speed internet connections, modern educational technology, and digital instructional materials such as electronic software and textbooks varies widely in our schools – simply put, many of our schools do not have the adequate technology to teach our children in the 21st Century."

Governor Haley went on to detail several points in regards to this challenge, as listed below:

- "The K-12 Technology Initiative Committee has determined that it would cost $97.2 million to address the current technological needs of our public schools."

- "Internet bandwidth in South Carolina ranges from three districts that are below 100 megabits/second (Mbps) to the top three districts, which fall between 1,500 and 4,000 Mbps."

- "Countless studies have shown that enhanced educational technology can have a positive impact on student achievement. For instance, 14 of the 19 studies reviewed by the U.S. Department of Education's Institute of Education

Sciences showed that educational technology had "strong positive effects" on student achievement. Similar results have been obtained in math, science, and other fields."

- "One of the major findings of a 2007 review of digital equity in the K-12 setting was that 'educators are receiving inadequate technology professional development.' This view was echoed by a number of teachers who have joined the conversation in the past year."

The South Carolina General Assembly endorsed Governor Haley's technology initiative by appropriating the following amounts for Fiscal Year 2014:

- $29.3 million to improve bandwidth to school facilities, bolstering wireless connectivity within school walls, and launching or enhancing 1-to-1 technology initiatives.
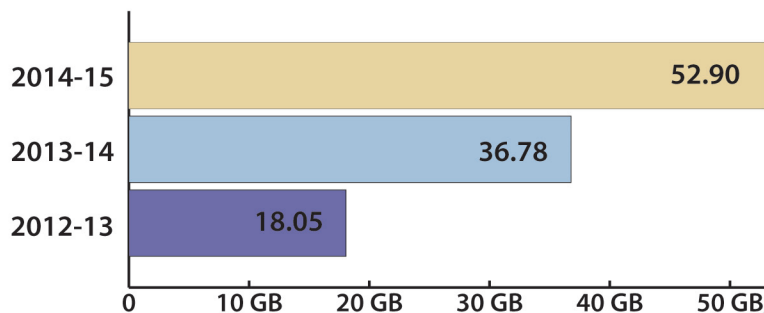- $10.2 million in Education Improvement Act (EIA) funds for connectivity, content

and training;

- $12 million for digital instructional materials; and $4 million in one-time funds for technology-related professional development for teachers.

The South Carolina K-12 School Technology Initiative provides a unique platform for assisting state policymakers in identifying the most critical K-12 technology needs and developing cost-effective solutions to meet those needs. Additionally, the Initiative partners can marshal the expertise of professional educators from the South Carolina Department of Education and our universities, the technology synergies of the state's Division of Technology, AT&T, and other telecommunications entities, and the content development and delivery capabilities of the South Carolina State Library and South Carolina Educational Television.

This ability helps make the K-12 School Technology Initiative an irreplaceable asset to the state's K-12 schools in implementing the

Growth of Internet Bandwidth in School Districts

Year	Bandwidth
2014-15	52.90
2013-14	36.78
2012-13	18.05

(Horizontal axis: 0, 10 GB, 20 GB, 30 GB, 40 GB, 50 GB)

most efficient networks inside schools and districts and in choosing and deploying the most productive web-based K-12 learning content and teacher training courses.

A 2013 teacher survey by South Carolina Educational Television revealed that 96 percent of respondents identified the Internet as the best method of delivering content and services. In addition, 64.7 percent of teachers responding to the survey stated that it is "very important" that students have Internet access outside of the school/classroom.

As always, the overarching educational mission supported by the K-12 School Technology Initiative is that of preparing young South Carolinians to be successful, productive participants in the emerging "knowledge-based economy." Crucial to meeting this objective is the creation of an interconnected learning space characterized by teachers trained and equipped with the most viable modern instructional technology, learners with direct access to an individual computing device, a robust library of engaging learning content and resources, and seamless connectivity inside and outside school building walls.

This is the world in which our K-12 system graduates will work and interact. This is the world for which South Carolina must educate its young people through the forward-looking deployment of learning technology and content.

Who Does the K-12 School Technology Initiative Serve?

81
SCHOOL DISTRICTS

1,246
PUBLIC SCHOOLS

145
PUBLIC LIBRARIES

61,831
INSTRUCTIONAL STAFF

718,337
STUDENTS

4,775,000
CITIZENS

1
SOUTH CAROLINA

2. STUDENT LEARNING & CLASSROOM TECHNOLOGY

South Carolina Technology Plan Goal:
All districts across the State of South Carolina are striving to improve student learning through technology.

Partner Efforts to Support the Goal:
If one were to drive past a school facility in South Carolina today, there would be few visible differences when compared to a similar school from 25 years ago. However, what is going on inside (and outside) of those school walls is radically different from anything experienced by past generations of K-12 learners.

One-to-one computing initiatives are placing tablet and laptop devices into the hands of individual students. In turn, these students work both collectively and individually, teacher-supervised and independently, to gather content from numerous online sources while building intelligent solutions to real-world problems. Such work is conducted not only in the traditional classroom and library settings, but across the entire school campus, student transportation system, after-school learning centers, public libraries and at home. Students are also taking advantage of virtual curricula and accessing

Internet-based educational content on an exponentially increasing basis. By taking advantage of this burgeoning technological revolution, our students better prepare themselves to compete in the knowledge-based economy that is driving South Carolina's business development efforts.

Students aren't the only ones participating in this changing landscape, as our teachers are also subject to the new demands of Web-driven, interactive learning. Today's K-12 teacher, far from being intimidated by classroom technology, is expected to not only be proficient in its use, but must also guide learners into a realm in which the location, comprehension, aggregation and delivery of content from a variety of online sources is the new normal.

"Clearly, learning activities are no longer physically constrained by the brick-and-mortar walls of the classroom, computer lab or school media center."

It is critical to teachers and students alike that the technology, even if highly advanced, be essentially transparent in its support of learning. Students need to be able to spend their time learning, developing complex ideas based on educational content, not

trying to get their tablet connected to the school's wireless network. Teachers need to be developing interactive lesson plans and addressing the learning needs of their individual students, not struggling to configure a smart board so that it communicates with a video projector.

Clearly, learning activities are no longer physically constrained by the brick-and-mortar walls of the classroom, computer lab or school media center. A teacher sitting in a faculty lounge may engage a student via a network-based learning management system to provide guidance on completing an assignment. Conversely, a student in a public library may collaborate online with a classmate working at home and another in a local coffee shop in order to share Web resources for a class project.

The challenge facing the partners of the South Carolina K-12 School Technology Initiative is to help the state's schools, districts and public libraries provide a robust learning framework. This framework – consisting of vital network and Internet connectivity, wireless networking to allow seamless mobility across school campuses and the community, and high-quality learning content – is an integral part in helping our students develop the kind of critical thinking skills and technology literacy necessary in today's knowledge-based economy.
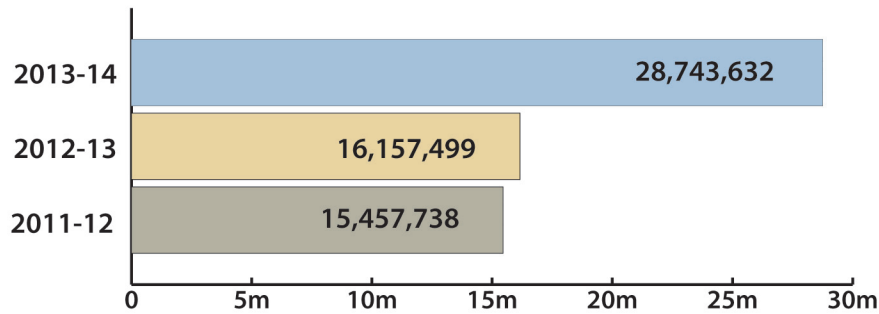
Discus

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 at any time, on a 24x7 basis. Since its inception 16 years ago, there has been a continual growth in usage. The following chart illustrates Discus usage over time and demonstrates the program's contribution to the K-12 learning environment. In FY 2013-14, South Carolinians retrieved 28,743,632 items through Discus, of which the K-12 community has historically been responsible for a large portion of these retrievals.

In the South Carolina Department of Education (SCDE) document South Carolina Standards for School Library Resource Collections (2012), Discus was included as an indispensable resource to provide a platform to help school libraries meet standard collection recommendations for all grade levels, including elementary, middle, and

Discus Usage (Items Retrieved)

Year	Items Retrieved
2013-14	28,743,632
2012-13	16,157,499
2011-12	15,457,738

(Chart scale: 0, 5m, 10m, 15m, 20m, 25m, 30m)

South Carolina State Library

high school. Without Discus, many resource-constrained schools could not meet these core collection recommendations.

Discus provides the same high-quality resources regardless of economic status or geographic location, supporting equal access for all. 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.

Discus also 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 2013-14 were $2,397,495.

- If each library purchased access separately, the total cost would be over $57 million.

- Administration of this statewide program provides cost avoidance of over $52 million (Discus license renewal costs were over $2 million).

- All state funding for Discus goes directly to database acquisition.

To learn more about South Carolina's virtual library, Discus, please visit www.scdiscus.org.

StreamlineSC

South Carolina Educational Television (SCETV), in partnership with the SC Department of Education (SCDE) and the K-12 School Technology Initiative, created StreamlineSC, a standards-based video-on-demand service, in an effort to help improve and manage learning resources in the state's schools. School officials and community leaders can track and evaluate StreamlineSC utilization in the classroom. South Carolina has high usage in providing standards-based, taxonomy, and grade level defined media on-demand to all state students and teachers. ETV's StreamlineSC service has been embedded in schools for ten years.

Funding provided by the K-12 School Technology Initiative allows StreamlineSC to

offer valuable K-12 resources free of charge to all public, private, and home schools. These online resources are secure, qualified, and delivered to meet a wide variety of K-12 needs including one-to-one and project-based learning. Discovery Education, Public Broadcasting Service (PBS), and other national streaming services are provided. Local district multimedia resources are searchable and correlated to South Carolina's state K-12 curriculum standards. StreamlineSC also allows local schools to share video and other educational resources with schools and districts statewide.

Learn360, ETV's new, award-winning content provider, brings access to materials from the British Broadcasting Corporation (BBC), National Geographic, Encyclopedia Britannica, History Channel, Cambridge Educational, and many more. In addition, StreamlineSC has expanded its offerings to all South Carolina pre-K-12 students who use public libraries, child care and afterschool facilities.

StreamlineSC generated 5.9 million uses of resources in FY 2013-2014, and continues to demonstrate high per teacher user rates for the service. The service is being used in all of the state's public school districts and schools, 361 private and special schools and 278 home schools and associations. There are over 39,000 active registered teachers and support staff using the service, and 142,117 educational assets, including 27,176 local and state resources.

To learn more about StreamlineSC, please visit www.scetv.org/education/streamlinesc.

PBS Learning Media

South Carolina Educational Television (SCETV) also partnered with the Public Broadcasting Service (PBS) to provide a comprehensive source of learning objects – including video, audio, images, games and interactive learning activities – designed specifically for classroom use. The new service, PBS LearningMedia, is a media-on-demand service similar to SCETV's StreamlineSC. This K-12 service features PBS

StreamlineSC Utilization (Resources Used)
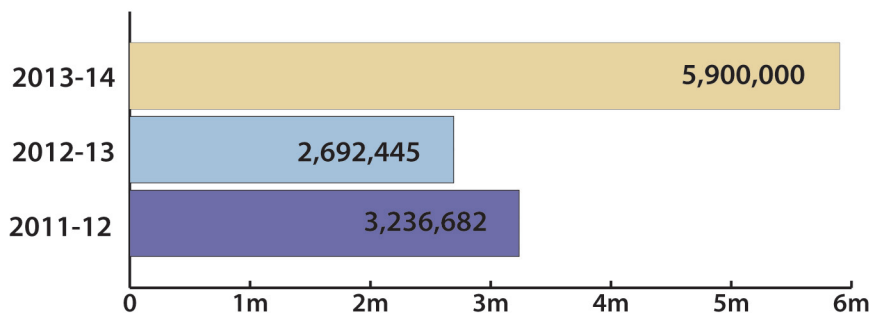
Year	Resources Used
2013-14	5,900,000
2012-13	2,692,445
2011-12	3,236,682

Note: Additional assets (non-video and interactives) were included for the 2013-3014 reporting period. These measurements were not included in the earlier reporting periods (SCETV).

award-winning content that has high value research supporting how students benefit with proper engagement. PBS Kids programs, including mobile applications and interactive games, are part of LearningMedia, and several PBS Kids series were specifically developed to teach pre-K to 3rd grade children how to read. PBS Kids provides a comprehensive transmedia platform for early literacy and science, technology, engineering, and mathematics (STEM) curriculum.

To learn more about PBS LearningMedia, please visit www.pbslearningmedia.org.

Portal Systems

South Carolina Educational Television (SCETV) maintains Internet Protocol (IP) based content delivery systems as requested by school districts. These portal systems, which reside on school district wide area networks (WANs), are IP media distribution servers that provide core-to-media content delivery throughout the districts and include local host storage and retrieval capacity.

ETV, commercial vendors, and much of the participating district's educational local cable content are distributed via these systems. Seventy-two of South Carolina's 81 school districts are equipped with IP media distribution servers 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.

Knowitall.org

Another essential resource supported through the K-12 School Technology Initiative is South Carolina Educational Television's (SCETV) Knowitall.org. Created for K-12 students, teachers and parents, Knowitall.org 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.

During the 2013-2014 reporting period, Knowitall.org resources were viewed more than 3.2 million times. Plans are in place to offer a mobile-friendly version of Knowitall.org which will increase site utilization. Knowitall.org contains 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.
- RiverVenture – which allows students to travel virtually down the length of one of South Carolina's primary watersheds, continues to enjoy great popularity with students, teachers and parents.
- Career Aisle – provides career counseling videos aimed at assisting counselors and students in focusing learning on

Knowitall Utilization Comparison

	2011-12	2012-13	2013-14
Visits	911,837	835,658	786,258
Page Views	4,474,721	3,564,622	3,248,591
Unique Visitors	783,816	640,070	636,646

Note: Knowitall has been in existence for 12 years and is not mobile friendly. The reduction in use is due to aging content. Now most users access resources on mobile devices. ETV is revamping the Knowitall site during 2015-2016 to make it user friendly (SCETV).

marketable career objectives, continues to be a popular site with over 400,000 page views.

Another important career development resource available through Knowitall.org is the ETV American Graduate website. ETV American Graduate is a Corporation for Public Broadcasting-funded initiative designed to help communities across the country develop solutions to address the dropout crisis by encouraging awareness of the contributing factors, as well as the economic consequences of dropping out of school. ETV American Graduate informs the public about South Carolina's graduation rate and also helps link stakeholders – including educators, parents and students – to local educational resources, community organizations, youth groups and alternative learning options.

Based on the success of the 2012 event, SCETV secured and hosted an American Graduate Youth Media Summit and Civil Rights Forum in the spring of 2013. The project, which focused on digital and social media as a strategy for

student engagement and critical thinking skills, allowed students the opportunity to interview civil rights veterans. The project won a Television Website Merit Award and the Richard M. Uray Public Service Project of the Year Merit Award from the South Carolina Broadcasters' Association. A third grant was secured in 2013 for an 18-month project that will provide stories on dropout prevention, use multi-media platforms including a town hall meeting, and host a youth summer institute for high school teachers and students.

To learn more about Knowitall.org, please visit www.knowitall.org.

StudySC

In 2010, the South Carolina State Library (State Library) launched StudySC, a K-12 educational resource that provides online content designed to support state-specific curriculum standards. StudySC provides South Carolina-related web resources for homework and project assistance while also offering

StudySC Visits
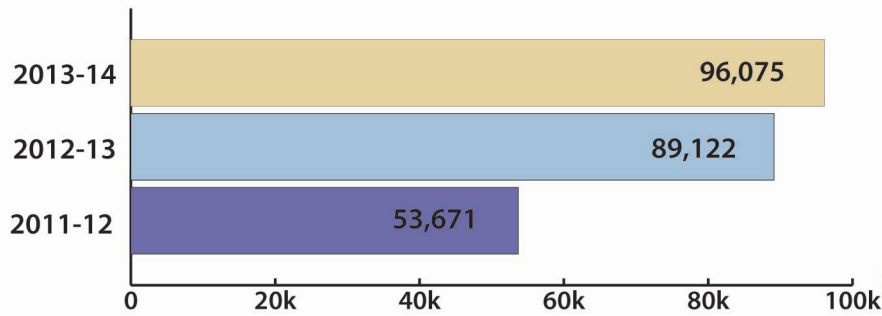
South Carolina State Library

lesson plans and other content designed to support classroom activities. Information – including links to high-quality websites and multimedia content – is arranged by grade level and subject area, so students can access the information they need as efficiently as possible. StudySC continues to be a valuable and popular resource.

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. Subjects include culture, government, environment and geography as well as history. In addition, the site includes a section on famous South Carolinians, a glossary, daily Twitter feed with South Carolina facts, and South Carolina Book Award nominees from the South Carolina Association of School Librarians. This year, StudySC was redesigned with a new look and responsive web design for a better user experience on tablets and smartphones.

In FY 2013-2014, StudySC had 96,075 visits from across the state, an increase of 8 percent from the previous year.

To learn more about the South Carolina State Library's StudySC, please visit studysc.org.

VirtualSC

VirtualSC, formerly known as the South Carolina Virtual School Program, was created in 2007 by the SC Department of Education's (SCDE) Office of Virtual Education. Since that time, VirtualSC has become an invaluable resource to students throughout the state by offering online courses for credit and free-of-charge to all South Carolina students.

The virtual school program has become increasingly popular since its inception, as evidenced by the 31 percent growth in student enrollments during the past year. VirtualSC courses, available to any South Carolina public, private or home schooled

student, are provided online via an online learning management system, student information system, e-mail, telephone, instant messaging, and real-time Web conferencing software.

To ensure that course offerings meet SCDE assessment requirements and align to state standards, materials are evaluated by a VirtualSC curriculum coordinator. In addition to this requirement, VirtualSC staff evaluates 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, this year the VirtualSC staff will begin to review all courses based on the Quality Matters framework to ensure courses meet accessibility standards and follow the guidelines of an external review framework. Future plans include having all courses reviewed by an external review committee, using the Quality Matters framework, to ensure that all courses meet national guidelines and standards, as well as state academic standards.

Courses offered through this program are taught by state-certified teachers who have shown expertise in their subject areas. All VirtualSC full-time teachers hold a rating of "highly qualified" in their subject area by the SCDE.

In addition to their outstanding credentials, all full-time and part-time teachers must undergo in-service Online Professional Development training to teach with VirtualSC. VirtualSC employed 27 full-time teachers for the academic year in addition to 51 part-time teachers and Language Coaches that were needed based on increased requests for courses.

In 2013-14, VirtualSC was able to serve 22,107 students from 415 schools in 81 public school districts, 23 home school associations, 63 private schools, and 33 adult education centers located throughout the state of South Carolina. Out of the students who completed their coursework, the virtual school program

VirtualSC Enrollment History

Year	Enrollment
2013-14	22,107
2012-13	16,800
2011-12	15,829
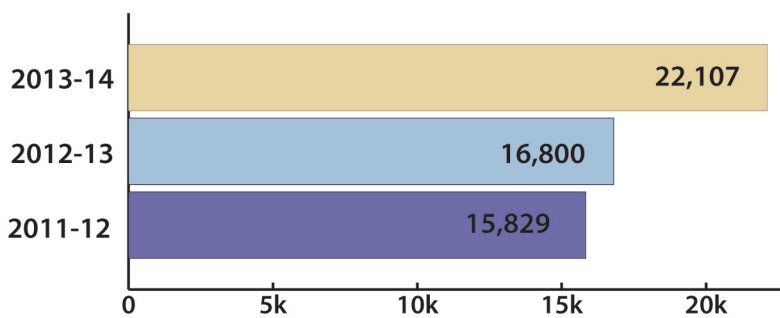
South Carolina Department of Education (SCDE)

had a successful course completion rate of 92 percent for the year.

VirtualSC offered courses in nine subject areas including Career and Technology, Fine Arts, World Languages, English, Health/Physical Education, Mathematics, Science, Social Studies and Test Preparation, in addition to 78 diverse courses of varying levels, such as advanced placement, credit recovery, and college preparatory classes. VirtualSC also offered three languages – Spanish, Latin, and Mandarin Chinese – and a variety of electives in such popular career majors as health occupations, family and consumer science, and business education.

Over the past year the virtual school program has undergone a number of major changes. First, the program was completely rebranded with policies and procedures that focus on individual student achievement and success. Additionally, teachers are now more focused on individual student success, so courses are built with complete flexibility in mind to allow individual learners more options to meet their educational goals. The rebranding of the program also included a new website, a new student information system that makes registration easier, more diverse course offerings, and a new program name.

The program has also expanded to offer middle school level courses. In 2012-13, VirtualSC piloted 8th-grade English and Math Intervention courses with approximately 150 students in two districts. Due to the success of

this pilot, VirtualSC developed 6th and 7th-grade English and Math Intervention courses and offered them to 14 middle schools across the state, with 344 students participating during the summer school session.

In looking at the results from the pre-test versus the post-test analysis, students gained 29 points from the beginning of the course to the end of the course, which allowed their schools to promote the students to the next grade level with confidence they could handle the required work. Over the course of the next year the program will seek to begin developing more core-content middle school level courses, as well as some elementary level courses, to complete the K-12 course offerings.

In 2013-14, VirtualSC partnered directly with schools to offer Virtual Learning Labs designed to help schools fulfill several needs resulting from budget cuts, reduced funding, and unfilled teaching vacancies at smaller schools across the state. Through these Virtual Learning Labs, VirtualSC provides a highly qualified and state certified teacher, the South Carolina standards-based course, and meets on a virtual basis with participating students during a set period of the school day to provide instruction.

In addition, the program also began a robot pilot, which became part of the Virtual Learning Lab option. Through the use of a Double Robot which displays a visual image of the actual teacher, the VirtualSC teacher

can better physically connect with students in the classroom. Data is being gathered during the 2014-15 school year which will help to make informed decisions about the future and effectiveness of the robot pilot as part of the Virtual Learning Labs. VirtualSC will also be working with two schools, the LEAD Academy Charter School and Dacusville Middle School, to offer keyboarding instruction through use of a Virtual Learning Lab.

Finally, VirtualSC began to offer a new flexible Franchise Program to schools and districts across the state. This program will allow schools to use VirtualSC developed course content, the program's learning management system (Moodle), and the VirtualSC Student Information System (SIS). Aiken Virtual Academy, which is a supplemental program offered through the Aiken County School District, became the first VirtualSC

franchise. Aiken Virtual Academy will serve approximately 400 students during the 2014-15 school year and progress will be monitored by VirtualSC to ensure the programs' success. Several additional districts have also started the process of becoming a franchise, including Berkeley County School District, Beaufort County School District, and Jasper County School District.

VirtualSC Additional Funding Needs

The VirtualSC program has grown exponentially over the past few years and is poised to continue such growth through a number of different avenues. Additional funding will allow the program to expand at a faster rate into the middle and elementary school grade levels. In addition, instructional materials used to develop new courses are costly, so expansion into different areas could be done at a faster rate with additional

VirtualSC's innovative Double Robot in action at the Dacusville Middle School in Easley, S.C. (SCDE/VirtualSC)

funding.

Currently, one of the main goals of the VirtualSC program is to partner with South Carolina's schools to help bring about educational equity to all schools. Such equity can be reached, in part, by offering courses that may not normally be available to students in smaller and more rural schools, such as AP level courses, World Language courses, and various electives. VirtualSC would also like to partner with under-achieving schools by offering Virtual Learning Labs as well as the Franchise Program.

While these programs offer a huge cost savings to the schools, there are still costs involved with purchasing both instructional materials and licensing fees. These costs increase as the number of participating students increase. So, for the program to continue to improve and reach most of the districts and schools in South Carolina, additional funding will be needed.

To learn more about the South Carolina Department of Education's VirtualSC, please visit virtualsc.org.

3. INFRASTRUCTURE AND SECURITY

South Carolina Technology Plan Goal:
Provide a robust, secure and cost effective technical infrastructure that improves equitable access to appropriate technologies for all schools in South Carolina.

Partner Efforts to Support the Goal:
The salient features of the K-12 classroom, circa 1994, were not unlike those of classrooms from a half-century before: chalkboards, student desks, heavy, paper textbooks and a lecture-based pedagogy. While "audio-visual supports" had evolved from 35mm filmstrips to VHS video cassettes, the actual learning dynamic, in both its physical and cognitive attributes, remained largely the same.

In 2014, the typical learning experience is now increasingly based on access to personal computing devices; either laptops or the new generation of powerful tablet devices. In today's classroom, both the teacher and the student are often connected wirelessly to the network, teachers illustrate lesson concepts from their own tablet device or from a network-connected smart board, and paper-based textbooks are being replaced with e-books complete with links to online video and interactive learning content. In addition, through the use of network-based learning management systems, teacher lesson plans, student assignments, assessments, learning content and communication with parents are now centralized, streamlined and interconnected with school, district and state-level student record systems and administrative tools.

It is impossible to conceive of this sort of learning model without high-capacity, robust networks, both wired and wireless, inside K-12 school and public library walls. The broadband connections between schools and districts, and high-bandwidth connections to the Internet allow for access to Web-based learning resources and extend the learning space beyond the walls of the school or library building.

> *"Today's typical classroom experience is increasingly based on access to personal computing devices, with the teacher and student often connected wirelessly."*

Unfortunately however, this technological framework is, by its very nature, susceptible to malicious attack and exploitation unless best-of-breed security measures are implemented and rigorously maintained. The K-12

educational enterprise serves young persons whose safety is mandated by state and Federal law, and is the custodian of a large body of data that is similarly protected. Seen as a whole, South Carolina's K-12 community resembles a very large business with many end users, spread over a large number of network nodes and across a substantial geographical area. As such, it is critical the system's users and data be protected from unsafe or malicious activity. Security hardware and software deployed on K-12 and public library networks and Internet gateways must be effective, up-to-date, and properly configured at all times, in order to secure the network, its users, and its data.

The K-12 School Technology Initiative assists public libraries, schools districts and schools in assessing their security readiness, implementing necessary improvements, and in the monitoring of networks to identify and mitigate security events and network inefficiencies caused by unwise or malicious activity. The goal of these efforts is to ensure that South Carolina's K-12 schools and public libraries have the technology foundation they need, the user and data security they deserve, and the cost-effectiveness that the state's tax-paying citizens expect.

IP Portal Distribution/Local Content Hosts

One means of achieving this goal is through the use of South Carolina Educational Television's (SCETV) Portal Systems. Television

is now being delivered through district computer networks, while video and other multimedia classroom resources designed to support curriculum and professional development are housed on district network servers. SCETV actively supports the transition to district Internet Protocol (IP)-based systems, which are managed by district qualified instructional technology and curriculum support personnel.

Various IP-based systems are utilized in 72 of the state's 81 school districts. SCETV supports these IP systems, broadband technology and infrastructure needed by K-12 schools and districts, while also helping to install and support content host servers and streaming encoders that provide secure, safe deliveries needed to protect the integrity of content and efficiencies of web access. This support also includes the planning, installation and limited maintenance of equipment necessary to receive live broadcast/multicast and on-demand programming.

Schools are empowered with the ability to view live broadcast and archived video that originates within the local school, district, or anywhere in the state or nation. Programs recorded and archived on the system's local media servers contain dependable SCETV – including ETV StreamlineSC and PBS – programming, SC Department of Education content, local district and other qualified K-12 resource providers.

PowerSchool

PowerSchool, the South Carolina Department of Education's (SCDE) statewide student information system, is a tremendous asset in the efforts to aid the Infrastructure and Security goal. Through PowerSchool, all public schools and districts in South Carolina use the same student information system which allows greater attention to be placed on improving efficiency and effectiveness of data entry, data management and data use.

PowerSchool provides school districts with the capability to input, store, update, manage and report student enrollment, demographic, attendance and other school related data. The enhanced capabilities of PowerSchool allow for more accurate reporting of student data as it pertains to enrollment, attendance, program participation, and demographics, for funding, accountability, program management, and research and evaluation purposes.

SCDE, working in partnership with the state's school districts, focused its data quality improvement efforts on expanding cost-effective training opportunities for district student information system staff, improving the statewide longitudinal data system (SLDS) data dashboards, and coordinating the authorization and authentication of restricted data access users, such as teachers, principals, and administrators. Also in FY14, SCDE redesigned, tested and implemented a new system for collecting, validating and storing PowerSchool data sent by districts to the state

agency in compliance with state and federal reporting requirements.

Enhanced training opportunities for districts were also provided by working collaboratively with the South Carolina PowerSchool Users Group (PSUG) to prepare training sessions and by providing SCDE technical staff as trainers and presenters for the annual PSUG Conference in Myrtle Beach. This conference served as a substitute for the more costly out-of-state PowerSchool University (PSU) training sessions provided by Pearson Education, and as such, allowed a greater amount of in-state participation.

South Carolina Longitudinal Information Center for Education (SLICE)

The South Carolina Department of Education (SCDE) is working with South Carolina's school districts on several data-related initiatives to improve the quality, timeliness and availability of educational data. One such initiative is the South Carolina Longitudinal Information Center for Education (SLICE), the state's statewide longitudinal data system (SLDS) developed with state funding and a federal SLDS grant.

SLICE comprises an efficient data collection process, a comprehensive data warehouse, as well as data dashboards that will serve to provide educators and administrators with more convenient access to a broad range of data on student academic performance, and gives the public access to summary data and information at the school, school district and

state levels. SLICE is intended to provide more convenient access to data and information about public K-12 education through dashboards, reports, tools, snapshots, and accountability results.

SLICE also provides a secure, accurate and anonymous method(s) for data matching and data sharing among SLICE partner agencies, which include the South Carolina Commission on Higher Education (CHE), South Carolina Department of Social Services (DSS), South Carolina Department of Employment and Workforce (DEW), South Carolina First Steps to School Readiness, and the South Carolina Revenue and Fiscal Affairs Office (RFA).

For additional information on SLICE, visit http://ed.sc.gov/agency/slice/index.cfm. The SLICE web portal, data dashboards, and tools for educators and administrators can be viewed by visiting https://slice.ed.sc.gov/.

In FY15, school districts and the SCDE are working collaboratively on: (1) plans for training and professional development for teachers and administrators on data security, data privacy, and appropriate use of data to support effective teaching and learning; (2) development of customized data dashboards, tools, and reports that address specific needs and priorities defined by school districts; and, (3) design

and implementation of a new more secure and more efficient statewide system for data sharing, transmission, and reporting between South Carolina's school districts and the SC Department of Education.

Expansion of Broadband Infrastructure

Since 2010, the South Carolina Budget and Control Board's Division of Technology (DT) has strived to expand the states' public K-12 schools and libraries network connectivity. The main focus of this effort is designed to provide a stronger technology foundation for K-12 students, teachers and library patrons as they acquire the skills needed to prepare for 21st Century emerging educational technologies and job opportunities. As a direct outcome of this focus, fiber-based high-capacity broadband connectivity continues to be expanded on a statewide basis among schools and library entities.

Internet and Network Connectivity

The accelerating evolution of technology constantly drives the need for schools and libraries across the state to secure more Internet connectivity and private-side wide area network (WAN) capacity. As these new technologies are helping to advance the State's education system, the use of more interactive
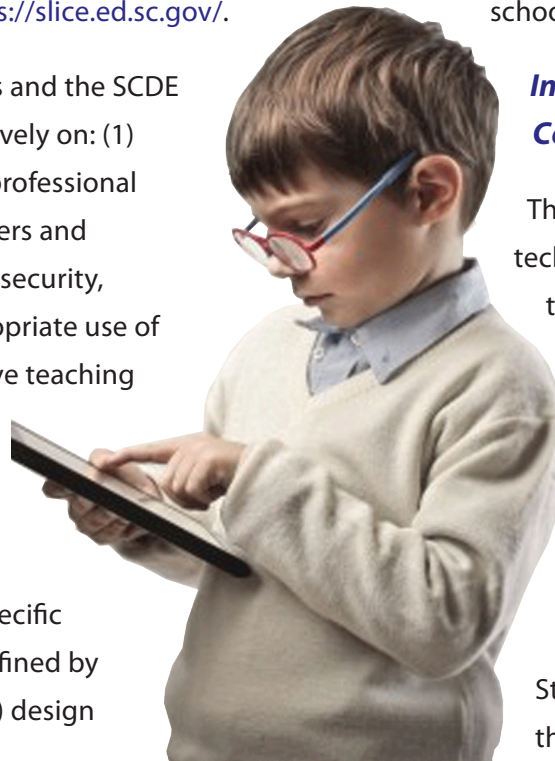
digital and video learning resources, mobile computing initiatives, online standardized testing, real-time student data repositories and other communication are vital to the social and economic development of the Palmetto State. The Division of Technology (DT) and its fellow K-12 School Technology Initiative partners have taken actions to address these various bandwidth demand influences and the goal of providing high-capacity Internet connectivity to school districts and library systems has been achieved.

Sufficient high-speed broadband support for digital learning in schools and libraries, a key resource in connecting students and library patrons to 21st Century educational utilities, has been in the national spotlight during recent months. A major milestone in this area was achieved in July 2014, with the adoption of the Federal Communications Commission's (FCC) 7th Report and Order entitled the "E-Rate Modernization Order."

This order ignited nationwide actions to be taken in order to ensure affordable and available access to all school and libraries. This included further expansion of the E-Rate program to address closing the Wi-Fi connectivity gap within schools and libraries by reducing funding support for non-broadband services and establishing a $1 billion annual budget targeted for Wi-Fi support.

The FCC's Order specifically adopts the

recommended Internet bandwidth targets provided by the State Education Technology Directors Association (SETDA). These recommendations include:

- Schools – Initially at least 100 Mbps per 1,000 students/staff (users) expanding to 1 Gbps over time;
- Libraries – 100 Mbps serving 50,000 people and above 50,000 people 1 Gbps;
- Wide Area Network (WAN) – WAN connectivity's non-specific target is for schools and libraries to have connections capable of providing dedicated data service scalable to SETDA's long-term WAN target of 10 Gbps.

Because of the various efforts taken by the K-12 School Technology Initiative over the past four-years, more affordable high-speed fiber connectivity access is available to schools and libraries statewide. In South Carolina, public school districts have met SEDTA's Internet bandwidth of 100 Mbps, and one-fourth of the districts currently have connections at 1 Gbps. Although South Carolina's public libraries have the option to acquire the targeted 100 Mbps bandwidth, many are limited by the costs associated with infrastructure upgrades. Currently, the average Internet bandwidth speed for the library systems is approximately 50 Mbps.

In an FCC-provided fact sheet detailing the E-Rate rule changes, Chairman Tom Wheeler addressed the connectivity gap in rural and low-income areas and provided a number

of statistics to better illustrate the current inequities. In comparison to the national data provided by Chairman Wheeler, South Carolina can be proud of the progress it has made in addressing this issue, and recognized as a national model, having moved ahead of other states in addressing the high-speed connectivity gap. A point-by-point comparison is provided below:

- **National**: 68% of all districts (73% of rural districts) say that not a single school in their district can meet today's high-speed Internet connectivity targets.
  State: South Carolina has met or exceeded these targets.

- **National**: 41% of rural public schools lack sufficient access to fiber networks to meet modern connectivity goals, compared to 31% of suburban and urban public schools.
  State: South Carolina has met or exceeded these targets as all school district have fiber-based (Ethernet) Internet access.

- **National**: 39% of schools in affluent areas currently meet high-speed targets, but only 14% of schools in low-income rural and urban areas meet those targets.
  State: This is not the case in South Carolina as our urban and rural schools are on a level playing field.

- **National**: 45% of districts lack sufficient Wi-Fi capacity to move to 1:1 student-to-device deployments, which is increasingly necessary to achieve modern digital learning objectives.
 **State**: While we may currently fall into this category, South Carolina is rapidly approaching the 55% side of districts that have sufficient capacity, thanks to E-Rate and the $29 million allocation for Fiscal Year 2014-15.

- **National**: 50% of all public libraries report connections of less than 10 Mbps (70% of rural libraries), or less than 10% of the short-term target and less than 1% of the long-term target connectivity level.
  State: This is not the case in South Carolina, as our public libraries average 30 to 50 mbps.

> *"South Carolina can be recognized as a national model, having moved ahead of other states in addressing the high-speed connectivity gap."*

The K-12 School Technology Initiative has also taken action to address the obstacle of school districts being able to expand the utilization of connectivity resources inside their buildings. During the 2013-14 school year, the lack of funding needed to close the digital divide in our state's education system was presented to the Governor. This concern was subsequently addressed in Governor Haley's K-12 Education Infrastructure Initiative, which called for initial steps to be taken to address this challenge, including an additional funding allocation in the amount of $29,288,976 million for fiscal year 2014-15.

E-Rate Funding Year Commitments
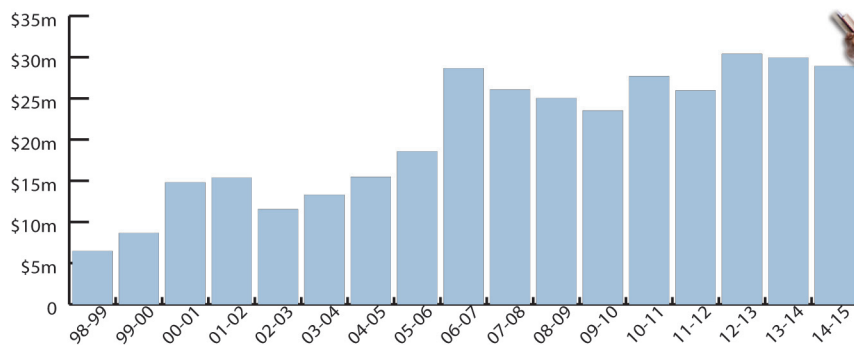
This approach at the state level is an investment in education technology and connectivity, as the dedicated funds will be used to improve bandwidth to school facilities, to establish or enhance wireless connectivity and 1-to-1 technology initiatives.

The K-12 School Technology Initiative's partners have been tasked as overseers of this new initiative.

"Modernizing technology in our schools and improving bandwidth will give students greater access to educational content and also critical computer skills their future employers will demand," - Governor Haley's "K-12 Education Infrastructure Initiative."

The Palmetto State will continue its efforts to address the national issue of ensuring our schools and libraries have the access to high-capacity broadband connects necessary to support a variety of 21st Century learning and digital environments. Many of the outcomes proposed via Governor Haley's initiative are

in-line with noted national initiatives such as those recommend by the State Education Technology Directors Association's (SETDA) "The Broadband Imperative" and the White House's "ConnectED Initiative," which advocate the need to expand affordable high-capacity broadband connectivity for schools and libraries.

E-Rate Program

Since 1998, the federal E-Rate Program has proved transformational for education technology in public schools and libraries across South Carolina. Today the support provided by this program is being utilized by the Division of Technology (DT) to acquire broadband services for the state's K-12 schools and libraries network.

DT 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 Consortia applications 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 website 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, DT 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 are used to pay the vendors responsible for supplying network access to connect public schools and libraries with private-side wide area network (WAN) capacity. These networks meet a number of local needs and connect the schools and libraries to a central hub which, in turn, links each site to the Internet and access to numerous state resources. The funding support offered by the E-Rate program is essential to the continued expansion of education technology in schools and libraries statewide.

Bandwidth Monitoring Program

The K-12 School Technology Initiative has continued its efforts to ensure that

connectivity and Internet bandwidth are best being used to serve the state's educational needs. These services, offered by Initiative partner Division of Technology (DT), provide security and monitoring of the Internet bandwidth utilization. As part of this service, DT 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.

"The goal is to ensure our schools and libraries have the technology foundation they need, the user and data security they deserve, and the cost-effectiveness tax-paying citizens expect."

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.

4. PROFESSIONAL DEVELOPMENT

South Carolina Technology Plan Goal:

Improve teacher and administrator integration technology in the classroom, administration, and overall learning process.

Partner Efforts to Support the Goal:

The intricacies and rapid evolution of K-12 classroom technologies place an increasingly heavy burden on the shoulders of educators. The process of training and deploying technology-savvy K-12 teachers and administrators begins in higher education degree programs and must continue post-graduation and hiring to become an ongoing facet of the educator's career path.

Today's graduates of university education and library/information sciences programs are, almost without exception, digital natives, having been born and educated in the era of personal computers and the Internet. While this familiarity helps facilitate their initial approach to classroom learning technologies and tools, the ever-accelerating pace of technological advancement does not allow education professionals to relax in their pursuit of mastery of new tools and techniques.

A major element in the mission of the South Carolina K-12 School Technology Initiative is to provide opportunities for classroom teachers, media specialists and administrators to deepen their knowledge of, and expertise with, emerging trends in educational technology. School administrators must be able to select the most mature and effective technologies available in order to maximize learning outcomes and stretch technology budget dollars. Teachers must be capable not only of orienting their students toward the use of such tools, but must interact efficiently and seamlessly with their students on these platforms.

> *"Given the competing demands on educator's schedules, on-demand professional development is critical to their ability to foster positive educational outcomes for their students."*

Given the limited time available to educators and the competing demands on their schedules, on-demand professional development is critical to their ability to foster positive educational outcomes for their students. In an effort to help aid in this capacity, K-12 School Technology Initiative partners provide a broad range of professional development opportunities

from upgrading basic technology skills, to obtaining recertification and graduate credits. A combination of formal, face-to-face training and online, on-demand courses enable educators to fit technology training into their hectic schedules.

ETV Teacher Courses Searchable Site

South Carolina's educators can save valuable time and effort in finding certificate renewal and graduate level courses through the use of the new South Carolina Educational Television (SCETV) Teacher Courses Searchable Site. Through this site, educators can not only search by curriculum interest and credit needed, but can even readily find out if the course qualifies for technology credit. One click on the course title and educators can find course descriptions, cost and also access to easy enrollment with the option to pay online.

The ETV Teacher Courses Searchable Site contains all courses offered by ETV Teacher Recertification, Teacherline Southeast and TeacherStep. There are courses for 20, 40 and 60 renewal credits and also courses that offer one to three hours of graduate credit through affiliated colleges and universities. Special ETV technology training and courses that meet Program of Alternative Certification for Educators (PACE) requirements are also easily identified.

ETV is committed to serving South Carolina districts, schools and educators by providing quality professional development to meet the needs of our teaching professionals, who

impact learning each day in classrooms across the state.

To learn more about ETV Teacher Courses, please visit scetv.org/teachercourses.

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 2013-14, as in years prior, 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 highly used 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 clusters created by the U.S. Department of Education. Ferguson's also includes links to current job postings and searchable entries on scholarships, internships, and more. LearningExpress Library is an interactive tool that provides practice tests, tutorials, and

eBooks 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.

Discus continues to provide resources that appeal to a broad range of South Carolinians, such as Auto Repair Reference Center, MasterFILE Premier and Small Business Reference Center. Auto Repair Reference Center provides information on both domestic and imported vehicles and MasterFILE Premier contains a large collection of publications on topics of general interest. Entrepreneurs will find up-to-date information on topics related to starting and managing small businesses in the Small Business Reference Center.

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

To learn more about South Carolina State Library's Discus, please visit www.scdiscus.org.

PBS TeacherLine Southeast

South Carolina Educational Television (ETV) is a course provider of PBS TeacherLine, an outstanding resource of online graduate level professional development courses for teachers in South Carolina, Georgia, and North Carolina. During 2013-2014, TeacherLine's services were highlighted at three educational conferences and information was provided

at other conferences and training events throughout the state. Marketing efforts also included continued email promotion and social media outreach through Facebook and Twitter.

ETV's TeacherLine program provided 447 PBS TeacherLine course seats for a total of 16,479 instructional hours, including three locally-offered courses by ETV, with a total enrollment of 42 participants. During the year, the ETV-operated TeacherLine website, www.teacherlinesoutheast.org, generated 22,335 visits by 16,519 unique visitors for a total of 55,242 page views, including 6,304 visits by returning visitors. Over 70 standards-based PBS courses that span the curriculum – including mathematics, reading/language arts, science, instructional technology, and strategies – were pre-approved for South Carolina recertification and graduate credit.

To support child development, ETV offers PBS Teacherline professional development resources for pre-service and in-service teachers in districts located throughout the state. Each week ETV broadcasts 85 hours of "safe haven" PBS programming for our youngest learners while providing a wide range of online media-rich content for children and their families. All of the PBS Kids programs have accompanying websites and mobile apps targeting children and are created to teach.

To learn more about TeacherLine Southeast, please visit www.teacherlinesoutheast.org.

### Online Professional Development for Certified Staff

The South Carolina Department of Education's (SCDE) Office of Virtual Education recognizes the importance of improving teacher technology proficiency in an effort to help ensure students are receiving the appropriate instruction to become productive citizens in the 21st century. The Office of Virtual Education has continued to offer online professional development offerings for certified staff in the state, consisting of technology integration courses and courses that help to lead to the Online Teaching Endorsement for South Carolina certified teachers and administrators. Courses are offered for both renewal credits and graduate credit to assist teachers in renewing their teaching license, and are taught by current classroom or former classroom teachers that have demonstrated exemplary skills in integrating technology into their daily lessons.

The main purpose of taking courses through the SCDE program is to ensure teachers have the skills to enhance their daily instruction by including technology in every way possible for the benefit of students. Through these courses, we can be more assured that our teachers are preparing their students to not only become good digital citizens, but to also be prepared with 21st century skills.

The Online Professional Development for Certified Staff program currently serves over 3,000 teachers annually and is growing rapidly. This year the program has been expanded to offer several new programs including an option for rolling enrollment, which allows teachers to enroll in a course at any time and begin work right away. Through this option, teachers have a flexible schedule to complete the coursework on their own timeframe within a sixty day period. Teachers are given pre-assessments and post-assessments to ensure they are learning new skills to embed technology into their classrooms.

Each course is designed to be completely competency-based, which means each teacher will have an individualized experience in the course based on their needs and the skills they already possess. Teachers that are more advanced in technology will learn new skills and more advanced topics, while teachers that are just learning the basics of technology will see more basic level topics to ensure each teacher is receiving the coursework and material that best
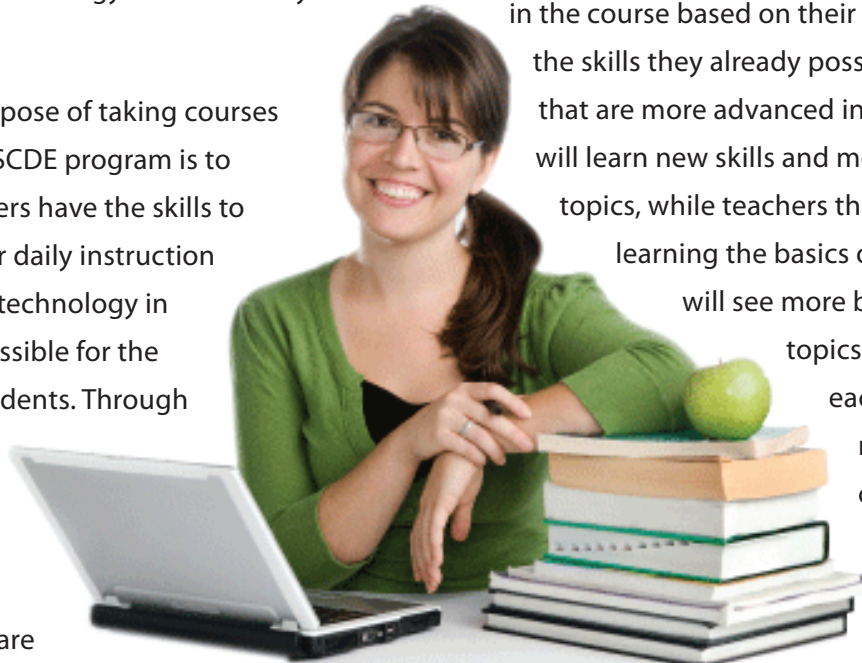
enhances their learning. Several courses such as this have already been developed and are being offered.

Courses currently offered on a rolling-enrollment basis include Practical Applications of Microsoft Word 2010 and Higher, Practical Applications of Microsoft PowerPoint 2010 and Higher, Practical Applications of Microsoft Excel 2010 and Higher, and Open Educational Resources for Teachers. In addition, the office has focused on working with individual schools across the state to offer the Intel Essential Elements series to their teachers as well as courses to teach about tools used for Accessibility and Universal Design. Schools and districts that worked with the office to provide professional development include the Greenville County School District, Spartanburg School District 2's Chesnee Elementary School, and Charleston County School District's Lambs Elementary School.

SCETV Teacher Training

It is vitally important to the success of the state's K-12 educational 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.

SCETV 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. In addition, SCETV added a new blended training series introduced at the end of the 2013-14 school year.

Classroom and hands-on training services offered through SCETV include assessing training needs; conducting school, district-wide and regional training for educators on how to use the educational content; and technology to improve teaching and learning. This year 5,842 teachers and media specialists participated in ETV's face-to-face training. In addition, ETV, Public Broadcasting Service (PBS) and the ETV Endowment offered online graduate level professional development courses for teachers.

Through the Moodle Learning Management System, ETV provided over 40 online courses and teacher recertification offerings that supported interactive training opportunities. ETV's Teacher Recertification courses provided renewal credit for 926 educators.

During the summer of 2014, 13 weeklong, hands-on teacher workshops were offered as a premium blended recertification package. Training took place in school districts across the state, reaching K-12 teachers in public, private and home schools. Participants were surveyed about the content and value of the

K-12 School Technology Initiative 2013-14 Progress Report

training. ETV set up online courses, developed and implemented payment/enrollment processes, and managed customer service for the online recertification courses housed on ETV's online course management system.

ETV also opened its new Idea Lab during the summer of 2014. Through this newly remodeled state-of-the-art classroom located at ETV's Telecommunications Center, hands-on training is offered to the state's teachers, including weeklong courses on ETV services using the Internet, iPads and free web-based tools and applications. The Idea Lab features all-new mobile devices, laptops and tablets in a wireless environment, and can also be utilized for receptions, meetings and conferences.

Discus and StudySC Professional Development

The South Carolina State Library (State Library) offers technology integration professional development opportunities for teachers, counselors, librarians and media specialists through a variety of means including Discus and StudySC presentations at conferences, instructional fairs, and technology forum exhibits. Presentations have also been made to the South Carolina Independent School Association (SCISA), the South Carolina Association for the Education of Young Children (SCAEYC) as well as to students in 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 assistance.

Educators had access to 83 Discus professional development opportunities delivered online and via live sessions and presentations, with 567 educators participating. In addition, exhibit booths at five major statewide conferences targeted to K-12 participants further extended the Discus and StudySC message to 605 booth visitors.

5. COLLABORATION OPPORTUNITIES

South Carolina Technology Plan Goal:
Identify innovative ways for state agencies, local school districts, schools, families, and local businesses to collaborate to enhance the learning experiences for the students of South Carolina.

Partner Efforts to Support the Goal:
Educating the children of South Carolina is clearly a team endeavor and the core of that team consists of students, teachers, parents and administrators. The educational team, however, is much broader than that and includes a variety of other components including; public libraries that provide invaluable support to students and their families, and a broad coalition of entities that advocate for and help provide assistance for children with learning disabilities, physical and emotional challenges and socio-economic disadvantages.

At the core level, the South Carolina K-12 School Technology Initiative leverages information technology and connectivity to enhance collaboration within school districts, between districts and the State Department of Education, and with surrounding communities. Initiative partners work to raise public awareness of the successes of public education as well as the challenges facing

it, seeking to enlist all South Carolinians in the effort to provide our children with an education that will make them competitive and productive players in today's knowledge-based economy.

SCETV Public Awareness Efforts

In an effort to inform citizens about the availability of educational programs, services and technologies, South Carolina Educational Television (SCETV) and ETV Radio share stories of projects that serve to address the needs of teachers and students throughout the state. A number of national and statewide television series and educational specials – including ETV's Palmetto Scene, Education Insight, Speaking of Schools and, in 2015, Carolina Classrooms – are broadcast and archived for use in schools and classrooms, providing significant reach to audiences of ETV and ETV Radio. Content provides case studies and best practices for use throughout the state. Promotion of these programs and services were provided through a variety of platforms, including ETV communications, educational websites and broadcast interstitials, as well as community education outreach efforts through K-12 conferences, presentations and awards.

In January of 2014, ETV launched Education Insight, a four-part television series designed for teachers, educators and parents. Video segments in this series featured educational initiatives in South Carolina schools including those geared towards early learning, adult education, and literacy. State and local educators, as well as policy and business leaders, participated in this effort. Radio broadcasts of educational content included Walter Edgar's Journal, South Carolina A-Z and SCDE's Speaking of Schools.

Palmetto Scene, ETV's weekly news and public affairs series, frequently features education-related stories which are archived on the Palmetto Scene website for subsequent use. One such feature was a series of three programs titled WhatWorksSC, which served to highlight successful educational initiatives including stories about the Chester Park

Elementary School of Inquiry's project-based learning initiative, the Parent as Teachers model and the Teacher Cadet Project. The series also includes video segments and blogs on such topics as school bullying, Oakdale Elementary's Bricks 4 Kidz project, Apprenticeship Carolina, Communities in Schools of Greenville Bridging the Gap and the Center of Excellence to Prepare Teachers of Children of Poverty. In addition, Palmetto Scene highlighted the K-12 School Technology Initiative project to bring high-speed fiber connectivity to Baptist Hill Elementary School (James Island), a major logistical feat which involved crossing water and formidable terrain to bring 21st Century learning to the Charleston County area island.

To learn more about Palmetto Scene education stories, please visit palmettoscene.org/category/education.

Click to view SCETV's Palmetto Scene viedo on Baptist Hill Elementary School, or visit
https://www.youtube.com/watch?v=LxbbJ3jb3aM&feature=youtu.be (SCETV)

6. REPORT CONCLUSION

Few environments in our society have undergone more profound change in the last two decades than have our K-12 schools and public libraries. The South Carolina K-12 School Technology Initiative has played – and continues to play – a unique and invaluable role in helping the state's schools and libraries respond effectively to new challenges.

To that end, the Initiative leverages state allocations and Federal e-Rate funding, the technical expertise of state government and private sector telecommunications and IT organizations, the educational know-how of the State Department of Education, the Education Oversight Committee, the State Library, and SCETV.

Much has been accomplished in the effort to transition K-12 education in South Carolina into the digitally connected era and into alignment with our knowledge-based economy. Yet much remains to be done, as educational technologies and rich content continue to rapidly evolve while the demand for more robust, ubiquitous, broadband connectivity to support learning within and beyond the walls of school facilities increases exponentially.

Plans to help strengthen our economy by attracting leading industries and jobs to the Palmetto State hinges on our schools producing graduates who can function effectively in technologically advanced, information-intensive environments. Achieving this goal will require both bold educational and technological initiatives as well as steadfast programmatic and budgetary support from our state's leadership.

APPENDIX A: FY15 INITIATIVE BUDGET

Principals Summary
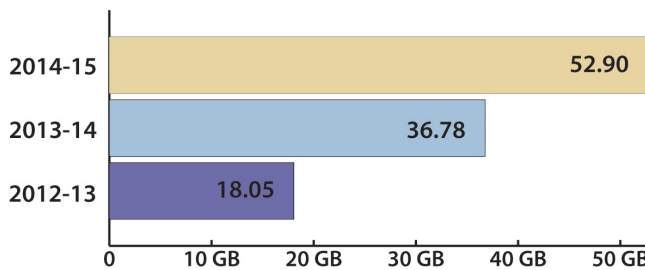
FY15   K-12 Technology Initiative Budget Plan

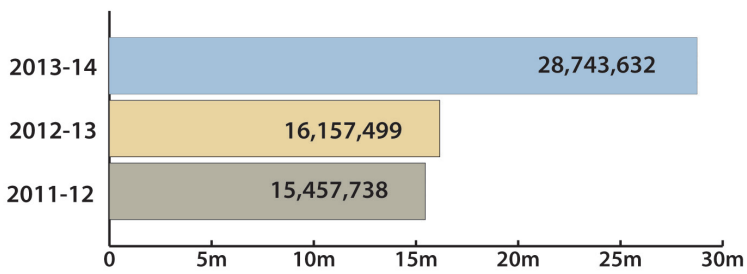| FY15	
Funds Available via Direct Appropriations:	
State Library	$1,960,095
SCETV	$4,829,281
Base Appropriation: School Technology	$10,171,826
Total Appropriations :	**$16,961,202**
Carry Forward:	
State Library	$0
SCETV	$0
SCDE	$509,375
B&CB / DSIT	$0
Total Carry Forward :	**$509,375**
Total Available Funds:	$17,470,577
E-Rate Funds (Estimated)	$23,675,000
Total Funds Anticipated:	$41,145,577
Total Budget Requested:	$41,145,577
Net Remaining funds:	**$0**

Priority	Principals Budget Requests	Budget Requests	Direct Appropriation Allocation	School Technology Appropriation	E-Rate Funds (Estimated)	Approved Budgets
	B&CB / DTO (FKA DSIT)					
1	Network Connectivity	$32,096,000		$8,421,000	$23,675,000	**$32,096,000**
2	E-Rate Field Training	$500		$500		**$500**
3	Security Project for DIA/MIS	$653,587		$653,587		**$653,587**
	Total:	**$32,750,087**		**$9,075,087**	**$23,675,000**	**$32,750,087**
	STATE LIBRARY					
1	DISCUS	$1,960,095	$1,960,095	$0		**$1,960,095**
	Total:	**$1,960,095**	**$1,960,095**	**$0**	**$0**	**$1,960,095**
	SCDE					
1	Virtual School Learning Mgnt System	$250,000		$250,000		**$250,000**
2	Virtual School Student Information System	$250,000		$250,000		**$250,000**
3	Virtual School Digital Instructional Materials	$400,000		$400,000		**$400,000**
4	Virtual School Online Live Instruction System	$105,000		$105,000		**$105,000**
5	Multimedia Platform & LMS Integrations	$100,000		$100,000		**$100,000**
6	Virtual School Digital Instructional Materials (Digital Resources for Teachers)	$100,000		$100,000		**$100,000**
7	Course Video Development, Mobile Development and Design Software	$110,000		$110,000		**$110,000**
8	Professional Development Instructional Materials and Training	$215,000		$215,000		**$215,000**
	Total:	**$1,530,000**		**$1,530,000**		**$1,530,000**
	SCETV					
1	ETV Infrastructure & District Technical Support	$2,000,000	$2,000,000	$0		**$2,000,000**
2	Teacher Training, Education Content Creation & Aggregation	$2,829,281	$2,829,281	$0		**$2,829,281**
3	Curriculum K12 Activities and Project Modules Platform	$237,840	$0	$237,840		**$237,840**
4	StreamlineSC Content Subscription	$400,000	$0	$85,149		**$85,149**
	Total:	**$5,467,121**	**$4,829,281**	**$322,989**		**$5,152,270**
	Pilot Projects					
	Online Digital Music Curriculum	$545,000		$262,500		$262,500
	Total Carry Forward From Previous year:	**$0**		**$ (509,375)**		**$ (509,375)**
	Grand Total:	**$42,252,303**	**$6,789,376**	**$10,681,201**	**$23,675,000**	**$41,145,577**
	* Net Appropriation Allocation		*$0*		**Balanced**	

Growth of Bandwidth Demand in School Districts

Year	Value
2014-15	52.90
2013-14	36.78
2012-13	18.05

0 10 GB 20 GB 30 GB 40 GB 50 GB

Discus Usage (Items Retrieved)

Year	Value
2013-14	28,743,632
2012-13	16,157,499
2011-12	15,457,738

0 5m 10m 15m 20m 25m 30m

South Carolina State Library

StreamlineSC Utilization (Resources Used)
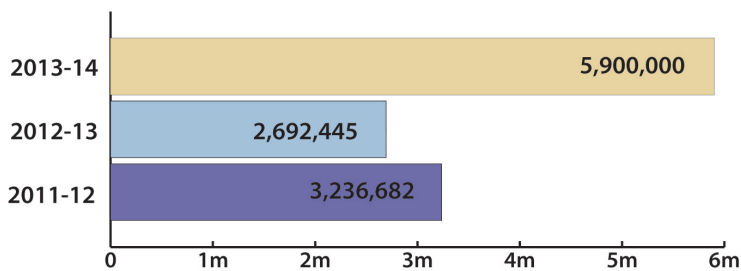
Year	Value
2013-14	5,900,000
2012-13	2,692,445
2011-12	3,236,682

0 1m 2m 3m 4m 5m 6m

Note: Additional assets (non-video and interactives) were included for the 2013-3014 reporting period. These measurements were not included in the earlier reporting periods (SCETV).
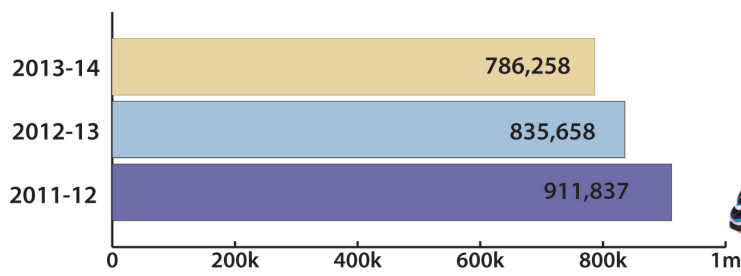
APPENDIX B:
BY THE NUMBERS

Knowitall Utilization Comparison

	2011-12	2012-13	2013-14
Visits	911,837	835,658	786,258
Page Views	4,474,721	3,564,622	3,248,591
Unique Visitors	783,816	640,070	636,646

Note: Knowitall has been in existence for 12 years and is not mobile friendly. The reduction in use is due to aging content. Now most users access resources on mobile devices. ETV is revamping the Knowitall site during 2015-2016 to make it user friendly (SCETV).
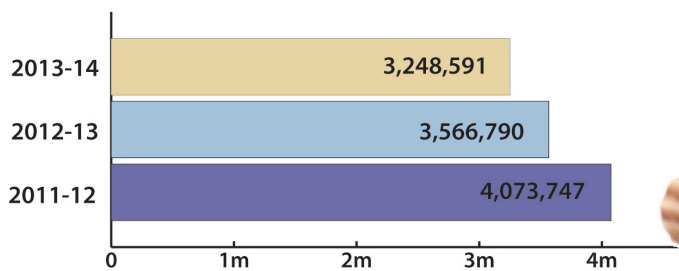
Knowitall Utilization (Visits)

2013-14 786,258
2012-13 835,658
2011-12 911,837

0   200k   400k   600k   800k   1m

South Carolina Educational Television (SCETV)

Knowitall Utilization (Page Views)

2013-14 3,248,591
2012-13 3,566,790
2011-12 4,073,747

0   1m   2m   3m   4m
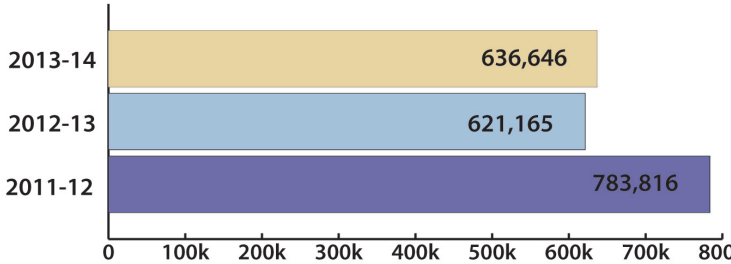
South Carolina Educational Television (SCETV)

APPENDIX B:
BY THE NUMBERS

Knowitall Utilization (Unique Visitors)

Year	Value
2013-14	636,646
2012-13	621,165
2011-12	783,816

0 100k 200k 300k 400k 500k 600k 700k 800

South Carolina Educational Television (SCETV)

StudySC Visits

Year	Value
2013-14	96,075
2012-13	89,122
2011-12	53,671

0 20k 40k 60k 80k 100k
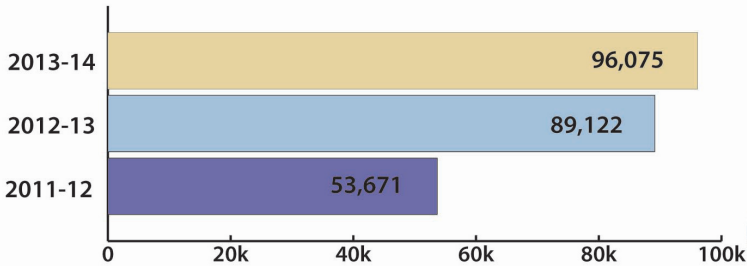
South Carolina State Library

VirtualSC Enrollment History

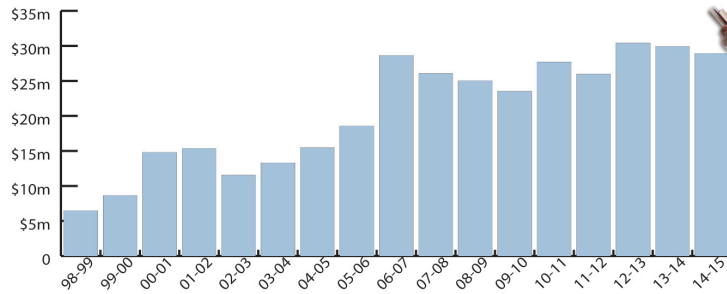| Year	Value
2013-14	22,107
2012-13	16,800
2011-12	15,829

0 5k 10k 15k 20k
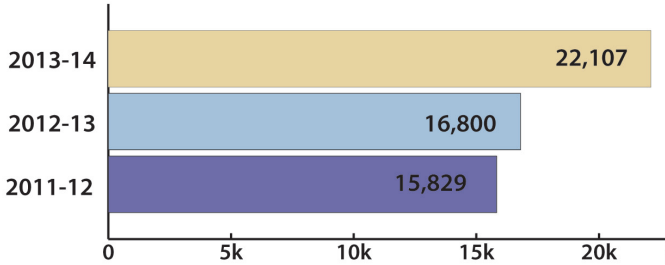
South Carolina Department of Education (SCDE)

APPENDIX B:
BY THE NUMBERS

E-Rate Funding Year Commitments

APPENDIX C: INITIATIVE MILESTONES

1996-97

- 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.

1997-98

- 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.

1998-99

- 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 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.
- 67 percent of South Carolina classrooms were connected to local-area computer networks (LANs), compared to 53 percent 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.

1999-00

- 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 percent of all state K-12 schools have digital satellite reception.

APPENDIX C:
INITIATIVE MILESTONES

2000-01

- 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.

2001-02

- 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 Corporation for Public Broadcasting helped SC communities find solutions to address the dropout crisis.

2002-03

- 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).

2003-04

- All state school districts were fully implemented and running SASIxp.

- The Division of State Information Technology (DSIT) 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 (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.

- SCDE's Office of Technology released a new SASIxp template and the Data Collections Manual, initiated quarterly collections and bean 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.

2004-05

- SCDE's ePortolio 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.

2005-06

- 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.

2006-07

- The South Carolina Virtual School pilot was officially launched by the SCDE.

- SCETV's Knowitall.org celebrated its 10 millionth hit.

- SCETV's Knowitall.org launched two new sites, Knowitall Healthy! and Road Trip!

2007-08

- 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 DSIT 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)

2008-09

- 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.

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

2009-10

- 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.org portal had 6.01 million views in FY 2009-2010.

- SCETV's Web of Water site, part of Knowitall.org, 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.

- DSIT 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 Sate 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 SCETV's IP Media server technologies.

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

2010-11

- 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.

2011-12

- SCETV 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 school districts in the state.

- SCETV develops and institutes an agreement to migrate 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, SCETV inventoried over 100,000 physical and electronic assets and compiled a database of metadata that SCETV 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.

2012-13

- Partners participated in TransformSC initiative

- SCETV partnered with Lexington School District 4 to provide literacy resources for their pre-K and K-3 students to include scholarships for facilitators of PBS "Raising Readers: Preparing Preschoolers for Success." This initiative addressed reading proficiencies and works directly with classrooms and the afterschool alliances in the district. This project is replacable in other districts.

- SCETV secured and hosted a second grant from CPB for a new SCETV American Graduate Youth Media Summit and Civil Rights Forum in the spring of 2013. Student interviewed civil rights veterans which were archived as part of SCETV Civil Rights History inventory.

- SCETV added a new K-12 service, PBS LearningMedia, a media-on-demand service that features PBS award winning content.

- SCETV added a new social media site to support Common Core. The site uses Edmodo for teachers to share activities, best practices and useful web sites.

- SCVSP legislation was amended to lift the credit limitations placed on students. As a result, students are not limited on the number of credits that a student may earn toward a high school diploma through the program.

- SCVSP piloted eighth grade English and Math Intervention courses with approximately 150 students in two districts. As a result of this success, sixth and seventh grade English and Math Intervention courses were developed and offered in the summer of 2013.

- SCVSP partnered directly with schools to offer blended learning opportunities to help schools fulfill several needs from budget cuts, reduced funding and unfilled teaching vacancies at smaller

schools across the state.

2013-2014

- ETV executed a statewide Teacher Survey with over 2,000 participants from 83 districts; plus charter schools, an independent private school, Department of Education, Palmetto Unified and S2TEM Centers. ETV was seeking to learn ways teachers were using K-12 resources; areas needed and valued in professional development; and the importance of Internet access.

- ETV Education, working with the state's Education Oversight Committee (EOC), added a new monthly newsletter, subscribed to by 73,003 teachers and staff, to assist in informing teachers of timely resources and services.

- ETV created a new TeacherCourses website (scetv.org/education/teachercourses/) for teachers to easily search and find the relevant recertification credit they need. The site searches ETV's Teacherline Southeast, Teacher Recertification, and TeacherStep offerings of over 85 online and blended courses from 20 to 60 renewal credits.

- ETV began offering week long recertification courses during the summer of 2013, using a blended hands-on web based curriculum called "Using Video in the Classroom." For the summer of 2014, ETV added a similar course called "iBloom: Using the Internet and iPads to Support Bloom's Taxonomy," which covered the use of free web tools and apps to use in the classroom for Project Based Learning and Flipping the Classroom.

- ETV introduced a simplified and improved OnePlaceSC website (scetv.org/education/oneplacesc/), no longer requiring a teacher to log-in and locate or record the resources they need to facilitate learning.

- SCETV was awarded an 18 month $200,000 grant from the Corporation for Public Broadcasting for "American Graduate: Let's Make It Happen." SCETV, one of 33 hub stations nationwide, will convene groups across the state working to improve outcomes for students from cradle to career. Reports on those efforts will be broadcast on television, radio and the Web.

APPENDIX D:
WHAT OTHERS ARE SAYING

Discus (State Library)

- "Best online resource in SC! Don't stop!"
    - *– James McTeer, Polo Road Elementary School, Richland School District Two*

- "We cannot afford online databases and therefore use Discus extensively. We could not research if we did not have Discus."
    - *– Sharmen Oswald, Gilbert Middle School, Lexington County School District One*

- "Resources have become much more accessible online."
    - *– William P. Scoggins, Limestone College*

- "Awesome resource for a 1:1 school!"
    - *– Cindy Haggerty, Welcome Elementary School, Greenville County Schools*

- "We use Discus every day!"
    - *– Kathleen DuRant, Crestwood High School, Sumter School District*

- "It has made research much more convenient and user-friendly."
    - *– Binta Osbey, Crosswell Elementary School, School District of Pickens County*

- "My teachers working on Masters Degrees love having Discus!"
    - *– Dana Whelchel, Liberty Middle School, School District of Pickens County*

- "Gained access to research resources safely."
    - *– Colleen Beck-Ungvarsky, Beaufort County School District*

- "Kids LOVE Searchasaurus."
    - *– Suzy Dover, Gateway Elementary School, Greenville County Schools*

- "All of my teachers and students LOVE Discus! They use it for research, lesson planning, and fun!"
    - *– Kelly Knight, Fork Shoals School, Greenville County Schools*

StreamlineSC (SCETV)

- "I received enough 'free' resources, including Learn360, to provide effective learning to my students and enough material to keep them engaged. I've already recommended the course to other teachers in my school."
    - *– Melissa Fulmore, Florence School District*

- "StreamlineSC has changed the way we present information to our students. The use of StreamlineSC is critical to our school district. The service affords teachers the ability to give information in another modality so that students can more easily understand materials covered in class"
    - *– Peggy Ford, Lake View High School, Dillon School District Four*

- "Streamline has really helped students with listening and interpreting what they see and hear."
  — *Elizabeth Witherspoon, Wellford Academy, Spartanburg 5 School District*

Knowitall.org (SCETV)

- "I use Knowitall's Carolina Connections and Let's Go! for classroom instruction. I like using the resource because of ease of use."
  — *Robert Anderson College and Career Academy, Anderson School District Five*

- "Gullah Net, Let's Go!, Artopia, and Kids Work! are used for individual exploration by students during computer lab. I use Knowitall for the fun online activities and like having lots of resources in one place."
  — *Amy Bedenbaugh, Lexington County School District Three*

- "I love Natural State and often use Gullah Net. The other second grade teachers and I thought they were wonderful resources when teaching folktales. I use it to help my students with personal assignments at home, too. I love that they are free and they are local."
  — *Ashley Fort, Batesburg-Leesville Primary School, Lexington County School District Three*

SCETV Training

- "The ETV Technology Conference sessions were tremendously beneficial! I walked away with a new enthusiasm for my job and cannot wait to share what I've learned with my students. Thank you for bringing together such knowledgeable professionals. This is a truly QUALITY event."
  — *Kristea Schwartz, teacher, Fort Mill School District*

- "Every ETV workshop I've been to has been most pertinent to me and my job. I've participated in numerous presentations and training as well as arranged training for the teachers in my district. The most common comment is 'that was the best training I've ever attended! I learned so much - I want more!'"
  — *Cindy Hughes, Greenwood School District 50*

- "I am taking the science class with Mr. (Rudy) Mancke and many of the video lessons I've viewed can be integrated into my lessons. Mr. Mancke explains science in context and with visual aids that makes it easier to understand."
  — *Student Testimonail*

TeacherLine (SCETV)

- "I was challenged in my course as in many that I have taken under the university banner. I loved the time frame, loved the cohort (they were so generous with their kind suggestions and encouragement), and our facilitator was so good at getting back to us with useful and timely information."
  — *Lynette Smith, ESL certification, Med*

- "I thoroughly enjoyed all of the courses I took through PBS and really learned a lot. They were very worthwhile classes. I would highly recommend PBS Teacherline to anyone who is looking for professional development."
  — *K. Bolding, Anderson School District One*

- "I took my first TeacherLine Course, Curriculum Mapping I, because I saw a need for us as a school to start re-thinking the skills we want students to learn in our courses. Curriculum Mapping helped me to sit back and realize that the content, skills and assessments in our curriculum all need to be balanced with new technology expectations. The courses from TeacherLine have given me a convenient way to blend time spent professionally learning with time needed to reflect and prepare for my duties as a technology coach.
  — *Adam Babcock, Spartanburg High School & Freshman Academy, Spartanburg District Seven*

VirtualSC (SCDE)

- "I'm really glad that the VirtualSC program was there, because without it I wouldn't be able to graduate."
  — *Student Testimonial*

- "I personally enjoyed the online course through the VirtualSC program. It was an amazing experience. I loved it, and it was very fun and a great learning exercise for those who want to take online classes."
  — *Student Testimonial*

- "This was the first time my son took a course with the virtual program. I must say it was a very transparent experience and anytime he had a problem with something the teacher responded either through the virtual email or Skype. I look forward for the law to be passed increasing the number of courses to be taken during a school term."
  — *Parent Testimonial*

- "Our school has used VirtualSC since the beginning. I love the idea of credit recovery being available for continuous sign up. This serves a great need. Thanks for all you do!"
  — *Guidance Counselor Testimonial*

E-Rate Training (DT)

- "I am trying to keep up with changes and I know how much our original training in 2011 helped, so I am looking forward to training again."
  — *Denise H. Bedenbaugh, Director - Lexington County Public Library System*

Bandwidth Allocation Policy Changes

- "This is excellent news. I am very glad the state is funding this bandwidth upgrade of up to 20 mbps at each branch in our library system. I am absolutely delighted by the prospect of this increased bandwidth service for our local citizens."
  — *Dwight McInvaill, Director - Georgetown County Library*

South Carolina K-12 School Technology Initiative
4430 Broad River Road, Columbia, S.C. 29210
Website: https://sck12techinit.sc.gov