Fayette County Schools

Fayetteville, Georgia

Three-Year Technology Plan

July 1, 2014 - June 30, 2017

August 12, 2013

Superintendent

Dr. Joseph Barrow

I. Vision for Technology Use

Fayette County Schools Strategic Technology Planning Committee consists of a member of the Board of Education, two assistant superintendents, five principals, three teachers, and received input from students and parents. This committee developed the following information in shaping the district's alignment of technology with the Keys to Quality.

Vision: The Vision of FCBOE's Technology Services is to promote technologies for

- Streamlining leadership of the district through unified applications
- Enhancing standards-based, constructivist instruction, delivered by teachers who authentically embed up-to-date technologies
- Connecting students with access to personalized learning resources when and where they learn.

Mission: Maintain a secure, reliable, high-speed network connection for each administrative section and classroom within the district, to support administrative reporting requirements, teaching and learning.

Goals: Appropriately embed technology into curriculum, instruction, and assessment so our students are capable of living and working effectively, responsibly, and productively in a global environment.
Use technology to accelerate and personalize learning in keeping with the visionary approach of a world-class school system.
Use technology services for the efficient operation of all functions of the Fayette County School System.
Plan for the future within the district using technology resources and by ensuring those resources remain as modern as practical.

Priorities: Broadband access throughout the district.
Personalized learning as a common practice.
Data access to monitor student progress through leading rather than lagging indicators, thus identifying specific needs and interventions.

Annual Measurable Objective(s) (AMOs):

- Provide applications integrated into a sequenced and organized curriculum. (C 1.1)
- Share "Best Practices" for using available applications/resources/technologies to ensure achievement for all students. (I 2.1)
- Collaborate with curriculum coordinators in identifying and recommending aligned technology applications to enhance instruction and assessment. (C 2.2, A 2.1, A 2.2, A 2.3)
- Ensure student access to technology resources. (C 3.1, A 1.4)

- Develop and maintain a protocol to evaluate technology applications that enhance delivery of curriculum, instruction and assessment resources. (I 2.1, I 2.2)
- In conjunction with Curriculum and Instruction, assist in the use of technology to differentiate and reinforce higher order skills. (I 2.7)
- Work within the Technology Committee to ensure availability of sufficient resources to achieve the district goals and maintain fiscal responsibility. (PO 3.1, PO 3.2)
- Evaluate and implement modern technologies into the district's community communications. (SFC 1.1)
- Support professional learning using modern technologies. (PL 1.1)
- Assist in developing and directing professional learning to embed modern technology into instructional practice. (PL 3.2, PL 3.4)
- Model the application, integration, and embedding of modern technologies in the community of learning. (L 2.3)
- Develop policies and procedures to facilitate the district vision for technology. (L 2.1)
- As necessary, bring national, state, regional and local resources to bear on technology issues impacting teaching, learning and leading. (L 3.3, L 4.3)
- Facilitate the timely and accurate reporting of students (FTE), and district assets (personnel, real property, funds) to the appropriate regional, state and national education agencies.

These elements were provided as part of the District's Strategic Plan and were incorporated into the accreditation processes of the district. They are accepted as the strategic, operational and daily direction for technology services within the district.

II. Current Realities

Network Reality

The district's network offers Gigabit connectivity on the local side, WAN connectivity at 100 megabits from each of the 14 elementary schools, and 500 Megabits from each of the 10 secondary schools. The district's administrative connections at four locations, round out the network services. Those four locations share the 100 Megabit connection provided to the district by GaDOE off the state network.

Over the last three years, the district made a concerted effort to consolidate into a single domain across the district, centrally manage the network, to virtualize operations where it made sense, and to generally move into a more structured technology environment. These moves allowed the district to more closely adhere to industry established best practices, reduce expenditures in times of fiscal constraints, and manage an expanding network and resources with a staff that is undersized for the population served. The infrastructure within the district should continue to improve through the use of the funding from the Education Special Purpose Local Option Sales Tax (eSPLOST) passed by voters in 2008 and renewed in 2012. The Technology Services portion of those revenues is partially targeted toward modernization of the network. The district's 2010/2011 eRate application included an RFP for increasing the available bandwidth up to 1

Gigabit to the Internet. Educational Networks of America (ENA), the winning respondent to that RFP, offered those services at a price much more competitively than the state contract. Although these are leased services, and cannot be funded by eSPLOST revenues, the eRate processes have assisted the district in identifying vendors who are willing to expand services into the district, and potentially build out a network that would belong to the district. Without such expansion of bandwidth and faster connectivity at the school level, the district will continue to struggle with the complete array of Web 2.0 tools available for teaching and learning.

Our current network was built to accommodate the administrative needs of the district and was never intended to be an instructional network. The network renewal project in 2007-2008 attempted to alleviate bottlenecks and moved the district from frame relay to fiber. The result was improved connectivity throughout the district and an increase of bandwidth to the schools, but that improvement was short-lived, as increased demand created a network that became full in a very short period of time. Leasing additional bandwidth from ENA significantly improved network performance, as has vigilance with network additions, but demand continues to outpace capability. With the 21st Century Classroom initiative in place, we have set the stage for a pedagogical paradigm shift to occur within our school district. District teachers now have access to modern instructional technology tools, and with all teachers meeting the instructional technology requirements, we must shift from learning about technology to learning how our students learn with the digital tools available to them.

The district's weak area now lies with inadequate bandwidth to support ubiquitous learning opportunities inherent to today's learner. Educators across the world are transforming their classrooms using Web 2.0 tools, real world project-based learning activities, as well as gaming and simulation tools in an effort to make instruction relevant and motivating to their students. In order for this pedagogical paradigm shift to occur, the district's network must provide adequate bandwidth. Effectively embedding of technology is only achieved when teachers and students are able to select technology tools to help them obtain information in a timely manner, analyze and synthesize the information, and present it professionally.

For all stakeholders, online technology should become an integral part of how the classroom functions and should be as easily accessible as all other classroom tools. The following scenarios are examples of how district teachers must use web based tools to make instruction relevant, aligned to standards, and that require higher-level thinking skills.

- Ms. Roswell introduces a unit on Civil Rights using a video segment from Discovery Education on *Heroes of Today and Yesterday: Rosa Parks and the Civil Rights Movements*. This teacher also uses the 21st Century Classroom equipment to further introduce the concept of the Civil Rights Movement by going online to the National Civil Rights Museum which offers an on-line interactive tour entitled "The Unremitting Struggle." The tour highlights features exhibits of the museum. The museum presents a timeline of the civil rights struggle relating to African-Americans focusing on the crucial events of the 1950s and 1960s. The teacher encourages students to use the interactive pad to follow the interactive tour exploring the site. Additionally, the Classroom Performance System

(CPS) is used during the interactive tour to enhance engagement, to encourage whole class participation, to check for understanding of the issues during the 50s and 60s, and to compare those issues with similar issues today. The students research the Internet and use the information to create a glog at Glogster EDU. The glog will contain information on three events from a given time frame that they believe had an impact on African Americans and the United States. The glog then serves as a learning tool to teach their classmates about their highlighted events as well as encourage peer collaboration.

- Mr. Anderson's class is studying the structure of the earth's systems and effects of earth's natural forces. To introduce the unit, this teacher uses a video streamed Discovery Education video segment: *Enviro-Tacklebox: Module 4: Forces in the Environment: The Earth: Work in Progress*. During the course of the unit the class virtually visits the Pacific Northwest Seismic Network and chats with the center's Volcano Seismologist using a high definition (HD) instant video webcam. The students log in occasionally with a real-time image VolcanoCam of Mount St. Helens, taken from the Johnston Ridge Observatory. The Observatory and VolcanoCam are located at an elevation of approximately 4,500 feet, about five miles from the volcano. During the course of the unit the teacher has his student go to the class blogging website to respond to teacher and other student's posts about the project. Geologists, Nature Conservationists, or other local guests are invited to participate in the class blog.

- Mr. Garcia, a foreign language teacher, uses video "pen pals" with his foreign language classes. Students use a no cost video interface such as Skype to practice their Spanish with a native speaker. These "language partners" take turns speaking the languages they are learning as they discuss current events and native culture.

- Ms. Benefield has incorporated podcasting into classroom projects as a way to use twenty-first-century technology to build twenty-first-century skills. Her students use an audio recording attachment for an iPod or other MP3 player to create their own podcasts of their writing, research reports, essays, poems, and short stories. The students use editing software to add music, sound effects, video, and animation and then post the podcast online to share. These third-graders adapted written reports on the monuments of Washington, D.C., into a multimedia narrative history of the nation's capital and posted their podcast on the class website. Ms. Benefield's class connected with another elementary school in Scotland, and the two schools are now podcasting partners conducting joint projects on various social studies topics. Ms. Benefield's goal is to improve writing and feels that the potential for reaching an audience so far away "raises the bar for the quality of writing."

- Ms. Woods's class has been studying story elements and created book trailers for K-2 students to persuade them to read certain picture books that were currently available in the library. The trailers created by the students were filmed with a Flip Video camera and edited in MovieMaker. The trailers were then posted on the class website and shared with the K-2 students online.

- Ms. Geoff uses netbooks to revolutionize the way she teaches literature with her tenth grade English classes. Using netbooks, her students can access vast amounts of classical literature through the internet at no cost. Ms. Geoff uses reputable online sites to provide the complete unabridged text of some of the most famous literature in the world. In addition, these sites provide features that help students to understand the archaic language and allusions used in the text. By simply hovering over these features in the text, students are provided with detailed explanations of word meaning and historical references. In addition, Ms. Geoff's students use sites that take them on virtual tours of famous authors' lives. The capabilities of students to access and create blogs and wikis encourage continual collaboration and sharing. The English department uses the interactivity of Google docs to allow for real time revision of student writings, saving valuable time and allowing for a greater amount of feedback to students during writing workshops.

Although all these scenarios are currently available within the district, and there are pockets of excellence where these things occur, the challenge over the next three years will be to ensure responsible use of the available technologies by the students. The robust professional learning required to ensure teachers are fully capable of embracing this pedagogical paradigm shift, thus capturing the promise of engagement and achievement will require additional resources at the district level or a realignment of the structure of the roles and responsibilities of the curricular coordinators. The challenge for technology services will be to ensure the network supports the engagement of learning when and where students and teachers are gathered.

Online assessment tools such as ELA screening tools, math benchmarks, EOCT, OAS, USATest Prep, and SRI receive use throughout the district. Additionally, the district provides a Centralized Media Retrieval System (MediaCAST), Destiny, Scholastic Programs (Read 180, Read About, Reading Counts, Fast Math), a centralized media management system (Destiny) and Study Island are used throughout the county. Although they perform well on the LAN side of the network, additional resources within the network would improve performance with these resources as well.

Expansion of the capability of the network is a critical component to teaching, learning, and leading the district over the next three years.

Hardware Reality

With the passage of the eSPLOST in 2008, the district was able to refresh classroom computers from the first and subsequent leases initiated in 2005. The refresh included desktop virtualization capabilities allowing each student computer to serve three-five additional monitors, keyboards and mice. This improved the student to computer ratio, and particularly improved the ratio in the middle and high schools. Overall, the district enjoys a modern computer to student ratio of approximately 1: 2, better than the state desired 1:3 ratio. A more detailed analysis of the data shows the schools with the best ratio of computers to students are the elementary schools.

Resources for middle and high school students are within the state desired ratio, and most of those resources are concentrated in laboratory environments, rather than computers in the classroom. With computers in labs, teachers must take precious planning time to schedule the labs, and then take instructional time to move students to the lab from their regular classroom. Re-distribution and balancing the computer resources across all grade levels, and disaggregating computing resources to the classroom at the middle and high school levels can materially benefit student access, free teachers to concentrate on those teachable moments with the integration of technology, and potentially eliminate the perception that technology is an additive element, rather than a necessary element in instruction. Over the last three years, the district focused on, and accomplished, ensuring a more equitable distribution of assets. In the next planning cycle, the district will focus on embracing the technologies carried by our students and fully integrating that hardware into the instructional processes.

In August 2011, the Fayette County Board of Education applied for a waiver from the State Board of Education to allow the district to pilot and potentially adopt a Bring Your Own Technology (BYOT) project. With the approval of that waiver, the district put a robust guest wireless network in place for use initially by secondary students. Over the past two years, that wireless network was extended into all schools within the district. The planning, policy revisions, and professional learning that went along with this change has materially improved student engagement, collaboration, communication and creativity. Student voice and student choice in the learning process is increasing and students are taking an active role in their education. The adoption of this program has increased the access to technologies beyond the 1:2 computer to student ratio, as consumption can move to consumer devices and productivity is still within the realm of the district's computational resources. This program won't eliminate the need for computer refresh, but will prolong the life of the existing robust technologies within the district.

Instructional Integration Reality

Fayette County approved eSPLOST earmarks approximately 35% of the anticipated revenue to Technology Services to accomplish five primary tasks:

1) Administrative Technologies to Ensure Proper Accountability, Reporting and Asset Allocation
2) Bandwidth
3) Computer to Student Ratio
4) 21st Century Learning Environment
5) Modernize Technology Services

In order to demonstrate to the public their votes were well-cast, during the first year of eSPLOST collections all instructional classrooms within the district were provided with a 21st century classroom installation, which included a modern computer refresh. This 21st century classroom consists of an interactive white board or pad (Interwrite Board or pad, Smartboard, or Promethean Board), a ceiling mounted DLP projector, the teacher computer, a ceiling mounted audio system including voice amplification, and an interactive personal response system. At the heart of a 21st-century classroom is the interactive whiteboard or interactive school pad. The

white board or projected screen is the focal point for whole-class teaching and learning.

Within the 21st century classroom initiative, the focus of technology integration in the district is on pedagogy and effective practices for teaching and learning. Through quality professional development, we encourage teachers to focus on effective technology integration supporting the integration of technology with the Georgia Performance Standards. As a district we recognize that technology is not a subject to be taught in isolation. Collaboration in Fayette County occurs on a regular, consistent basis with teachers, instructional technology specialists, and/or media specialists who plan instruction of technology-integrated lessons and information literacy lessons. Georgia Performance Standards for Technology Integration is used in planning lessons and instructional activities. Lessons and activities that support technology integration standards and coordinate with appropriate sections of the curriculum in all grade levels and subject matter are required. The curriculum department sees the curriculum as the vehicle for Technology Integration as we weave technology into the fabric of learning.

Of course, professional development and access to technology alone does not ensure effective instructional or administrative uses of technology. Such outcomes also depend on a work force that is proficient and comfortable using technology to support learning. Although 100% of all certified staff meet the requirement for technology proficiency, we certainly have additional work to do. No doubt, the 21st Century Classroom initiative will prompt our teachers to confront their established beliefs about instruction and their traditional roles as classroom teachers. The Instructional Department recognizes the need for further professional development and will continue providing professional learning opportunities to teachers so they may move from use of the technology to effectively integrating technology into all curricular content areas. Additionally, infusing the curriculum with technology requires sustained efforts to empower teachers and students to seamlessly incorporate technology into the learning process. To facilitate this process, school based Instructional Technology Specialists will continue to model technology integration strategies and assist teachers in planning technology-rich lessons. Teachers should participate as learners, observers, and helpers. This will provide teachers experience in effectively integrating technology to engage students in authentic tasks.

Exemplary practices of technology integration are frequently implemented within the county. As part of the 21st century classroom initiative, we phased the use of interactive personal response systems to gain immediate “formative” feedback regarding student learning each and every day, rather than waiting for periodic test results. If students are not grasping a concept, then the teacher can address the topic again from a different perspective. Second, it ensures that each child is participating and actively engaged. All students have access to a responder in each school of the district.

Several teachers ask their students to create web-based curricular solutions through an initiative called PROMOTE Georgia. The PROMOTE Georgia program provides students in grades 2-12 an opportunity to work in teams to research and develop an original Web site designed to teach a selected topic. PROMOTE Georgia teachers focus on teaching curriculum standards through project-based learning. Fayette County schools have many award winning sites created by our

students. Students at Sarah Harp Minter Elementary won first and second place in the ten county West Georgia ETTC Region while Braelinn Elementary won third place. Sarah Harp Minter Elementary students went on to win third place in the statewide competition.

At Bennett's Mill Middle School teachers are using a "Virtual Classroom" to teach Spanish. BMMS is also using "thin client technology" from nComputing called Xtenda boxes to create the lab. Thin client technology allows four CPUs serving 16 work stations to run the language lab.

The JASON project is a fast-paced, student centered exploration of our global environment hosted by the National Geographic Society that switches the focus of investigation each year. The curriculum allows students to interact and connect with scientists across the world. In past years, Fayette County students learned about Monster Storms from preeminent meteorologists and NASA researchers; investigated the fragile balance of the Channel Islands Ecosystem with historians and conservationists; and most recently explored the effect of invasive species and climate change on our Resilient Planet with oceanographers and climatologists. Students use technology to interact with students around the globe, ask questions of the actual scientists and researchers, and to explore real world problems in the context of authentic scientific exploration.

Third grade has a new social studies curriculum standard involving finding relationships between Greek architecture and modern architecture in Georgia and Washington D.C. The third grade students at Peachtree City Elementary find photos of various buildings on the Internet and then using drawing tools to highlight the common features. The students find similarities between the Parthenon and the Lincoln Memorial, as well as the ways that many Georgia buildings such as the Savannah and Macon City Halls include Greek elements. Without using technology this type of lesson is more difficult and certainly less engaging to students.

Elementary 4th and 5th graders are learning to use spreadsheets and databases with formulas, sorting, filtering, and analyzing data. The students pretend they are parents and have just sent their child to Space Camp but they don't know what planet their child is on. The students use the clues from the letters the "pretend" students have written to their parents to queries in a Planet Access database and determine what planet they are on.

In general, most Fayette County schools use the available technologies to create WebQuests, teach research skills and create presentations as culminating activities for units. Enrichment students buy, sell, and trade stocks during their stock market unit. Computers are used for students who need extra help such as ReadAbout, FastMath, and GoSolve. Title I students in our seven targeted assistance schools have access to these resources through their home computers and Internet connections. A private network was established to expand the learning day for those students with the three applications. Students in all schools use Kidspiration and Inspiration, a visual learning tool that assists students develop and organize their ideas.

Students use software and websites to create Venn diagrams comparing differences or similarities between many topics. Students create their own presentations about an individual topic they research in class and then present those presentations to the class. The presentations

include using many of the presentation tools and always include pictures. Older groups add designs, animations, transitions, and music, or create web pages with those items embedded.

Students use several different programs to graph various topics in class that work with learning what graphs do, why use them, and how to interpret results of data with different graphs. Mapping and graphing skills are other areas where technology is used to enhance learning and make it more relevant and rigorous. Students learn about time and timelines using many graphics, images, and software that allow them to move through the creation of a time-line which could be used for most any subject.

Many classes use word processing for journaling among and between students as well as in groups to share information and ideas about class topics. Language Arts, grammar, writing--the key to communication and collaboration....can be enhanced and practiced using software and interactive websites where immediate suggestions, feedback, and opportunity for immediate correction occur.

Brainpop and Brainpop Jr. have great follow up summary videos with activities to enhance learning. BrainPop is a fantastic child-centered video program that allows students to learn from a digital multimedia video and provides a quiz to check comprehension. Many websites are available that have interactive learning where students learn about a topic from the teacher, discuss it together, then work through the interactive activities to solve problems using the skills presented on that topic.

Students are using the Internet to physically work with history by seeing visuals of events and creating time lines of that historical information which could lead to discussions about that time line of history compared to a recent timeline of history or analytical comparisons.

Students practice for the CRCT via Georgia Online Assessment System. The Online Assessment System (OAS) is available throughout the school year so teachers can integrate testing on CRCT and GHSGT subjects with their teaching of those subjects.

At the center of the 21st Century Classroom initiative are the students of Fayette County Schools. Technology offers opportunities for learner-control, increased motivation, connections to the real world, and data-driven assessments tied to Georgia Performance Standards that, when implemented systematically, enhance student achievement. The responsibility to use the equipment provided by the citizens of Fayette County effectively lies in our hands. We have the tools to provide engaging, empowering learning experiences which prepare our students to be active, creative, knowledgeable, and ethical participants in our globally networked society.

Students requiring additional assistance or in need of credit recovery gain those items through programs that allow them to attend classes, courses and school online. The Open Campus program has materially assisted in preventing dropouts by allowing flexible learning schedules on line for students requiring assistance. In addition to the credit recovery piece, online learning allows some students to take additional courses for credit through the Georgia Virtual School, or

other accredited learning centers to enrich their high school experience.

Administrative Integration Reality

Administratively, the district is in the position that the external administrative systems are in relatively good shape, but the internal functions require an update. Our Student Information System provides a parent portal and the ability for teachers, students and parents to monitor and maintain student information through a web interface. This system has improved efficiencies within the district, improved our reporting interface with the Georgia Department of Education (GaDOE) and provided parents and students with a system which they can use from any Internet connection to track progress, attendance, discipline, and school requirements.

The Point of Sale system initiated by the district's Food Services has improved reporting, allows for the purchase of meals on-line, and has improved inventory control for the 24 cafeterias. The transportation system allows for a web interface so parents may determine route and transport times.

The weakest administrative system is for fund accounting and human resources. During the next year the district must make a concerted effort to examine and select a replacement system. The current system runs on an antiquated Operating System and the hardware exceeds warranty.

Parent/Community Integration Reality

Fayette County Schools annually participates in the "Speak Up Survey" from Project Tomorrow. Parents and the community are quite active within the district, with about 25% of the district's families participating in that survey and surveys generated by the district and schools within the district. The district's web site sustains almost a million hits annually and the public portion of the eBoard site is visited over 3500 times per month. Our email system receives and delivers almost 200 emails per day to teachers and administrators within the district. The district maintains a portal for parents providing information for assignments, grades, and attendance. The district's Public Information Office does a superb job in keeping parents and the community engaged and informed through the web site, a local access television station, and the print media. The Cabinet uses annual Needs Assessments to identify strengths and weaknesses in community, parent and student perceptions. Additionally, the various departments within the district develop assessment instruments to gauge customer satisfaction with the services provided by instruction, operations, and student services.

Fayetteville, Peachtree City, Brooks, Tyrone, and the majority of the "rural" county is truly a wired community. Survey data shows that Internet penetration within the district exceeds the national standard of 80% by almost ten percentage points. Cell phone penetration within the district is approximately 95%. Cable and satellite television penetration is approximately 92%. Although the demographics of the district are changing a bit, with more ethnically diverse, economic disadvantaged and second language English speaking families moving into the county, there will probably be no significant impact to the information access capability of these new arrivals.

The primary concern is that this access may not be as fiscally important to those economically disadvantaged families as electricity or water. For this reason, in conjunction with our Chamber of Commerce, the district's web site provides information on public access wireless available throughout the district. Our web site is offered in text only and Spanish language versions, and all surveys developed and offered to the community are offered in Spanish language versions. Additionally, all print forms provided at the district's Welcome Center are provided in Spanish, and the staff of the Welcome Center is bi-lingual. To ensure access on mobile devices, the district provides a mobile website, and a presence on Facebook and Twitter.

Finally, as a testament to this district's Parent and Community Integration reality, we have been in the top 10 of large districts in the application of technology for governance, management and community engagement since 2009, are an eBoard Site of Excellence, and are recognized by the GSBA as having a Board of Excellence.

Student Technology Literacy Reality

Regardless of the metric used to measure this reality, ensuring our students are aware of their responsibilities in a digital age is an on-going issue. Initially, rather than add another standard assessment to an already robust assessment cycle, the district elected to use student course work as a measure of technology literacy. Using coursework, the district ensured all elementary students took and passed basic keyboarding. Middle school students had the opportunity to take a technology class or a business education class as part of the exploratory classes offered by the district. Over 95% of the district's middle school enrollment took one of these classes during the three year period of their middle school experience. To ensure compliance with the NCLB requirements for technology literacy, the district made the decision to use a grade of C or better in either of these courses to determine technology literacy. The determination was made through a simple query of the student information system, thus relieving the schools of the burden of another report. Using this metric, approximately 89% of district 8th graders were determined to be technologically literate.

For school years 2011-2013 the decision was made to provide 8th graders with the state sanctioned assessment available on-line. Although there were concerns from school administration and district leadership that modification of the technology literacy determination might be viewed negatively when the results were determined, the standards based, on-line test was determined to be a better method of evaluation than coursework. With the view to determining strengths and weaknesses in the current curriculum, the district participated in the assessment through Learning.com. Although the district's performance on the assessment was better than the state averages, there was a marked decrease in those achieving the standard. When state funding for use of these metrics terminated, the district lost the ability to track that information in that particular format.

Although no longer required to capture this information, there is a concerted effort with Curriculum and Instruction to inculcate digital literacy and digital citizenship in all standards across the

district. Getting students to use the technology is easy. Getting students to think about their use of the technology, the digital footprint they are creating, and being civil to others in an open, collaborative, digital environment, requires constant vigilance, education and reinforcement.

Staff Readiness Reality

Principals and other administrators within the district are beginning to hire individuals who are more technologically savvy. Additionally, employees are beginning to understand the convergence of technologies, the potential of the technologies, and to demand many of the same services from the district's technology services that businesses provide to their users. With that demand is a necessity to for employees to understand the unique requirements to safeguard information offered through district resources, acceptable use of the district's resources, and access control measures for both LAN and WAN.

The district implemented Google Applications for Education (GAFE) during the summer of 2008, for both staff and secondary students. Middle school students have access to a calendar, all applications, and the ability to create their own web sites. High school students and all district staff have access to the complete suite of Google Applications (mail, calendar, applications, sites and groups). Students have adopted the applications much more quickly than staff. Middle and high school students use the off-site storage to maintain their work, collaborate with each other, and to create new knowledge. During this planning cycle, we provided a GAFE account for all students in grades K-12. Although there was a concern that younger students might not be able to remember their access, students have embraced the collaborative nature of these applications. The district staff is learning from the students about the capabilities and collaborative benefits of this “cloud-based” application suite. In the last planning cycle it was thought these tools would allow the district to reduce expenditures. That hasn’t come to fruition, as many of the staff and administrators still embrace their experiences rather than the potential of the GAFE suite.

The district's Technology Services works closely with the Professional Learning Services to ensure sufficient courses are offered for teachers in the application and integration of technology in their classrooms. We also work to ensure the school technology specialists have sufficient skill sets to not only assist students and teachers with the application of technologies, but to also assist the technology services staff by performing better troubleshooting. Professional Learning Services also provide classes and courses for staff in proper use of the productivity tools, and Technology Services provides classes for school registrars, principals and other interested parties in the appropriate use of the student information system. For both professional learning and instruction, the district has captured an Edmodo domain for exclusive use of our staff and students. This platform allows for the professional development to follow a pathway similar to that expected of students (on-line, blended learning and face to face).

Personnel and Resources Reality

The district’s Technology Services staff is continually asked to do more with the same or reduced resources. Fiscally, technology services represents less than one percent of the budget of the

district. There are five technicians serving 30 locations (24 schools, five programs, and four county facilities) of over 10,000 clients. During the last strategic planning cycle, the district opened three facilities without an increase in technology services staff. At the start of this planning cycle, the district closed four facilities, but redistributed assets, so the number of end points served did not decrease for the Technology Services Department.

Other staff includes an engineer, a network security manager, a webmaster, and two Student Information Specialists. The reality is that for a district this size, Technology Services is understaffed. Additionally, over the next three years, over half of the current staff is eligible for retirement. Finding, training and retaining qualified replacements will require an in-depth analysis of the disparity of pay and workload from similar positions in the private sector.

Despite the size of the staff, other than response time to trouble tickets for break fix items, the customer satisfaction with services is primarily positive. Annual satisfaction surveys show a trend to the positive with customer service, network response time, access to technology, and availability of applications.

GOALS, BENCHMARKS, AND STRATEGIES

The school district embraces the Strategic Planning Module from the Georgia School Boards Association's eBoard application. All schools within the district and the instructional and operational staffs have embraced the planning module and its format for planning the work of the district. That model serves as the focus of the work done for school and district improvement, and is quite similar to the visioning model adopted by Fayette County and the Chamber of Commerce for setting the strategic direction for the public sector. For Technology Services and the Strategic Technology Committee, the results of that work follow.

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Priorities: Broadband access throughout the district.
Personalized learning as a common practice.
Data access to monitor student progress through leading rather than lagging indicators, thus identifying specific needs and interventions.

To ensure effectiveness of the plan, each of the goals is articulated and codified with actions and strategies, a fixed set of responsibilities, and a listing of artifacts required to show progress against accomplishing the objectives. The guidance for the district is within the plan, and the road map for the committee's work and its criteria for success are laid out in a separate, living document here.

Other guiding documents in the work done by the Strategic Technology Committee include planning for the expenditure and wise use of the eSPLOST dollars allocated to Technology. That planning document is found here. In support of this plan, the district this year sought funding from GaDOE for high speed connectivity for the district. We were awarded Tier 1 funding to ensure we could accommodate a connection of up to 10 Gig. The response to the grant is here, and the action plan for the first year is here.

In support of our priorities, the committee with assistance from the Chamber of Commerce, polled the community, collected information on wireless access from businesses throughout the county. That data is collated and maintained on our web site, so students and parents know where they can go within the district to access the Internet. Such collaborations ensure all students, regardless of means, have access to information if they have a device. This website will provide you with the location nearest you that will provide wireless access on a personal device during business hours.

III. Communication and Marketing

The district's Public Information Officer uses the web site (http://www.fcboe.org), Intranet site (http://fcboeintranet/), eBoard site (https://eboard.eboardsolutions.com/Index.aspx?S=4067), our student information system (https://campus.fcboe.org), local cable programming channel, and the local news papers to ensure the communities served by the district are informed about what the students, schools, school board and district administration are doing in support of teaching and learning within the district. Technology services routinely works with the Public Information Office to ensure timely posting of information and items. Additionally, all programs within the district have quarterly stake-holder meetings to get appropriate input from those served and to share program information. Each school maintains a web site, produce their own closed circuit television programs, and produce electronic or print newsletters for distribution to parents and students.

Technology Services maintains a RSS Feed to provide timely information to any subscriber, and subscription information is posted on the web site. Additionally, the district has a presence on Facebook, Twitter, and has designed and maintains a web site specifically for mobile technology users, http://www.fcboe.mobi . Schools within the district that maintain similar presences are expected to coordinate those items through technology services and the Public Information Office to ensure proper "branding" of those sites.

Communication is also enhanced between the district and their stakeholders through on-line surveys done annually. The district maintains a survey instrument through a third party vendor that allows any program or school within the district to develop surveys as required. Response analysis assists the district in measuring success with program modifications, improve stakeholder communications and assess community perceptions. Teachers can create surveys and assessments using the form feature of Google Docs to assess student and community understanding and perceptions. The district participates in national surveys such as the Speak Up survey sponsored by Project Tomorrow and the Digital School District survey sponsored by Converge Media and the Center for Digital Education. Such participation materially assists the district in gauging how well it is doing when compared to similar sized districts across the United States.

The Strategic Technology Planning Committee meets at least quarterly to review the technology portion of the strategic plan, ensure budgeting issues are identified and addressed, and to ensure the district's vision for technology use and integration are clearly outlined as part of the strategic planning process. The district's planning process and the involvement of the local board are essential to ensuring the district maintains its current successes.

IV. Professional Development

In addition to the extensive professional learning program provided through the school technology specialists and the district's instructional technology specialists in the integration and application of technology to teaching and learning, the district's professional learning department has an extensive strategic program. Each element of the strategic plan outlines the professional learning responsibilities associated with the Annual Measurable Objectives. The Director of Professional Learning serves on the Strategic Technology Committee and the Director of Technology Services serves on the Professional Learning Steering Committee. These two departments have collaborated on the design, development and delivery of Professional Learning opportunities for the application and integration of technology into the teaching and learning process over the past year. They were integral in establishing the district's on-line professional learning portal available through the district's Intranet, and collaborate on content and delivery of professional learning opportunities throughout the district. The Professional Learning Strategic Plan is found on the GaDOE portal within the Consolidated Application, within the district's strategic plan on eBoard, and a portion is extracted here:

Goal:	**Appropriately integrate technology into curriculum, instruction, and assessment so our students will be capable of living and working effectively, responsibly and productively in a global environment.**			
Strategies	**Benchmark**	**Evaluation Method**	**Funding Source**	**Person(s) Responsible**
Provide professional learning opportunities for school based instructional technology specialists.	Monthly meetings to exchange best practices in the application of technology to teaching and learning.	Observation instrument, application to classroom instruction, improvement in responsible use of technology resources by students.	Local Instructional Funds ($1K).	District Instructional Technology Specialist.
	Attendance at GaETC by 95% of school based instructional technology specialists.	Percentage of school based technology specialists. Increase in attendance by school based teams.	School based and local funding ($15K)	District Instructional Technology Specialist and Professional Learning Coordinators, Principals
Continue 21st Century Technology Leaders Course	Training of school based cadre.	Training completed by Aug 2011. Initial assessment of integration, observation instrument.	Title IID Formula ($3.5K)	District Instructional Technology Specialist and Professional Learning Coordinators, Principals
	Training of Grade Level Teams	Instruction begins Sep 2011. Initial assessment of integration, observation instrument.	Local School Funds ($1K)	District Instructional Technology Specialist, Principals, Curricular Coordinators
Apply appropriate technologies to teaching reading and mathematics	Appropriately integrate available technologies into reading strategies	Observation instrument, improvements on district benchmark(s)	Local funding of IST/ILT ($100K)	Principal and Curricular Coordinators
	Appropriately integrate available technologies into reading strategies	Observation instrument, improvements on district benchmark(s)	Local funding of IST/ILT ($100K)	Principal and Curricular Coordinators
Apply the ISTE NETS to the integration of technology	ISTE NET(S) integrated into lesson plans.	Observation, lesson review and improved technology literacy scores on 8th grade assessment	School based and local funding	

to the curriculum			($1.5K)	

V. 8th Grade Technology Literacy

During the last strategic planning cycle, the district adopted the International Society for Technology in Education (ISTE) National Educational Technology Standards for Students (NETS-S) and the NETS for Teachers (NETS-T). Installation of the 21st Century Classroom equipment has helped to inculcate the standards within the district, and positively influence the manner in which teachers provide instruction and students use the available technologies. Although students within the district are strong users of the technologies, there is anecdotal evidence the use of the technologies isn't as responsible as it could or should be. As the district begins to look at strategies to expand the learning day and the access opportunities offered by district technologies and the infusion of privately owned devices (BYOT/BYOD), technology literacy takes on renewed importance.

The BYOT/BYOD initiatives will require a greater emphasis on responsible use and technology literacy within the district. Over the last 18 months, the number of courses provided to students, parents and faculty on literacy and responsible use has tripled from the previous 18 month period. Additionally, the district has adopted a quarterly Community Forum in which responsible use of the Internet and Social Networking sites is an integral element of each program. Finally, the district adopted the on line assessment for Technology Literacy this school year, and assessed 1324, or approximately 75% of our 8th grade students through the Learning.com assessment program.

The results just became available at the time the previous plan was posted. The initial assessment of the data shows that of those students tested, approximately 47% demonstrated mastery. Schools continue to test those students who have yet to test. Once the testing is completed, and data are analyzed, a sub-committee of the Strategic Technology Committee will reviewed and made recommendations for professional learning, curricular modifications, and methods to improve the literacy of the students within the district.

Although this information is no longer captured and state funding for the assessment is no longer provided, the district recognizes the need for instruction in this "new" area of literacy. Getting students to use the technology is easy. Getting students to think about their use of the technology, the digital footprint they are creating, and being civil to others in an open, collaborative, digital environment, requires constant vigilance, education and reinforcement.

Appendices

District Acceptable Use Policy for Students

CIPA Compliance

Code of Conduct for Elementary School Students, which contains the information on the district's policy and the cybersafety use agreement for elementary students (start on page 8 for specific information).

Code of Conduct for Secondary School Students, which contains the information on the district's policy and the cybersafety use agreement for secondary students (specific information on page 9 for secondary students).

Link to the District's Technology Services Web Site