

# Global Learning Charter Public School

## Technology Plan

Jan 1, 2009 – Jun 30, 2012

## **GLCPS Technology Committee**

Dr. Stephen Furtado, Executive Director  
Ljuba Marsh, Principal  
Lena Pires, Vice Principal  
Derek Stevens, Technology Director  
Adam Clark, IT Technician  
Sandra Chicca, IT Specialist  
Melissa Rodrigues, Business Manager  
Stephanie Wick, Director of Institutional Advancement  
Adonis Ferreira, Director of Student and Family Services  
Hugh O' Mara, 8<sup>th</sup> grade Math and Science

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## **I. Benchmark 1: Commitment to a Clear Vision and Mission Statement**

***A. The district's technology plan contains a realistic and clearly stated set of goals and strategies that align with the district-wide school improvement plan. It is committed to achieving its vision by the end of the school year 2010-2011.***

### **School Mission and Vision**

The mission of the Global Learning Charter Public School (GLCPS) is to have *all* students achieve academic excellence and master essential skills needed for a productive life in the 21<sup>st</sup> century. At GLCPS, we define the terms *academic excellence* and *essential skills* as follows:

- Academic excellence is achieved when a student demonstrates proficiency in Mathematics, Science and the Humanities.
- Essential skills include technology literacy, public speaking, global citizenship and arts exploration.

At GLCPS we expect our students to go beyond standardized tests to demonstrate academic excellence and mastery of essential skills. We are developing a school where the development of standards and frameworks for school accountability are matched by:

- relevant curriculum content and learning activities that prepare young people for the new global, multi-cultural, and technology-rich society and economy;
- teaching methods that ensure that the special learning needs of each student are fully met;
- a small, nurturing and accountable learning environment for all students; and
- school culture that promotes personal qualities of initiative, responsibility, and community connectedness.

### **Technology Goals**

GLCPS is not a 'technology school'. Rather, our objective is to create an environment where students and teachers routinely integrate technology into their curriculum and instruction in order to enhance learning in all subject areas. One of our schoolwide goals is to shift classroom teaching practice away from traditional "teacher-directed" instruction and move toward student-led project-based learning. Full integration of technology is critical to meeting this goal.

In addition, we must address critical equity/access issues given GLCPS serves students who are economically disadvantaged and come from diverse racial and ethnic backgrounds. To this end, one of our core essential skills in technology literacy, to ensure that our students are well-prepared to succeed in post-secondary education and the workforce. At a minimum, we strive to provide equitable access to all of our IT resources to both students and faculty.

5 years ago, the results of our technology survey showed that only 20% of our families had access to computers at home. A more recent survey indicated that 80% now have computers at home. However, parents are not necessarily experienced in using the software their students must use for schoolwork. In order to fully support the parents/guardians of our students, we need

to examine how best GLCPS can support their technology needs. For example, all parents need to be comfortable navigating the GLCPS website and SchoolBrains database, once it is fully functioning. We would like to offer workshops to our families and the larger community on the standard software used at school and in the workplace.

Equally important is our firm commitment to our teaching staff to provide continued high quality professional development to promote technology integration. We offer our staff a full array of courses and workshops, which concentrate on learning how to use technology to promote integration into all cross-cutting curriculum themes.

Additionally, we seek to:

- procure funds to work toward a 1:1 computer to student ratio.
- have all students develop and maintain Digital Portfolios as a form of student assessment in real-time as well as over the student's academic career.
- have all teachers develop and maintain classroom websites which are available to students, parents and guardians.
- establish a "Parent Portal" that provides parents and guardians of GLCPS' students real-time access to their child's attendance, completed coursework and grades
- provide support and training to families with limited computer/technology background, to enhance their capacity to support their child's education.

***B. The district has a technology team with representatives from a variety of stakeholder groups. The technology team has the support of the district leadership team.***

GLCPS has a Technology Committee chaired by the Director of Technology. Members include the Principal, Executive Director, Business Manager, IT Specialist, IT Technician, Vice-Principal and a classroom teacher. The Technology committee at GLCPS has full support from district leadership.

***C. Budget***

***The district has a budget for its local technology plan with line items for technology in its operational budget.***

- GLCPS has a budget for its local technology plan with line items for technology in its operational budget.
- GLCPS includes staffing, hardware, software, professional development, support and contracted services in its operational budget.
- GLCPS leverages the use of federal, state, and private resources

***D. Evaluation***

- 1. The district evaluates the effectiveness of technology resources toward attainment of educational goals on a regular basis. Prior to purchasing***

GLCPS complies with the state's Supplies and Service Procedures in the acquisition of technology supplies and services. Purchase requests currently originate from classroom teachers and technology integration specialists. Requests are reviewed by the technology committee and approved by the Executive Director. Teachers and integration specialists provide feedback to the technology committee.

***2. The district's technology plan includes an evaluation process that enables the district to monitor its progress in achieving its technology goals and to make mid-course corrections in response to new developments and opportunities as they arise.***

GLCPS evaluates the progress it has made in implementing its technology plan. The Administrative Leadership Team (ALT) and Board of Directors has committed GLCPS to focusing on technology in our strategic planning for the next 3 years. We have a technology committee that is in place and are continuing with the documentation of curriculum integration.

## II. Benchmark 2: Technology Integration and Literacy

### A. Technology Integration.

- 1. Outside Teaching Time - At least 85% of teachers use technology everyday, including some of the following areas: lesson planning, administrative tasks, communications, and collaboration. Teachers share information about technology uses with their colleagues.**

All of our teachers use technology every day or nearly every day. E-mail is a primary mode of communication in our system and staff members are expected to access their school e-mail account at least once a day. Classroom teachers take daily attendance online and do all grading within SchoolBrains. Our staff indicates that they use technology for professional activities nearly every day.

- 2. For Teaching and Learning - At least 85% of teachers use technology appropriately with students each week, including some of the following areas: research, multimedia, simulations, data interpretation, communications, and collaboration.**

We find that all of our teachers use technology for student classroom research, multimedia, data interpretation, communications and collaboration at least once a week. Technology is an integral part of our curriculum and its use is visible in all classrooms.

### B. Technology Literacy

- 1. At least 85% of 8<sup>th</sup> grade students show proficiency in all the Massachusetts Recommended PreK-12 Instructional Technology Standards for Grade 8.**

Our students in grades 5 -8 are progressing through the Massachusetts Recommended PreK-12 Instructional Technology Standards. We seek to better quantify this data in the 2009-2010 school year.

- 2. 100% of teachers are working to meet the proficiency level in technology, and by the school year 2010-2011, 60% of teachers will have reached the proficiency level as defined by the Massachusetts Technology Self-Assessment Tool (TSAT)**

Our teachers are working to develop and improve their technology skills. Informal assessment of the staff places 0% at the early technology level, 50% at the developing level, 40% at proficient, and 10% at an advanced level in technology. Ongoing efforts are being made to help more teachers reach the proficient level.

Our comprehensive infrastructure and aggressive vision for technology directly reflect the mission in our charter, which identifies technology literacy as one of four essential life skills. Our affiliation with the High-Tech High learning network in San Diego ([www.hightechhigh.org](http://www.hightechhigh.org)) reflects our commitment to providing students with innovative, technology-driven educational

experiences, preparing them for rewarding lives in a world that requires all of us to use increasingly more advanced technology.

### **Future Initiatives and Implementation Strategies**

We have discovered that what was new 3-5 years ago is now old and must be replaced. We learned that new technology will always exceed the capabilities of current technology and that hardware must be upgraded to meet the requirements of new software. And, we have learned of the need for professional development, both in the basic use and in the integration of technology into the curriculum, to be in-depth and sustained over time.

Therefore, as we look to the future we know that three major areas must continue to be addressed. First, we must make certain that the tools of technology are maintained at their highest level. This means that obsolete equipment must be phased out and replaced with new technology. Second, we must teach our students to use technology intelligently, for the workplace of our children will be far different from what we understand today. Third, to accomplish our goal of teaching students how to use technology intelligently, we must prepare our teachers and staff to do the same. Technology has become part of everyday life. Administrators, secretaries, and teachers are now tied to “paperless” reports and greater accountability for what they do. Teachers are expected to integrate the use of technology into their curriculum, while at the same time, use technology to communicate with parents “online,” keep attendance, and report grades.

#### **C. Staffing**

##### ***1. The district has a district-level technology director/coordinator.***

GLCPS has a Technology Director, who is also a member of the school Administrative Leadership Team.

##### ***2. The district provides one FTE instructional technology teacher per 60-120 instructional staff.***

GLCPS has an IT specialist. To better address all of the K12 Technology Standards and further integrate technology into all curriculum, an additional IT specialist type position will be established in the 2009-2010 school year.

##### ***3. The district has one FTE person dedicated to data management and assessment.***

The tasks of data management and assessment are the responsibility of the GLCPS instructional leadership team (ILT), the Principal, and IT Director.

### **III. Benchmark 3: Technology Professional Development**

***A. At the end of three years, at least 85% of district staff will have participated in 45 hours of high-quality technology professional development covering technology skills and the integration of technology into instruction.***

All instructional staff at GLCPS received over 45 hours of high-quality technology professional development during the 2008-2009 school year. We will continue this emphasis on technology PD in 2009-2010.

***B. Technology professional development is sustained and ongoing and includes coaching, modeling best practices, district-based mentoring, and study groups. The professional development includes concepts of universal design and scientifically based, researched models.***

We have vested significant resources in the professional development of our staff in a wide variety of initiatives at GLCPS. These programs affect all aspects of our school. It is our foremost priority to continue these initiatives and recognize areas for future growth. These include:

*SchoolBrains* – SchoolBrains (SB) is a secure, easy to access Internet-based student and teacher information system. It gives us the ability to collect, manage and analyze virtually all required student data and other related information. In addition, it has allowed us to implement a standardized system for the development of Individual Student Success Plans (ISSPs) and provided the means for long-term tracking and management of the plans.

SchoolBrains also provides the construct for administering our Education Personnel Information Management System (EPIMS) for our staff and allows for direct submission to the DESE.

Perhaps the most remarkable feature SB has is its creation of a “Parent Portal”. This portal (Summer 2010) will provide parents real time access to their child’s education at our school. Many of our students and their families have Internet access at home, and online modalities can strengthen the linkage between our school and our families. This will enable us to post a wide array of relevant curricular information on the web, and make regular classroom activities accessible to families. It incorporates attendance, courses, teacher comments, and grades in a secure, easy-to-use format.

Future growth will revolve around the Parent Portal as well as introduction and development of the SB Question Bank. The Question Bank is a large library of regularly updated test questions that can be used to build school-wide benchmark assessments. They can also be used to develop their own exam questions and subsequent exam administration. The final component will be using SB for master schedule creation.

*SkillsTutor* – SkillsTutor (ST) is a powerful online instructional tool that seamlessly integrates into our curriculum and provides targeted instruction in core skills to improve student

achievement. SkillsTutor is aligned to state standards and addresses individual student learning needs. ST services our entire student body in both English Language Arts and Math courses.

*Student Digital Portfolios* – Digital Portfolios (DP) will become an integral part of our student assessment. Each student will create and maintain their own DP of work, which will include multimedia presentations, projects that demonstrate the acquisition of critical thinking skills, and an outline of their current educational and professional goals.

*Lexia – Strategies for Older Students* - Lexia Reading is a web-based program that is designed to build phonic, word recognition, vocabulary and decoding skills of our 5th and 6th grade students. The program contains levels ranging from early reading to use of Greek and Latin root words. The program allows teachers to assign students different levels based on need.

*United Streaming* – United Streaming integrates seamlessly into our curriculum with over 8,700 full-length videos segmented into 80,000 content-specific clips tied directly to state and national standards. We have found United Streaming to be a tremendous tool to help engage students.

*Connect-Ed* - The Connect-ED service offers a bundled set of emergency communication, survey, and community outreach notification tools designed to help schools at all levels improve awareness, increase involvement, and audit communication on a regular basis. Connect-ED is helping our school improve communication via streamlined, efficient, automated communication to our families, staff, and relevant community members.

*Technology Handbook* – Comprehensive one-stop resource for technology related resources for staff and students.

*WASP Inventory Management* – This state of the art asset management system provides an easy to use, networked solution, which allows us to easily track our equipment. This software provides real time access and support information for each technology related product we own.

*Thinking Reader* - Thinking Reader is an innovative, research-validated program that systematically builds reading comprehension skills for students reading below grade level. The program presents core, authentic literature—books the entire class reads—in a highly motivating and supportive environment.

*Food Service Solutions (FSS)* – FSS provides one of the most innovative software packages to manage food services for our students and families. Its unique biometric system provides our families with the ability to properly manage their child’s nutrition. In addition, it removes the need for “lunch cards” and provides confidentiality while receiving lunch.

*HealthMaster* - The HealthOffice suite of products is a user-friendly software package for our student medical records. The HealthOffice suite offers security, authentication, confidentiality, and flexibility.

*GLCPS website* – We are currently implementing Phase I of revisions to our website which focuses on updating core school information and making the site more intuitive to our users. Phase II will be completed over the summer and early in 09-10. This phase of updates will include: modest graphic redesign, linking our system to SchoolBrains and possibly creating an intranet for our internal school community. In addition, we will have links to our teacher/staff web pages and student Digital Portfolios. We also hope to post curriculum samples and samples of student work, such as interactive Presentations of Learning (POL).

*E-Tapestry* – Recently, we initiated a contract with an Internet-based software program to assist our school in managing our external constituents (Board members, friends of GLCPS, and donors). e-Tapestry (a division of BlackBaud) software is primarily used to assist organizations and schools in building their fund raising programs. This contract includes an online giving tool, which we will have implemented in Phase II of our website redesign.

## **IV. Benchmark 4: Accessibility of Technology**

### **A. Hardware Access**

- 1. The district has an average ratio of fewer than five students per high-capacity, Internet-connected computer. The Department will work with stakeholders to review the capacity of the computer on an annual basis. (The ultimate goal is to have a one-to-one, high-capacity, Internet-connected computer ratio.)***

GLCPS meets this requirement, however many of the computers are over five years old and need to be replaced.

- 2. The district considers students' access to portable and/or handheld electronic devices appropriate to their grade level.***

The district has mobile access labs with laptops to be checked out and used in classroom settings. These are Internet-connected machines.

- 3. The district maximizes access to the general education curriculum for all students, including students with disabilities, using technology in classrooms with universal design principles and assistive technology devices.***

GLCPS is committed to provide equitable access to the curriculum for all students.

- 4. The district has procurement policies for information and instructional technologies that ensure usability, equivalent access, and interoperability.***

GLCPS has procurement policies for information and instructional technologies that ensure usability, equivalent access, and interoperability. More professional development is necessary to better use some of the available accessibility tools.

- 5. The district provides classroom access to devices such as digital projectors and electronic whiteboards.***

Most classrooms at GLCPS utilize LCD projectors on a daily basis. Many of these have become old and replacement of the expensive lamps is part of our ongoing maintenance budget. Several will need to be replaced soon. The 2008-2009 school year, marks our first purchase of an Interactive Whiteboard. The initial pilot will be conducted in a grade 8 Math and Science classroom with a classroom teachers performing at the advanced TSAT level. Results of this pilot will determine future purchases.

- 6. The district has established a computer replacement cycle of six years or less.***

The district has committed to pursuing a 5-year replacement cycle.

### **B. Internet Access**

- 1. The district provides connectivity to the Internet in all classrooms in all schools including wireless connectivity, if possible.**

GLCPS provides high-speed wireless Internet access in all classrooms and work areas in the building.

### **C. Networking (LAN/WAN)**

- 1. The district provides a minimum/100 MB Cat 5 switched network and/or 802.11b/g wireless network.**

GLCPS has 10/100/1000 - switched networks and full 802.11b/g wireless coverage. Networks are connected to a 1GB backbone.

- 2. The district provides access to servers for secure file sharing, backups, scheduling, email, and web publishing, either internally or through contracted services.**

GLCPS worked with Statewide Software to establish a proprietary network architecture, founded on open source technologies. This open source solution enabled us to displace high-cost software and save thousands in licensing fees.

These solutions provided secure Internet and network access throughout the building. Additionally we established our own email system. Using the Zimbra architecture we have established a powerful and customizable suite of email features including shared calendars, instant messaging, document storage, and webmail. The Zimbra system works on all major platforms and additionally allows for mobile access. With low overhead and ease-of-use we have greatly affected communication amongst all community stakeholders.

All students and staff have secure file storage available on our network, accessible from any computer in the building. This unique feature allows students to access their schoolwork from any available computer, rather than being linked a specific workstation. It also moves us more toward a paperless environment. Using the Public folder/Drop Box functionality teachers are able to give and receive work electronically. Future upgrades look to provide secure access to the network from home via a VPN connection for GLCPS staff.

### **D. Access to the Internet Outside the School Day**

- 1. The district works with community groups to ensure that students and staff have access to the Internet outside of the school day.**
- 2. The district web site includes an up-to-date list of places where students and staff can access the Internet after school hours.**

Information about existing and potential out-of-school computer facilities will be posted on the GLCPS website and we will continue to work with community groups to keep this information updated.

### ***E. Staffing***

#### ***1. The district provides a network administrator.***

The Technology Director also serves as primary network administrator.

#### ***2. The district provides timely in-classroom technical support with clear information about how to access the support, so that technical problems will not cause major disruptions to curriculum delivery.***

One of the strengths of the GLCPS technology program this year has been the hiring of a full time IT Technician. Though we have a considerable amount of technology hardware, much of it is has aged beyond standard service contracts. Despite some aging equipment, immediate service from the IT Technician has led to the highest uptime of computer/tech equipment in the history of our program. The Technology Director offers extended hours from 3:30 – 5:00 for additional after school support requests.

#### ***3. The district provides at least one FTE person to support 200 computers. Technical support can be provided by dedicated staff or contracted services.***

With the hiring of the IT Technician combined with the additional support of the IT Director, GLCPS adequately achieves this goal.

## **V. Benchmark 5: E-Learning and Communications**

***A. The district encourages the development and use of innovative strategies for delivering specialized courses through the use of technology.***

The district is currently exploring ways to increase the use of technology in the SPED curriculum. We are also looking to add Internet-Safety curriculum to all grade levels.

***B. The district deploys IP-based connections for access to web-based and/or interactive video learning on the local, state, regional, national, and international level.***

Grade appropriate web content is used in the classroom and computer lab to supplement the curriculum. We have also used resources such as United Streaming for standard specific video multimedia.

***C. Classroom applications of e-learning include courses, cultural projects, virtual field trips, etc.***

Grade appropriate e-learning projects are used in the classroom and computer lab

***D. The district maintains an up-to-date web site that includes information for parents and community members.***

GLCPS recently updated its website in January 2009 to be more consistent with the vision and mission set forth in our charter. Its current form does engage all community stakeholders, but future work will better establish our web presence. We look to provide secure access to our site to allow for students to securely showcase their work and provide parents with real time access to their child's academic activities.

***E. The district complies with federal and state law, and local policies for archiving electronic communications produced by its staff and students. The district informs staff and students that any information distributed over the district or school network may be a public record.***

GLCPS complies with all federal and state laws and discloses these policies to both students and staff.