

**“Innovations Without Restrictions”  
District 225 Technology Initiatives  
2009-2010**

**Introduction**

The term “Innovations Without Restrictions” was adopted by district and building administrators in the spring of 2008 to properly reflect the district vision for building a 21<sup>st</sup> Century Learning Ecosystem. As stated in the introduction of the technology proposal presented to the Board last May (Appendix A), “This modern learning ecosystem is built upon the foundation of mobile educators and learners collaborating, communicating, creating and connecting in a learning community and a hybrid-learning environment no longer confined by time, space or place.” The replacement of network infrastructure and the deployment of Apple MacBook laptops to faculty members were at the core of our efforts during the first year of seeking to make this vision a reality.

It is often difficult to envision what a 21<sup>st</sup> Century Learning Ecosystem is like since the components of such an environment are in a constant state of evolution. However, the following descriptors serve as fundamental tenets for the Glenbrook learning environment:

- Accessible
- Collaborative
- Customizable
- Engaging
- Fiscally Responsible
- Global
- Integrative
- Interactive
- Literacy-based
- Mobile
- Participatory
- Reliable
- Secure

We have enjoyed numerous successes in building the Glenbrook learning environment since last May as evidenced by the update provided to the Board at the January 12, 2009 meeting (Appendix B) and are now properly positioned to more fully establish a 21<sup>st</sup> Century Learning Ecosystem that allows staff and students the pursuit of educational activities that purposely demonstrate “Innovations Without Restrictions.”

**State Required Plan**

A new District 225 Technology Integration Plan (TIP) has been developed as required by the State of Illinois that reflects our vision and establishes a framework for our continued work. During the months of January and February, a representative district team worked under the leadership of Marcus Thimm to develop the TIP to be submitted to the Illinois State Board of Education for approval. The framework for the TIP was changed by the state since our last submission in 2004 and is focused more narrowly on student achievement as outlined in NCLB legislation. The District TIP was submitted at the end of February for approval (Appendix C). It received a very favorable peer review at the state level and is now in final revision and review stage by the district.

## **Technology Initiatives for 2009-2010**

- Migration to Active Directory

Migration to Microsoft Active Directory will continue and will be fully implemented this summer. This migration is fundamental to our future success and allows us to move away from the current Novell network operating system. Active Directory will provide many advantages to users including single user logon, use of PDA devices better integration with current applications. It is important to note that Active Directory will also enable Apple MacBook users to toggle between Windows Xp and Mac OSX as originally advertised in the “Innovations Without Restrictions” vision.

- Multi-dimensional Learning Space

In February, Ryan Bretag and David Jakes presented the district’s vision for the establishment of an electronic learning environment for students and staff they referred to as the Multi-dimensional Learning Space (MLS). See Appendix D. The primary dimensions of the learning space are:

### Course Space

- Based in Moodle, an open-source content management system
- Provides a course repository for assignments calendars and documents
- Offers enhanced, interactive tools for extending and creating learning opportunities: discussion forums, blogs, wikis and mobile technologies
- Permits growth with technology through a customizable and adaptable platform

### Student Space

- Based in Google Apps (freeware)
- Provides a digital portfolio to create an academic footprint
- Offers a variety of tools for formal and informal learning
- Enables the student to transition to their post high school career with their Google Apps resources

### Knowledge Commons

- Will use a variety of tools, including SharePoint, Moodle, and Google Apps, to deliver knowledge commons services
- Provides a digital space for all student support services
- Leverages the expertise of librarians to help students manage and navigate the flow of information relative to their learning
- Provides access to learning resources to the Glenbrook school community, 24/7

The MLS has been successfully launched at both schools through the formation of teacher cohorts. The expansion of MLS is of vital importance to the establishment of a 21<sup>st</sup> century learning environment. Moodle is currently hosted externally through Moodle Rooms. The district will migrate current Moodle content to local servers to allow flexibility and customization of the Moodle environment and unlimited expansion to incorporate any staff member who wishes to implement the Moodle environment as part of their classroom regimen. Completion of this migration is targeted for early June.

- E-mail for Students

Students will be provided e-mail accounts through Google, which gives them access to Google Applications as part of the MLS environment. This is a key element for the successful operation of the MLS. Google will serve as the host with all student e-mail accounts being part of the glenbrook225.org domain. Glenbrook servers can be used to capture and archive all electronic transmissions, but this archiving is also available for a small fee through Google, which is our preferred course of action. Our goal is to issue e-mail accounts to students at the beginning of the school year. A more detailed plan for student e-mail will be developed.

- E-mail for Staff

In a similar manner, Google e-mail accounts will be established for all staff members and will operate in parallel with existing GroupWise e-mail accounts. During the year, staff will be trained and data will be migrated from GroupWise to Google. Our goal is to completely transfer all staff from GroupWise to Google by the summer of 2010.

- Student Information System (SIS) Implementation

A recommendation for the purchase, installation, and implementation of a new SIS will come to the Board at the May 11 meeting. Upon approval, we will proceed with server configuration and data migration, followed by the process of software revision and implementation activities and training with all employee groups. We are currently targeting the beginning of the second semester of the 2009-2010 school year for full, unrestricted use of the new SIS by all parties.

- Emergency/Parent Notification System Conversion

ParentLink is our current provider for the district Emergency Notification System. Data is uploaded daily from SASI, our current SIS. For the last two years, we have voiced our displeasure to the company regarding inaccuracies in the database and did not reach a reasonable level of satisfaction with the database and overall operation until about a month ago. We have located other similar products that are more robust, flexible and allow manipulation by our district applications personnel. One SIS under consideration includes an Emergency Notification System, which is Honeywell, but they claim to interface easily with a variety of products currently available. Once our new SIS has been selected, we will seek to engage a new Emergency Notification System for the 2009-2010 school year. We plan to include SMS services (text messaging), which will increase the utility of the system by staff and enhance our security and notification efforts during crisis events. The overall cost of the new service will probably be slightly higher than ParentLink due to the addition of SMS.

- Parent/Student Portal Development

Parent/Student web portals will be part of our new SIS. All necessary discussions with the GEA have been completed and we openly declared our intention to allow parents and students access to student data information including grades for the 2009-2010 school year. However, it is not yet clear whether that option will be available next fall or if implementation will be delayed until the new SIS is fully functional. Further work with the GEA will be required to set parameters and expectations for all parties before the option of viewing student grades is made available as part of the portal. That work cannot begin until the portal system has been installed and discussions with the GEA have been held.

- Wireless Access Expansion

Wireless access by students and guests will be made available prior to the beginning of the 2009-2010 school year. We will be turning the network on to students and guests during the last nine weeks of the second semester to further test the strength of the current wireless networks in each building. Three levels of access will be made available, with the highest level reserved for staff, a more restricted level for students to enable limited access to appropriate network resources, and finally guests to the district will have access only to the Internet. Policies regarding expanded use of electronic devices on the network and now under review and will be brought to the Board in May or early June.

- Service Desk Software Implementation

The district has now received bids from vendors for a new service desk software product. The RFP for an appropriate product was developed in collaboration with GESSA and the final selection process is underway. Implementation will begin following purchase and will continue into the fall.

- Technology Access for Students of Low Income

Netbooks and other wireless devices currently available at low cost are an exciting innovation that holds great promise for students. This area of the market is changing rapidly and will undergo numerous transformations in the near future. Both schools will be formulating plans for the use and integration of Netbook devices by students for next year. For low income students, we are currently looking at the use of Title I funds for the implementation of a phased program that will make netbooks available to students of low income on a 24/7 basis, in an effort to narrow the gap between students of differing income levels.

- Remote Access Upgrade

Remote access to district resources was expanded in December to include SASI (current SIS) and IGPro (grade book application). For the first time, teachers were capable of completing grade and other SIS data submissions from remote locations. This service will be upgraded for all staff through the use of VPN (Virtual Private Networks) that will securely connect staff members directly to the network from remote locations. VPN is currently limited in scope, but will be available to the entire staff with the implementation of active directory.

- Website Conversion

The district home page is now live and the home pages for the schools are set to go live during the month of May. Content migration will continue for all areas of the district website over the next year. This will require further training at the building level and is dependent on the work of individuals with current web presence. The conversion of the website has been delayed due to development work involving online registration processes for summer school and summer camps.

- Electronic Textbook Pilot Program

The district is currently working with Follett in a pilot to increase the number of textbooks available to students and staff electronically. This holds great promise for possible cost reduction and can serve as a platform for greater collaboration among teachers and students.

- Electronic Platform for Professional Development

Efforts will begin for the development of an electronic platform that will support professional development activities and efforts for all employee groups across the district. A representative district team will be formed early this summer to determine the platform to be utilized and initiate development of the electronic professional development environment. Implementation will begin this fall.

- Electronic Platform for Curriculum Collaboration

In a similar manner, a district team will meet to establish an electronic platform that will enable curriculum collaboration across the district. This resource should work in conjunction with the electronic professional development platform, but has a different primary focus. Implementation of the curriculum collaboration platform will begin this fall.

- Equipment Standardization

Efforts will continue to standardize technology equipment whenever possible to increase redundancy, reduce maintenance time and expense and take advantage of economy of scale purchases.

- Computer Replacement

Our present computer replacement cycle will be maintained. With each replacement, consideration will be given to the utility of the computer or computers to be replaced, the need to further standardize equipment for improved technical support and the possibility of utilizing lower cost alternatives. Serious consideration will be given to technologies such as netbooks, n-computing, and thin client computing to maximize our resources within existing fund allocations.

- **Business Software**

J-School has reached the end of its useful life. Although it continues as our business software package, the company that developed J-School is no longer in business and further support of the package is dependent on our applications staff. A process will begin in the late summer, similar to the SIS process conducted recently, to identify a new business software system for purchase and implementation. Implementation of the new software package is targeted for the summer of 2010 and during the 2010-2011 school year.

- **Computer Re-imaging**

Every district-owned computer will require re-imaging prior to the start of the 2009-2010 school year. This will enable the district to establish a much more stable image that will reduce start-up time for users and the distribution of new and updated software applications. This process is an essential element of the new active directory. The re-imaging process will begin at the close of school with teacher laptops and continue through the month of July.

- **Online Form Submission/Approval**

A system will be developed to electronically route all forms used internally by the district to reduce paper use and increase efficiency. This process will allow employees to submit a variety of forms electronically for approval through the iVantage portal. Microsoft SharePoint will be the application used for this initiative, which is targeted for completion in the summer of 2010.

- **Human Resources Software (iVantage) Implementation**

Implementation efforts will continue with the new Human Resources web-based package purchased and developed within the district over the last three years. Efforts will be made to expand its use and integrate it successfully with the new SIS package and the business software package that is selected to replace J-School. It is essential that these three software systems be able to share data successfully.

### **Standards for Students, Staff, and Administration**

- **Students.** The district has adopted the National Educational Technology Standards and Performance Indicators for Students (NETS•S) produced by the International Society for Technology in Education (ISTE). See Appendix E.
- **Teachers.** Technology Minimum Competencies is a checklist document developed in collaboration with the GEA as an element of the Technology MOU. This checklist, along with the District 225 Instructional Technology Reflection Matrix, will be incorporated as part of the district teacher assessment model and is primarily based on the National Educational Technology Standards and performance Indicators for Teachers (NETS•T) from the ISTE. See Appendix F.
- **Administrators.** District administrators will seek to incorporate the technology standards listed in the ISTE's National Educational Technology Standards for Administrators, as part of their performance goals. See Appendix G.

**2009/2010 - TECHNOLOGY BUDGET - PAYROLL DOLLARS NOT REFLECTED**

**Program 2660 Information Systems (Technology Department Costs)**

109332	Professional Development	\$22,000	Department Professional Development
109419	Supplies Departmental	<u>\$7,000</u>	Department Supplies
		\$29,000	

**Program 2662 Information Services (Reoccurring)**

108312	Consultants	\$75,000	
108323	Repairs & Maintenance Services	\$170,000	\$40K wireless, \$80K district subscriptions, \$50K streaming, Novell
108390	Other Contractual Services	\$10,000	\$5,000 server room cleaning
108414	Non Consumable Supplies	\$18,000	
108542	Software	\$80,000	Existing Software Renewals
108541	Technology Equipment	\$80,000	Server Replacement & other miscellaneous
109318	Improvement of Instruction	\$85,000	doc cameras, smart boards, LCB projectors, netbook pilot
109431	Electronic Resources	\$46,000	Library databases
108343	Telecommunications/Internet Service	<u>\$75,000</u>	Internet - Comcast
		\$639,000	

Total Program 2660&2662	<b>\$668,000</b>	Current Year Budget: \$1,202,700
		Actual To Date: \$490,000

**Program 2661 Information Systems (Applications)**

167471	Software	\$250,000	Student System
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**Program 2663 Information Systems (Tech Plan 2009/2010)**

166312	Consultants	\$100,000	Active Directory Consultants
166320	Professional Development	\$20,000	Moodle, active directory, service desk
166322	Leases	\$192,500	Year 2 of Mac Book Lease
166470	Software/No consumable	\$212,000	\$25k Moodle, 100k school-wide ad, Windows Xp, ms office license, 5k student email, 50k service desk software, \$12k off campus, \$20k software mgmt
166541	Technology Equipment	<u>\$520,000</u>	\$25k v over ip test, 50k active directory servers, 300k computer lab refresh, 120k battery backup, 25k Moodle servers

\$1,044,500	Prior Year: \$1,593,710
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Total Program 2661&2663	<b>\$1,294,500</b>
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GRAND TOTAL FOR 2009/2010

**\$1,962,500**

CURRENT YEAR BUDGET: \$2,796,410

CURRENT YEAR SPEND TO DATE: \$2,083,710