

New NY Education Reform Commission- Buffalo, NY- July 18, 2012

Daniel Marmion, Chief Technology Officer, Buffalo City School District

Instructional Technology

When Buffalo Public Schools considers the success of instructional technology we have to look first at the infrastructure. We've had the unique experience of being part of a decade long, comprehensive project to reconstruct all of our schools into 21st century buildings. The reconstruction included updating all the wiring, maximizing our ability to transmit and support any type of educational media. Buffalo Public Schools has also maximized the monies available through e-rate eligibility, augmenting our infrastructure with additional telecommunication services and equipment. Currently Buffalo Public Schools supports a gig of bandwidth going to every school and is in the early phases of implementing the latest "N" wireless technology in all our instructional facilities. The school based infrastructure includes interactive whiteboards, mobile devices and teacher laptops.

Beyond hardware, Buffalo Public Schools has made significant investments in people. One such example is a position created called the Instructional Technology Coach (ITC). These coaches are certified teachers with a proclivity for technology and work closely with teachers on a myriad of ways to include technology into the curriculum. Coaching activities include interactive whiteboard training, software such as Imagine Learning, Nova Net, and Dimension U, creation of teacher web pages, student response systems for formative assessment, scientific digital probe ware, digital mapping software, digital video, and the creation of digital portfolios. The outcome has been specific projects, Digital Healthy Kids, Computer operations and Common Core Standards, and National History Day. The later project resulted in a WNY Regional competition where 5 of the 6 schools that participated, were selected to advance to a State level competition in Cooperstown NY.

Most recently we've partnered with Microsoft and entered into a subscription agreement for their Enrollment for Education Services. This will provide students and teachers with web based Microsoft Office products and the ability to share documents and work in a collaborative manner anywhere, anytime.

Buffalo Public Schools has begun to build 2 new data centers in our schools, providing high availability and virtualization of applications, shifting the paradigm from single source desktops to an infrastructure that allows for document and resource sharing from anywhere on any device at anytime.

E-rate eligible services have provided low cost telecommunications, providing ubiquitous access through wireless and wired resources across all our instructional facilities.

Concerns

Digital Divide versus Digital Inequity - there has been a great deal of conversation on this subject and it is self evident with many families in Buffalo. There is ubiquitous access to digital content and resources in many places across Western New York, except for the homes. As the 3rd poorest city in the nation, the lack of broadband and computers in the homes can limit student's access to assignments and resources and parent's access to their child's progress.

Sustainability – as technology becomes core to education in meeting learning, computer based testing and reporting objectives, the systems to support these objectives have become more sophisticated. The continuing costs to support these systems are a long term concern amid shrinking budgets. We need to make sure the funding for hardware continues.

People Resources – Instructional Technology Coaches have been a mainstay in our schools and a common practice across many large districts as a resource to help transition teachers from a traditional classroom approach, to building lesson plans that engage students through the use of technology. Instructional Technology Coaches have also supported teachers with central office technology as well. These out of classroom teachers are some of the first to be laid off amid shrinking budgets. The paradox is an increasing requirement for teachers and staff to use technology as part of common core, to use data systems to interpret student progress, and to input data to support an electronic APPR process while the funds available for professional development along with general funds to retain those that have been instrumental in providing the professional development, have diminished.

After Hour Access – our beautifully reconstructed schools are exquisitely equipped to provide access to the many resources to help students and families be successful. Unfortunately we do not have the financial resources to provide after hour access.

Being Prepared

As we prepare for the next decade there are some things that seem self-evident. Text books will be digital, there will be more States offering online classes, and computer labs will be replaced with more mobile devices. It is already happening in other States. What is New York States position on these issues including assessments?

What to Consider

Buffalo Public Schools has a robust network, is in the process of building 2 state of the art data centers and has successfully implemented a program to assist teachers with integrating technology into the curriculum through the use of Instructional Technology Coaches. How can what we have be shared with outlining Districts? There are a couple of WNY Districts that have chosen Infinite Campus as a student information system. Buffalo Public Schools is also a customer. Could this not be a consideration of an opportunity for a shared resource, an opportunity for choice by other Districts in potentially a less expensive model?