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The Georgia Tunnel

A Case Study Perspective

The new Georgia Department of Education's Chief Information Officer asked local school district technology directors a simple question: What can I do to make the information collected at the GaDOE more useful to your local school district?

The answer to this "simple" question proved to be complex and became the key to redefining state and district collaboration.

Introduction

Changes in public education policy and the increased interest in student performance accountability require improved data sharing and communication between state departments of education and local education agencies (school districts). All school districts are required by law to prepare and file reports with their state Department of Education (DOE) throughout the year. Data collections serve many purposes, such as meeting federal reporting requirements, creating district demographic profiles, and calculating state funding aid to local school districts.

In most states, data flows from each local education agency (LEA) to the DOE. Often, limited information is returned back to the district to support improved instruction and student academic performance. One exception is yearly statewide testing results which are mandated by federal requirements to be reported to districts and to local communities and media, providing citizens with one measure of state and local education effectiveness.

At the district level, when a staff member wants to access DOE data, typically, they must have the required permissions to the DOE website and switch from the

local software or website being used by separate logon into the DOE website. An innovative alternative called "tunneling" has been implemented by the Georgia Department of Education (GaDOE). The "tunnel" is a secure link on the district's student information system menu bar that connects directly to the state longitudinal data system (LDS) with identity management and access approval handled by the individual's school district. This approach allows a user to pass from one secure software application or website into another secure website without requiring the user to switch applications. This single logon process, where security credentials are passed seamlessly in the background without user interaction, is a key element in the successful relationship developed between GaDOE and local school districts. Additionally, the tunnel gives access to tools and data dashboards for teachers, schools and district educators providing usable information.

The tunnel concept was being advanced as the Georgia Teacher-Student Data Link Project (GTSDL) began in the spring of 2010. The GTSDL has been managed by CELT, the Center for Education Leadership and Technology, with funding by the Bill & Melinda Gates

Foundation. The two efforts were complementary with the GTSDL providing programmatic and fiscal support for piloting the tunnel.

Tunnel capability began to develop when the new GaDOE's Chief Information Officer asked local school district technology directors a simple question: *What can I do to make the information collected at the GaDOE more useful to your local school district?* The answer to this "simple" question proved to be complex and became the key to redefining state and district collaboration.

A New Beginning


Following his retirement from Georgia-Pacific Corporation, Bob Swiggum accepted the position of Chief Information Officer (CIO) at the GaDOE in September of 2009 with the goal of using his technology and management expertise to help improve public education.

Early in his new position Bob realized that the education environment works differently than the business world. In business when a CIO or technology direc-

tor approaches a user with the intent and the money to help alleviate a problem the person with the funding can "quickly identify some new best friends". Education, Bob learned, can be different.

His initial efforts to identify how the GaDOE could provide meaningful services and information back to school districts were often met with skepticism. This reaction was new and Bob tried several different approaches to improve stakeholder involvement.

Assistance came unexpectedly and from an unusual source. While attending the Georgia Educational Technology Conference, three women informed Bob that they had heard him speak and that he did not understand the education environment. They recommended that he go to Macon, Georgia and meet with "Jesus". After an initial reaction that perhaps they were suggesting a spiritual solution, Bob learned that district level technology staff members responsible for running Student Information Systems (SISs) created an organization called the Georgia Student Information System (GSIS) Users Group. The group, comprised of an eleven member board, meets monthly in Macon, GA.



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Bob contacted the GSIS President and made arrangements to attend their next meeting. After lunch Bob addressed the group, presented his ideas, and offered assistance. The GSIS President, Carolyn Oliver, recalled that “no one believed him” because “the state has tried this before” usually resulting in disappointment with the results. She felt that the GSIS members were “skeptical” and wondered if there was a “hidden agenda”.

Bob attended additional meetings with the GSIS Users Group and persistence proved successful. According to President Oliver, the members were impressed with “how quickly Bob grasped education” concepts and believed that he was “listening” to them. This was a different approach from the past and the GSIS Users Group agreed to work with the GaDOE.

“What could I do for you that would be worth your time to help me do it?” Bob asked the GSIS members. In response the Group’s Advocacy Chairperson accepted responsibility for creating a document describing how the state could provide useful information back to the districts. The 12 page response was 11 pages of what the districts did not want. For example, they did not want more layers of security or additional data submission requirements. One page of the document identified what the district technology directors would like to have added to the state system with a top priority being to improve ease of access. At first reading it appeared to be nearly the opposite of the Georgia Longitudinal Data System (GLDS). How could these seemingly opposite objectives be reconciled?

Establishing Common Ground

The recommendations were reviewed and discussed at the GaDOE and statewide with other educators and technology directors. The GSIS board members were asked to consider volunteering as a pilot group. After discussion it was agreed that the three districts that were part of Georgia’s Teacher-Student Data Link Project (Bartow County; 14,320 students, Gwinnett County; 154,900 students, and Morgan County; 3,270 students) would participate in a pilot.

Developing a Project Goal and Objectives

To be successful, a project must have a clearly defined goal and attainable objectives. Working together, the

pilot districts and DOE agreed upon a project goal: **Enhancing the Georgia Testing Identification (GTID) Process.**

The GTID process has been assigning unique identification numbers to students since 2005. The pilot districts and GaDOE worked collaboratively to define five GTSDL project objectives that would enhance the assignment and use of the GTID as the unique student identifier. These objectives were scheduled to be accomplished in the 18 month GTSDL time frame.

1. *To provide easy access to the GLDS.*

Provide a seamless link from the LEA’s SIS to the statewide student claiming functionality.

The GTID claiming process associates the state assigned unique student identification number with a school district. In this way, the claiming process associates the student with the district for funding and it is the primary identifier for organizing student historical data, assigning state assessment tests, identifying students for four year graduation rate calculations, and recording special education events history.

This objective was accomplished by working with SIS vendors to include five lines of new code in their system’s core source code. The result is that the LEA’s SIS menu bar contains a link that when clicked takes the user to the GLDS without requiring additional logon and password verification. This source code created the “tunnel”.

2. *To provide a web-based, “near real-time” GTID claiming process option.*

Automate the GTID claiming process.

The GTID claiming process had been a paper-based batch extract process. That is, the district filled out and mailed a hard-copy form to the GaDOE. The GaDOE then completed the form and mailed it back to the district. The paper-based process often required weeks to complete. An online GTID claiming process providing immediate or real-time response was identified as a significant improvement.

3. To improve the accuracy of the unique student ID assignment process.

Refine the unique student identifier assignment process to increase the accuracy of matches by reducing or eliminating duplicate GTID assignments.

4. To eliminate student information data entries for students transferring from one Georgia school district to another in-state school district.

Provide an automated electronic download transferring student academic records from one in-state district to another.

Before the GTSDL project, when a student transferred from one school district to another school district, the receiving school district would wait for the student's cumulative folder to arrive from the sending school district via regular mail. This would take weeks and during that time administrators and teachers struggled to assign the student to appropriate classes and to identify which, if any, instructional supports needs to be in place to help ensure the student's academic success.

5. To prepare to implement a defined framework for verifying the identity of the students listed on the teacher's class roster.

Define and implement a roster verification process.

Key outcomes of the GTSDL project include the development of definitions for teacher of record and contributing professional, and a process for verifying classroom rosters.



data resources to schools and teachers. Providing building administrators and classroom teachers with access to accurate, historical, and real-time student information are key elements to improving classroom instruction and student academic performance. Such access leads to the transformative ability of providing classroom teachers with direct access to student information.

Improving the GTID Claiming Process

Morgan County a “fairly rural” K-12 school district of approximately 3,300 students is located one hour outside of Atlanta and a half-hour from the University of Georgia. Morgan County has been a very stable school district where students began and completed their K-12 education. Changes in the regional and local economy have significantly increased student mobility.

The augmented student mobility has made the GTID claiming process a more routine task than in previous years. Morgan County has a one and a half to two percent growth rate per year and sees another ten percent of students arriving and ten percent of students leaving the district each year. This represents an overall student population change of about twelve to fourteen percent per year. The streamlined GTID claiming process has reduced administrative tasks, clerical time, and improved student identification accuracy.

Accessing Student Records Quickly

Historically when a student transferred into a new school the teacher had to wait weeks for the student's transcript materials to arrive in hard copy via the U.S. mail. Because data in the GLDS overlaps with data stored in the district's SIS, by leveraging the information in the

Making it Work at the School District Level

Student assessment techniques do not always provide educators with early warning indicators when students are struggling. An outcome of the tunnel work is to enable school districts to identify successful frameworks that provide teachers with early identification of students who are experiencing difficulties achieving success.

The tunnel improved state-level processes. Considerable thought has been given to how the project can provide

“As I finished conducting an elementary school training session last year showing teachers how to access information on the students in their classroom one teacher said, ‘I didn’t realize that this student failed math three years in a row.’ It surprised me that a teacher would not have known such important information about a student’s past academic performance. The fact that teachers can click a link on our SIS menu bar, instantly access the LDS, and be able to review the demographic and academic history of the students in their class is a significant and positive improvement.”

**Anthony Swain, SIS Coordinator
Hall County Schools**

GLDS electronically school administrators and teachers can quickly receive data about students who transfer in from other counties. Today, when a student transfers from one Georgia County to another, the classroom teacher is able to electronically access detailed student information including withdrawal, state assessment, and transcript history the next day.

To provide appropriate academic success supports for a student who is entering a new classroom, it is important that the teacher review historical and transcript information as soon as possible.

In school districts such as Hall County (student enrollment of 26,000 students), the GTSDL provides quick access to student information that supports positive change at the school and classroom levels. Data access is controlled by a course file containing student information including the courses they are taking and the teachers who are teaching the courses. The course file, uploaded to the state three or four times a week, propagates the GLDS overnight. When a Hall County district-level user signs-on they see data on all of the students in the school district. Data access is controlled and when a principal or teacher logs on, the principal only sees the students enrolled in their school and the data associated with those students. When a teacher logs on they see just the students that they teach. The result is that teachers can obtain accurate demographic, withdrawal history, state assessment results, and transcript data for the students that enter their classes within one day of a student’s classroom enrollment.



Implementation Planning

When the program became available last fall, it was presented to the Hall County Board of Education and to the principals. There was immediate interest from district administrators and Board of Education members. When presented at a principals’ meeting the principals were excited about the possibilities. At the beginning the program was rolled out to 12 pilot schools in Hall County.

The first step was providing access to principals so that they could test the system. The SIS Coordinator offered to provide school-based professional development for teachers and received requests from about 70% of the district’s pilot schools. In a 45 minute training session building administrators and teachers learned how to access the data available.

The student profile contains demographic information, total absences over the past 5 years, yearly attendance

trends, last year's grades, economic and gifted status, and any school withdrawal code. For high school students, the profile also includes their 9th grade entry date, special education services provided, assessment scores, high school graduation test score, and other state test results. A teacher can click on any of the graphics and drill down to a student's raw score. Graphics comparing a student's academic performance to school, county and state averages are also available.

Creating Student and Parent Involvement

Chestatee Middle School quickly integrated this new capability into their school improvement process. At Chestatee Middle School teachers receive a printout of each student's profile page that includes the assessment history and a visual, color coded indication if the student met (green), did not meet (red), or exceeded state requirements (gold). On the back of the printout a pseudo contract is written identifying educational skills that the student needs to improve. The student and parent sign this contract as an academic motivation tool.

Constructing the Future

Following the successful pilot, the demand for access increased and there has been a strong effort to achieve statewide implementation. At the same time, school districts have asked GaDOE to expand the tunnel to include additional information sets and functionalities. Improvements are continuously planned and worked on, and the following diagram portrays current and future tunnel functions as of June 2012.

Under the umbrella of the Georgia Statewide Longitudinal Data System, the Data Hub and Portal Project houses the ongoing tunnel work and expansion. Professional development modules have been created for school and district staff to understand and easily use the tunnel and supporting tools. Examples of specific system enhancements include:

Accessing curriculum information: In fall 2011 a teacher resource link was implemented on the GLDS website. The link gives teachers the ability to view content associated with a specific instructional unit. If a student's performance on a specific unit of study needs improvement one click connects the teacher to instructional content aligned to that unit. This gives

teachers a way to review the instructional materials on which a measure of academic performance is based.

Adding contributing professionals: In 2010, the implementation provided school personnel with three levels of information access: district, school, and classroom: An administrator could see all students in the district. The principal could see students in their building and teachers could see students in their classroom. Contributing professionals such as a special education teacher who provided services in the classroom one or more periods a day, a teacher providing IEP services in the regular classroom, and special education case managers could not access data appropriate to their responsibility. The ability to connect up to five teachers per student was implemented in fall 2011 and provided this capability.

Expanding operational data sets: Development of the GLDS includes adding formative data to the summative data available. As the GLDS grows, the GaDOE continues to improve the front-end dashboard and provide additional drill-down capability tools. An Operational Data Store (ODS) connected to the GLDS will accommodate teacher lesson plans, benchmarks, and online formative assessment tools and analysis. Consolidating the data and integrating these instructional support tools into a single system delivered by the state, promises to leverage existing data and increase state and local savings.



Implementing real-time data: Districts anticipate an automated process where LEA data is uploaded to the GaDOE's ODS each day. School administrators and teachers look forward to being able to see real-time student performance data.

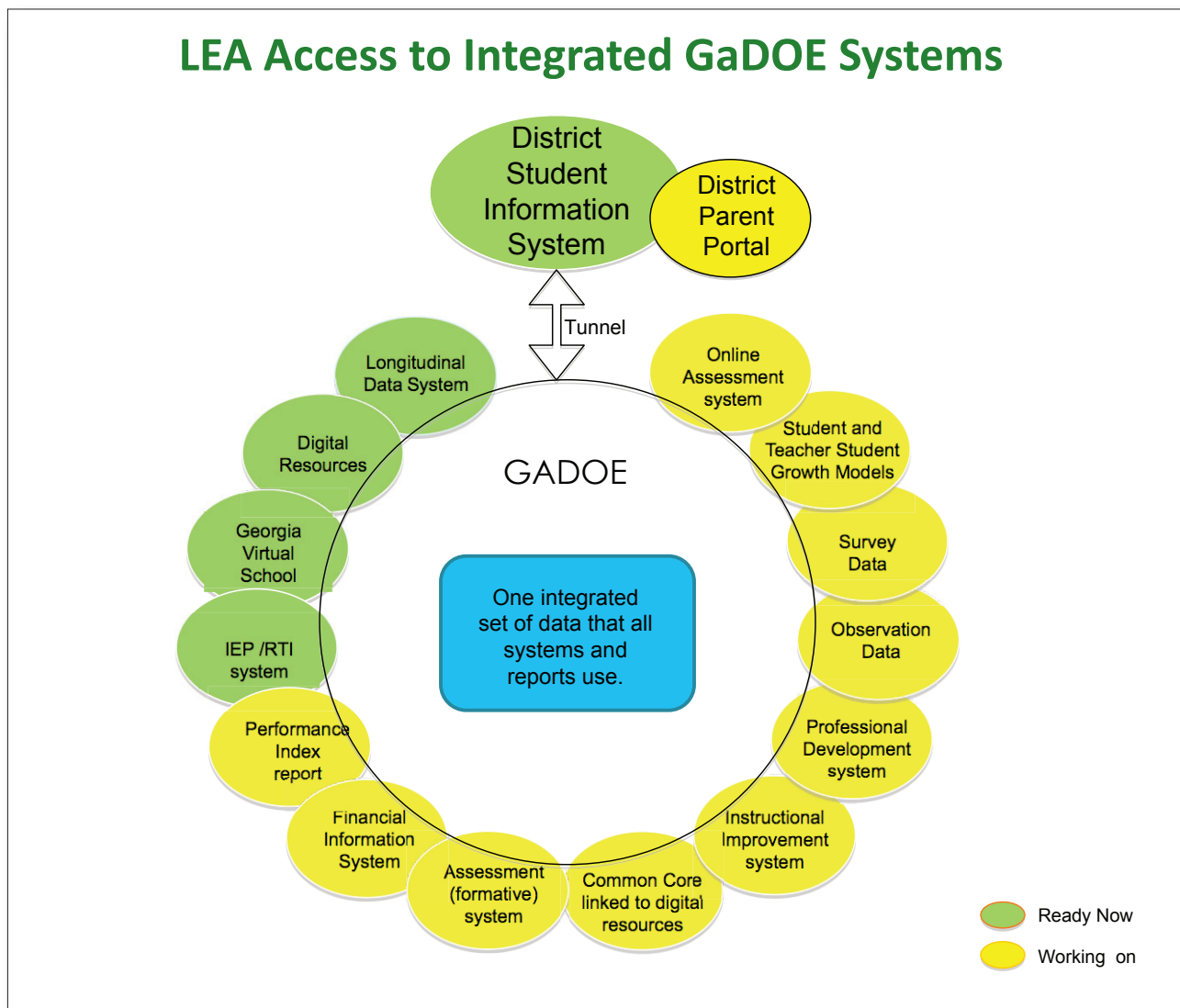
Extending longitudinal data: In 2011, only a small slice of data was available for classroom teachers. The 2010-2011 data has since been added and additional data will be added each year. Ultimately, a high school teacher will be able to see the ten to twelve years of a student's academic history. A kindergarten and first grade teacher may not have as much data to review but fifth grade through twelfth grade teachers will have data on demographics, longitudinal assessments, and the classroom to use in planning and delivering instruction.

Developing roster verification:

“Developing a framework for connecting student indicators of achievement with teacher performance and including roster verification as one component of the educator evaluation process is important.”

Dr. Stan DeJarnett
Morgan County School System

Bob Swiggum explains that one reason for placing the GLDS link or “tunnel” connection on district SIS systems was in preparation for a roster verification process. This is a key component of establishing a valid teacher-student data link and builds on the GTSDL





definitions and policies. Classroom roster verification will be completed by teachers through the tunnel. The rollout of this process began in spring, 2012.

Introducing teacher and leader effectiveness: The State of Georgia is developing multiple measures of evaluating teacher and leader effectiveness. The revised approach will include a growth model that may have financial rewards based upon student performance. This model development work has been done by the three following committees:

- 1. Growth model committee:** value added model design and implementation alternatives
- 2. Class keys committee:** classroom observation structure and frequency
- 3. Survey committee:** student, teacher, civic leader, and parent engagement, or a combination of these with grade information gathering instruments

Improving SIS data exchange: Providing a means for two-way data communication through the tunnel would enable districts to pull data from the state system back into their SIS. The GaDOE is speaking with SIS

vendors about the possibility of importing a flat file extract generated by the GaDOE into the district's SIS.

“For Gwinnett County this effort has provided a method for connecting to the GLDS and an improved GTID claiming process. The primary difference between what Gwinnett had and what the state now provides are the data visualization tools. The tools that the state is providing will change the way the school district shares data.”

The data visualization tools Gwinnett used were difficult for some teachers to use. The GaDOE has provided visualization tools that teachers can use. This is important because Gwinnett has a data culture and staff is expected to use data. More than half of the elementary and middle school teachers in Gwinnett use data to inform instructional change through the year. The tunnel and GTSDL project is helping Gwinnett expand in-district collaboration and school-based data-driven decision making.”

**Steven Flynt, Associate Superintendent
Gwinnett County Public School**

Conclusion

Georgia's tunnel has helped to redefine the collaborative relationship between the GaDOE and local school districts. It has enabled education professionals to meet and work together resolving issues where, in the past, partnering had been difficult and, at times, unproductive. Essential to the change process is the GaDOE's willingness to listen to school district leadership and the ability to deliver on commitments to support their requests and recommendations.

Four important elements of the tunnel's success include:

- 1.** The GaDOE significantly expanded the successfully completed components of the GTSDL project beyond the pilot sites by rolling them out to school districts statewide. This was done on a voluntary basis, i.e. districts were not required to participate; however, districts quickly signed up as they saw the power and effectiveness of the tunnel and tools.
- 2.** The tunnel capability has been expanded beyond the student's primary or teacher of record to include the contributing professionals whose work impacts student academic achievement and who are linked to a student's course profile.
- 3.** Access to the GLDS data warehouse is now available to more than eighty thousand teachers in one hundred and sixty school districts (90%). Building administrators and instructional staff are using the tunnel process to access student academic reports to improve student academic performance.
- 4.** A replicable model for GaDOE to successfully partner with local education agencies and key education stakeholders has been developed. The trust and relationships that were formed will continue to be instrumental in further enhancing the tunnel functionality and use.



Leveraging the support of the Teacher-Student Data Link Project and other important resources, the GaDOE has provided access to longitudinal data and integrated effective tools in the system for administrators and teachers to improve instruction and student performance.

More information about the tunnel and training materials can be found on the GaDOE SLDS website at <http://slds.doe.k12.ga.us/Pages/SLDS.aspx>.

State education agencies can also log onto GRADS (the Grantee Records and Assistance Database System) and select the PDC (Public Domain Clearinghouse) tab. The Georgia tunnel is one of the resources available through the PDC.

For more information, please contact Nancy Wilson, nwilson@celtcorp.com



Teacher Student

Data Link Project



For over two decades, the Center for Educational Leadership and Technology (CELT) has been viewed as a “thought leader” and “trusted technical advisor” focused on aligning leadership, learning, and technology. By working collaboratively with educational organizations, government agencies, and foundations, CELT assists educators in their pursuit of increased student achievement, effective teaching, and improved operational effectiveness. CELT’s mission is to help learning organizations attain their vision, mission, and goals by integrating high-quality programs, services, and technology with the organization’s people and processes in a timely, efficient, and cost-effective way.

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