

School Boards' Presentation – Thursday, October 23, 2014

The Changing Role of Technology Leaders

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In order to understand the changing role of technology leaders in education one must understand the changing role of instructional technology in today's school settings. What you might be thinking of right now is all of the things you deal with at the school board level, which tie directly to technology!

If you take a minute to think about some of the concepts you have dealt with in recent years, you might recall conversations about the following:

- 21st century skills
- APPR
- CBT
- Common Core
- National, state and local requirements
- Professional development

Each of these items should conjure up some thoughts about technology because so much of what we do today in schools involves the use of technology. In the early years of technology in schools, probably well before your time on a school board, school districts had to deal with building the necessary infrastructure to support administrative uses of technology like the automation of business functions including payroll, attendance, state reporting, auditing, and more. This build out of a network involved things like bandwidth, servers and generally the access to the technology from a local site to a centralized location. Then came the move toward developing student uses of technology. Initially students learned programming, interacted with software built to assist in the teaching and learning process, but for the most part, it just did not make the sweeping reforms that were promised. There were several reasons for that happening. Firstly, there was little research to document the effect of technology on teaching and learning and the hardware including technology networks was not robust enough to handle the data that would be generated by such systems. Generally teachers did not accept the promises being made by some educators. They remained skeptics for the most part.

Then over time, computer hardware moved away from mainframes and desktop computers became readily available, but still the cost was too high for most school districts to give their students the access to technology, which limited the ability of a school district to purchase and equip classrooms with the hardware to do so. Now recently with the advent of the cloud, tablets and hand held devices, things began to change.

I often refer to it as the move from information technology (it) to Instructional Technology (IT). Today we focus more of our attention in schools away from building an infrastructure or network toward using the network to support teaching and learning. This move from (it) to (IT) is a phenomenon that has changed the way we think about technology. Now it has become so integrated into our everyday life and the lives of the students in our schools that we cannot think about moving forward without the support of technology. I would bet that there is not a single person in this room tonight that does not have a cell phone on them and/or some tablet/computer with them to communicate and record information. You see we move through our everyday life taking it for granted because it has become part of the fabric of our lives. Technology has become so integrated into our daily work and lives that we often don't think much about it – we just use it!

As school board members you have an added responsibility to ensure that the students within your school buildings are prepared for 21st century living, to develop the skills necessary to live in today's world and to function as a productive member of society upon graduation from high school. I ask you then why do we want to limit our students to this technology within the school day? Why do we create policies and practices to restrict access rather than to find ways to improve access while still maintaining a safe and secure environment for students to function?

I never experienced so much change in such a short time as we have recently noted, where technology has moved the development of education to another place. It is no longer the responsibility of schools to just teach students and have them learn, but to teach students how to access and consume knowledge through the use of technology that assists them in their learning process. Today there is so much information available that one could not ever remember everything they need, but the person who gets ahead is the person who knows how to access the

information in a timely way without having information overload or not knowing how to find what one needs to survive and to deliver it in an intelligent way to someone else.

Here at the LHRIC we just began a webinar series to help district administrators begin to examine the changes in technology and how it might affect the leadership in the future. Let me take a minute to show you a brief video from this series that speaks to this very point. Dr. Donald J. Leu is Chair in Literacy and Technology from the University of Connecticut, an expert in this field. Let's listen to some of his comments just recently recorded for our series.



<http://www.tubechop.com/watch/3828865>

Full video at: http://youtu.be/ZJ_xFdRRA-4

Some key points to remember from the video are:

- The Internet is really a literacy issue.
- It crosses all disciplines.
- The world of technology is always changing.

Let me try to help you visualize what I am saying. Think about a bridge, it has footings and pilings to help support the roadway that travels over it and allows us to drive cross a large body of water or other obstacle in our way. We build those bridges accordingly with the right infrastructure to support the traffic expected to drive over it from day to day. This example is much like the infrastructures we built early on to help drive the information technology (it) over

our networks, to assist with the administrative functions of a school district. Then later on as things changed, the cost of technology was reduced, technology became more readily available, infrastructures had to be built to handle more traffic and to permit students, more people, to access information. This shift in our thinking exploded when we gave more access to more people to utilize these systems in their education, we call it instructional technology (IT).

Today through the LHRIC consortium we have developed centralized support to assist school districts in handling the things they need for everyday functions within our schools both administrative and educational uses of technology. We want to give ubiquitous access to all students and staff, we want to control data to ensure that is secure and remains private, and we also want to maintain safe school buildings to help each student achieve their highest level of success. These items are all governed by the infrastructure we build out to support them and we want it to meet the instructional goals we mentioned earlier.

A centralized support system is one that is managed allowing everyone to work together to support the whole system, the larger consortium of the 62 school districts that make up the LHRIC. In turn identity management has to be sophisticated enough to help control data and keep it safe and secure. We are trying to do that now with the development of tools that will permit ease of use and still permit school districts the choices they need to allow them to function as independent school districts, but within the consortium that was created to help manage costs. Therefore, the LHRIC is also changing to meet these challenges and needs. Today we are currently developing oneAPI, which allows districts to access data from SIS to populate the databases being used by teachers and administrators in support of the educational goals usually through formative and summative evaluations. With these initiatives came a need for the expansion of Wi-Fi services throughout all school buildings and classrooms. It also encouraged new initiatives like BYOD in many districts that allowed students to use their own devices while in school. These efforts have expanded access to all students and staff while challenging districts to increase networks and infrastructures around them, in ways that have not been done before. It requires new leadership and new understandings of things like Mobile Device Management, User ID Management and Single Sign on, to help manage information and to permit it to flow seamlessly for students and staff.

To ensure that our students are safe, more and more schools are using proximity cards, cameras and visitor management systems to better protect students and staff from any reoccurrence of the tragedy that occurred at Sandy Hook, CT some two years ago.

What does all this mean? It means as we call it – feed and speed – increased bandwidth, edge switches, fiber, network core, servers and traffic management to make it all happen and to be as seamless as possible. The end user needs to access the information to make it all happen, but should not have to worry about how it happens or why! The speed of networks is reliant on bandwidth and students and staff rely on these networks to go about their daily work.

Now this brings me back to my initial topic – the changing role of technology leaders. At this point, some of you must be wondering what does this mean for my school district? How does this affect the way we think about our staffing for technology? What more should we be doing or what is it that we should be changing to meet this new standard or new infrastructure. And more importantly, how can we do it within the NYS Tax Cap Legislation and still improve our system to meet these new challenges and many times as unfunded mandates?

New leadership starts with the superintendent and his leadership team in defining their educational goals and having the vision and to work hand-and-hand with school board members and school communities to maintain a consistent, coherent technology plan that meets all of these needs.

The changing role of technology leaders start with a new vision one, which embraces the instructional goals stated earlier. We might disagree with the roll out of some of these initiatives, but I think we probably agree with their intent. In a recent NYS School Superintendents survey released by NYSCSS over 80 percent of superintendents responded to the survey answered that they see the Common Core Learning Standards producing a positive impact on the quality of education in their districts' schools. Policy is always an issue, but one cannot argue about the effective use of technology in education. Now more than ever we realize how our lives are affected by technology and how it would be a poor decision to stop supporting initiatives that enhance their use.

The new leadership must embrace technology not for technology sake, but for the benefits that it supports in promoting increased learning outcomes, increased interest by students in school, increased flexibility of students in creating their own learning, increased access to the knowledge and skills necessary for a student to be successful upon graduation. You and all of the educational leaders within your district must find ways to enhance access, create opportunities for all students to be successful, and create the proper infrastructure to increase the speed and exchange of data.

You have an opportunity with the proper assessment of how you spend your resources through the local budget, perhaps the passage of the Smart Schools Bond Act in November, use of IPAs (installment purchase agreements) and the allocation of resources in professional development to effectively move your system ahead.

Let me conclude with a summary of remarks from Dr. Donald Leu of UConn. Please listen to how he addresses the idea of new leadership.



<http://www.tubechop.com/watch/3828896>

Full video at: http://youtu.be/ZJ_xFdRRA-4

To emphasize Dr. Leu please try to remember:

- School leaders drive change – they have a vision – that includes the superintendent and Board of Education

- You must understand the changing nature of things as we live them today
- You have to have a lens to the past, what we have been doing, and a lens to future, for what has to change
- Our students have to learn how to communicate, read and write in the world of the Internet
- The use of Close Reading to make inferences from reading and learning through the use of search engines and research – how to interpret, become informed from the sources
- Helping students to learn more efficiently and locate information

Remember to have a lens from the past with a lens toward the future – the real key to leadership – plan for the future!

Thank You.

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