

How 21st Century Service Agencies Create 21st Century Schools

Using research and data to target services and meet the diverse technology needs of member districts

By Rob Mancabelli

If you're a service agency leader in 2013, you're probably facing one of the biggest challenges of your career.

After nearly 150 years of slow, incremental, evolutionary change in education, the advent of the Internet is prompting a revolution in the way that schools think about learning. Blended learning, online learning, personalized curriculum, customized instruction and individualized assessment are just a few of the monumental shifts. And it has everyone scrambling to figure out "what school looks like" in an age where anyone with an Internet connection can learn anything, anywhere, anytime, with anyone.

But wait – we haven't gotten to the challenge yet.

The challenge is that you're expected to help your schools tackle the largest transformation in education in living memory while your agency is receiving less guaranteed funding (from fewer sources) than at any other time in its history. You're expected to prove the efficacy of everything you do, while fighting forces attempting to consolidate, reduce, shut down and otherwise prevent you from fulfilling your mission. Face it – it's fine to do "more with less," but often you're being asked to do "more with almost nothing."

And just to make the challenge a bit more challenging, you probably have a sneaking suspicion that this transition into the globally connected world of the 21st century is not only a hurdle for your schools, but for your agency as well. Probably, more than once, you've looked in the mirror during the past 24 months and wondered how can I get my agency teams to embrace truly modern methods of delivering services? Are we still deciding on and delivering services the way we were 10 years ago? Essentially, how do I create a 21st century service agency in order to serve 21st century schools?

Well, the good news is that service agency leaders from around the country have begun putting together the puzzle pieces. In this article, we review the changes that have occurred in learning and how service agencies are at the forefront of helping schools create more effective learning experiences. Best of all, we talk about how your colleagues are using data to drive this transformation while using fewer resources and reducing costs.

It's a story of real service agency leaders making transformational change happen for real students – and along the way, creating new models of delivering those services to schools. They're blazing the path to the 21st century.

The Transformation of Learning

Today's Internet connectivity makes accessible the sum of all human knowledge and over two billion people who can teach it to you. Let's pause for a moment to think about the impact of that innovation. It's huge beyond reckoning. In fact, when measuring shifts in human history, researchers such as Robert Darton from Harvard University have said this is one of the four most fundamental changes in information in human history, ranking it with the creation of alphabets for writing, the development of the first books and the invention of the printing press.

With the advent in just the last few years of a truly interactive World Wide Web where people of all ages and all interests can create and share their ideas, a time of real educational transformation is at hand. As billions of people from all parts of the globe begin to communicate, collaborate and connect in fresh and creative ways, their use of technology is challenging the traditional structures of business, journalism, politics and, ultimately, education. What happens to journalism when everyone has their own printing press? What happens to politics when constituents can have their own voices heard by large Internet audiences? What happens to businesses when their consumers can easily converse widely about their products? And what happens to schools when the sum of human knowledge and thousands of potential teachers are available at the click of a mouse?

Educators are just beginning to face these questions. For the first time, more than just the privileged few in our society have easy access to knowledge in the form of a digital library overflowing with relevant, diverse, high-quality information. No longer are teachers the sole arbiters of knowledge. No longer do classroom walls limit the reach of students' work. No longer is learning restricted to small blocks of time over weeks or months. It's a time where the learner has become empowered, and the monopoly that schools had on learning up until the 1990s is far behind us, and fading in the rear view mirror.

These changes do not mean that we should abandon proven best practices of schooling that support teacher growth and student achievement, or that meaningful face-to-face relationships between teachers and students are any less important. Students still need to learn many of the same basic skills as they always have. But it does mean that many of our long-held beliefs about schooling are being challenged by new technologies that allow learners to create networks of trusted mentors in meaningful communities of practice, and to share widely the fruits of their efforts.

In short—it's a brave, new, interconnected world—and we have to figure out how to teach in it.

Work Readiness Redefined

We also need to figure out how to work in it. As these changes rewrite the landscape of learning, they also redefine the skills our students need to prepare for their careers. To be frank—a 20th century education no longer cuts it in a world where the U.S. Department of Labor estimates that today's students will have 15 to 20 jobs over the course of their lifetime. This shift from continuous full-time employment with a small number of organizations to rapid shifts between multiple jobs is caused by a number of factors. In a recent whitepaper, titled [Preparing Students for a New World of Work in the 21st Century](#), we found the reasons to include an increase in self-employment, the rise of automation, the rapid turnover of skills, and the need to compete globally for work.

Let's walk in someone's shoes as an example—an artist working in the field of design. If you were a creative designer 20 years ago, you competed for jobs against dozens of people who submitted resumes for a full-time position with a design firm. Some of that world still exists, but now it's just as likely that you could be one of 250,000 designers seeking work everyday on the Internet site "99 Designs." Each day your potential employers arrive at your virtual desk, offering a few hundred to a few thousand dollars for the work that they need done—logos, letterhead, websites and more. You, and thousands of others, race to compete for these jobs by designing samples and showcasing portfolios, hoping to catch the eye of those who need work done. At the end of the day, one designer is selected, and the rest go elsewhere for work. Even the best designers on this site lose more work than they win, competing every day for their next job.

While not everyone faces competition that fierce, most will need to revamp their skills each year in order to keep the jobs that they've been given. Reid Hoffman, the founder of LinkedIn, was quoted recently commenting on the phenomenon of needing to retrain yourself on the fly, "If you think you're finished, you're finished. Today, everyone needs to be a work in progress." And Andrew McAfee, a researcher from MIT commenting on the rise of automation and the elimination of jobs by computer, was quoted as saying that he would make sure "children's education is geared toward things that machines don't appear to be very good at."

So what kind of skills will win out? Well, a review of the most rapid growing jobs, such as those in the fields of technology and health care, reveal a distinctive pattern. It's a need for critical thinking, problem solving and logical reasoning. It's a demand for creativity, innovation and entrepreneurship. It's a desire for passion, grit, and resilience in the face of hurdles and complex problems. It's exactly the kind of skills developed by Internet-connected learners who build global personal networks for learning, augmenting their skills in areas of interest every day.

And, it's the kind of skills that were thought as valuable in the 20th century, but not valuable enough to regularly find their way into the curriculum of most of our schools.

Service Agencies Driving 21st Century Learning

The real key to this transformation in our schools often comes from our service agencies. A transformation this large needs to be done collectively, and it needs to be led by people with vision, capacity and resources to solve complex problems. Most school leaders are too embattled by day-to-day challenges to pull this off on their own. By contrast, service agencies often have the ability to provide products and services at scale that can drive this kind of change, and their leaders have the ability to co-construct a vision with busy school leaders to take on this level of change.

At BrightBytes, our researchers have developed a platform called “Clarity” for Educational Service Agencies and their schools to drive the transformation toward 21st century learning. It’s a data platform, but it’s unlike any data platform you’ve ever seen. It takes dry, uninteresting and underused data, and it makes it educative, engaging and actionable by combining world-class research with beautiful infographics. It also collects new data quickly and easily. In short – it actually enables data to drive transformation from 20th century classrooms to 21st century learning environments. Clarity is a popular tool that K-12 educational leaders use to make decisions using data.

Dozens of service agencies are using Clarity to drive the transformation of learning in thousands of schools, and, just as importantly, to target the delivery of services at their agencies more effectively to save time and money. This includes large service agencies serving hundreds of thousands of students in places like Texas and Pennsylvania, and more compact service agencies with just a few thousand students in places like Arkansas and North Dakota. Big or small, the analysis that they receive from the platform has been invaluable.

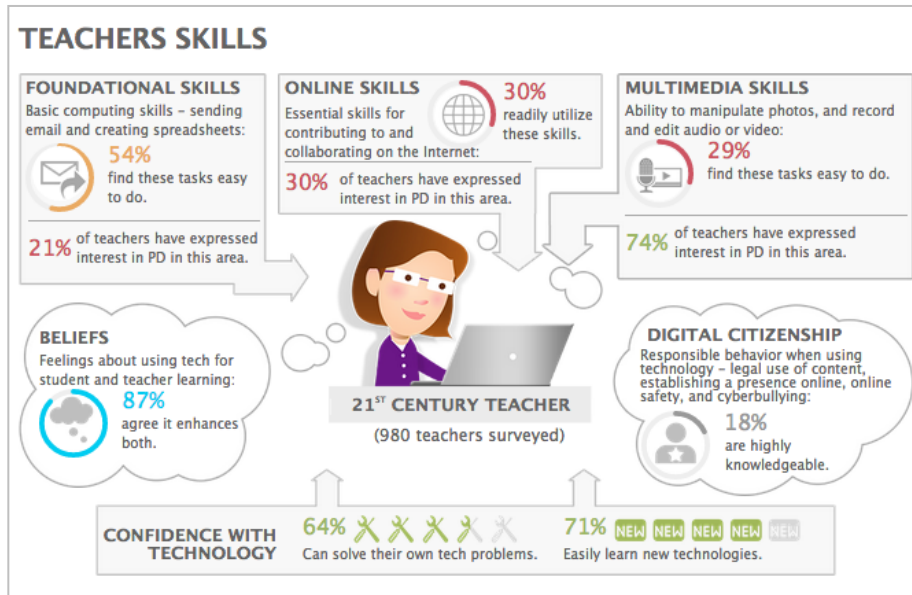
In one of the more visionary uses of the platform, all of the Area Education Agencies in the state of Iowa purchased Clarity on a three-year contract, with the intent of tracking 21st century learning across the state over the next 36 months. They made this commitment after many of them used Clarity last year, finding the tool idea for driving the kind of change described above. In fact, the instructional coaches within the state have adopted the Clarity 21st century research framework as a common framework to use when speaking with teachers and administrators in schools about the transformation. Finally, and perhaps most intriguingly, the AEAs have begun to explore how the platform can help them to identify cooperative statewide services needed by the majority of Iowa schools.

While each agency across the country benefits in different ways, here are just a few of the ways the platform has empowered service agency leaders. It has permitted agencies to:

- Quickly and easily determine the support needs of schools
- Save money by spending smarter
- Make professional development more impactful and more measurable
- Create a common language between the agency and districts that drives increased services

- Empower districts to make the case for increased budgets
- Improve relationships between the agency and their schools

Below is a sample infographic from the Clarity platform that conveys teacher skills in various areas in a visually engaging, actionable format:



How Does Clarity Work?

Clarity for Schools is an online platform that makes it easy for administrators to make quick decisions that save time and money while improving student outcomes. The secret? Transforming hard-to-use raw data into beautiful, intuitive, research-based analysis. This is data that administrators enjoy using because it is educative, engaging and actionable.

The platform is completely online, and it only takes a few weeks to implement. BrightBytes delivers a turnkey implementation, with very little work required by the service agencies or their schools. As part of the setup, BrightBytes assembles copious amounts of data about the schools, including demographic data, socioeconomic data, test score data and lots more. One of the most unique and powerful parts of the process is a set of adaptive, research-based questionnaires delivered to teachers and students, collecting data on their use of technology for learning and cross-referencing it within the school and across thousands of schools around the United States, and, increasingly, around the world.

It takes a unique combination of experts to make data educative, engaging, and actionable. BrightBytes Labs, the heart of the organization, has a unique team that makes this possible that includes data scientists to analyze relevant and diverse data sets; researchers to synthesize and analyze thousands of articles, studies and reports; thought leaders to contribute cutting-edge ideas in the field; and practitioners to provide ongoing feedback and focus the work on helping school leaders improve student learning.

But the best way to understand Clarity is to look at the results. So let's visit with a few places that have used the power of the research platform to use data to create 21st century learning environments.

Clarity in Action

Vignette: North Central ESD

Pete Phillips, Director of Technology, petep@ncesd.org

Demographics:

- Location: Washington
- # Districts: 29
- # Students: 40,000
- # Schools: 126

Challenge:

- Used data in the past that didn't provide clear information about what was and wasn't working
- Were well aware of the shift to personal learning, but didn't know how to implement it

Results:

- Clarity's infographic-based data painted a clear picture of strengths and weaknesses
- Districts found budgeting and purchasing power from the use of data
- Allowed more meaningful conversations between districts and the service agency

By-Product/Additional Benefits:

- Clarity allowed the agency to sell, rebrand, and support the entire product, allowing us to be the face of the service, improving their relationships and making the agency more valuable to the districts.

Actions taken:

- Created workshops that target very specific skills and used more streamed, online "New School" opportunities that integrate the technology seamlessly.

When Pete Phillips thought about how to use data to drive personal learning, he found that the tools he had were wanting. "The need for instructional technology data coupled with the "Shift" that is taking place in our classrooms had driven the need for a more purposeful [tool], providing answers to the real questions that are being asked about technology implementation."

Enter the Clarity platform. The data that Clarity unearthed was unlike any other tools he had tried in the past. The questions directly focused on 1:1, BYOD, technology integration,

skills, and connectivity, both inside and outside of the classroom. This was hugely comprehensive and painted such a clear picture of what needed to be done. “The selling point for us is the presentation of the data results. The infographics paint a clear picture of the survey results, allowing us to get a quick overview of strengths and gaps as well as dig into the data at a much deeper level.”

In addition to these aspects, there were also a lot of administrative aspects of Clarity that made Clarity, in Pete’s words, a “no-brainer,” including the ease of use, the amount of time it takes to configure, setup, administer, and rollout, and the 100% support from BrightBytes through onboarding and beyond.

“We have known for a while that making learning personal gains the highest achievement and makes learning applicable for all students. Clarity allows us to answer the questions we have about implementing personal learning for all students. This tool has started to allow the conversation [around 21st century learning] to have a purpose. It felt like we had questions about how to budget, purchase, and implement new devices and software, but there was never a clear way to determine the effectiveness of the results. Clarity can assist our districts with real data that brings to the surface the gains we are looking to make by integrating technology.”

Vignette: Heartland AEA

Sheila King, Executive Director, System Supports, sking@heartlandaea.org

Lance Wilhelm, Director of Technology, lwilhelm@heartlandaea.org

Additional contributors:

Denise Krefting, Instructional Technology Consultant

Travis Wilkins, Instructional Technology Consultant

Steven Hopper, Instructional Technology Consultant

Demographics:

- Location: Iowa
- # Districts: 53
- # Students: 143,171
- # Public schools: 345
- # Non-public schools: 28

Challenges:

- Didn't have a systematic way of helping schools assess their progress in the area of technology

Needs:

- A new way to help schools get better information about their current state and which professional development and technology efforts would drive improvement

Reason for choosing Clarity:

- Use the data to permit districts, schools, service agency leaders, technology personnel and professional developers to align and focus the services provided

Actions taken:

- A district that recently went 1:1 in grades 6-12 found professional development gaps that they needed to address to have the technology more deeply impact learning
- Approaching professional development plans using Clarity to group districts into areas of similar need
- Using follow-up data to measure long-term impact and sustainability of initiatives

Results:

- Finally had a clear focus for where to concentrate PD efforts – this resulted in more meaningful PD opportunities
- Saved dollars by streamlining PD and tech initiatives (grouped districts with similar needs to achieve this scalability)
- Data helped drive discussions with better understanding of results
- Fostered discussions on 1:1, PD, curriculum, 4C's, digital citizenship, and much more. Clarity helps us position these as integrated curricular issues that impact all that is done in the classroom, not just "tech"

By-Product/Additional Benefits:

- Fostered collaboration amongst AEA leaders
- Used survey data to focus requests that were being received by member districts
- Provided an instant connection/common language for the value that AEA can provide
- “With the addition of the 21st Century skills from the Iowa Core added to the State Comprehensive School Improvement Plan, districts can use the data from Clarity as support for their CSIP in technology literacy. Clarity also gives districts the ability to use what teachers and students “see” in the classroom and allows them to add professional development that supports the areas of need.”

BrightBytes’ Clarity tool has helped the Heartland Area Education Agency to make a number of steps forward in their support and advancement of 21st Century learning in their schools and raise their value to schools at the same time. Clarity focused the internal conversations and vision for tech integration. “It is very helpful in getting everyone on the same page in determining where to start,” said Travis Wilkins, an Instructional Technology Consultant.

One of the particularly helpful aspects for this common conversation is the research framework embedded in Clarity for measuring 21st Century learning. Travis continued, “Clarity provides a framework to guide our conversation with districts and their initiatives. The data collected can be used to guide our support of their current initiatives, support of current PD, planning of future initiatives, and future support for staff.”

When thinking about delivering services, Steven Hopper added, “The data is being used by our agency to group districts according to patterns of similar need. Our team will plan PD opportunities targeting these needs and use follow-up Clarity data to measure the long-term impact and sustainability of our efforts.”

As Shelia King, Executive Director of System Supports, summarized “Our work with BrightBytes has added value to our districts as a service our AEA is able to provide. It has been a great opportunity for leaders in our AEA to work together, and it’s helped each of us use data to align and focus the services we provide locally.”

Vignette: Great Prairie AEA

Sally Lindgren, Coordinator of Technology, sally.lindgren@gpaea.k12.ia.us

Demographics:

- Location: Iowa
- # Students: 35,406
- # Schools: 113
- # Districts: 39

Challenges:

- In spite of good existing data, a lack of student use of technology, lack of student engagement with instructional strategies and little teacher use of technology

Needs:

- A mechanism to better engage students and teachers with technology.

Reasons for choosing Clarity:

- Clarity provided the use of Big Data to strengthen existing data sets. The framework was very similar to a framework of technology integration already in use at the AEA but Clarity enhanced their ability to collect better data.

Actions taken:

- Standardizing practice around Clarity factors to create greater equity of service
- Measure and monitor implementation
- Dialogues with district administrative teams, technology committees or advisory groups, and in smaller districts with the entire staff about the data provide the AEA with an opportunity to make recommendations for improvement and connect local those to AEA support.

Results:

- Improved conversations w/ district/building leadership about the importance and support of technology integration
- Increased demand for the 4C's course to be offered in school districts. The course has been offered 3 times this school year with 40 participants enrolled to date.
- AEA technology team responds to schools' needs in a more efficient, proactive manner.
- Greater impact from the team's work

By-Product/Additional Benefits:

- Statistically relevant data related to known factors that improve student achievement
- Iowa is not a sale for service state, however Clarity allows our technology team to work more efficiently and have a bigger impact in schools with similar needs.

Sally Lindgren is no stranger to using data to improve student achievement. She's been crunching numbers at her AEA for years, and yet, Clarity provided for her an important

missing link “Having a common data set, a common framework and a common terminology has improved opportunity for relationships with our schools and with other AEAs. It has given us the data to develop common activities to assist schools with technology integration.”

Sally works closely with a remarkable team of Media Directors that span all of the service agencies within the state, sharing with them the ways that she is using Clarity with her schools. That collaboration is leading to new ideas about how their service agencies can support and advance 21st Century learning, and it’s putting Iowa in the forefront of a global conversation about the changing nature of teaching and learning.

As Sally said, “Clarity has, and will continue to provide, the basis to focus our AEA work in schools. Instead of receiving requests for technology of the month, work is focused on specific Clarity data factors relevant to improving technology use and student achievement.”

Vignette: Carbon-Lehigh IU

Elaine Eib, Executive Director, eibe@cliu.org

Demographics:

- Location: Pennsylvania
- # Districts: 14
- # Students: 58,000
- # Schools: 90

Challenge:

- Previously offered districts consortium opportunities to purchase hardware and software that was believed to be beneficial, but didn't have raw data to prove. Schools had individually gathered some information but nothing aggregate.
- Needed a product that everyone could use. Some schools using technology in rich and exciting ways, but others who pay for technology and assume it's being used, but are not sure of the results. Needed a product that could cover both.

Needs:

- A higher level thinking around how to use data – depth and breadth at the same time, not just quantifiable data results, but ones that can actually inform how to move forward

Reason for choosing Clarity:

- Clarity is a real multifaceted tool that addressed all service agency needs by being not just theory, but action
- Clarity shed light on how the expenditure on various technologies isn't necessarily matching the outcomes and truly engaging a 21st learning experience, bringing global opportunities to kids, etc.
- Ease of access, utility and simplicity were critical to having clarity succeed.

Actions taken:

- The data has led to the implementation of additional programs (PIL program) and initiatives (technology workshops, networking workshops, online PD, technology legal counsel and overdrive-shared online library collection). These continue to strengthen the dialogue and generate revenue
- Using the regional data, the C&I/Ed tech Department was able to target technology workshops to meet area educators' needs. Districts have implemented action plans for BYOD and 1:1 initiatives. (one district moved to 1:1 and one district adopted BYOD).
- Regional data indicated that the large majority of students have access to technology and the Internet at home. This data has led to an increased movement to BYOD implementation and started a dialogue on how flipped classroom can work in districts.

Results:

- United district leadership and educators around the shared topic of technology integration in our schools
- Strengthen the dialogue and generate revenue
- Strengthened the trust factors and relationships within and among the districts
- Districts have been more willing to share concerns/solutions about technology issues. Districts are sharing policies and procedures for implementation of 1:1 and BYOD
- Seven districts sent administrators to PD program on how to implement personal learning networks in their district.
- Driving conversations about the potential transformation that technology provides to students.

By-Product/Additional Benefits:

- Clarity has advanced the service agency's goal of *Reinventing, Revitalizing and Reinvigorating* (2012-2013 SY Theme) and has allowed them to share this movement with the school districts they serve.

Author

Rob Mancabelli is the co-founder and CEO of BrightBytes. Rob is a mission-driven educator, fascinating speaker and inspiring author on educational innovation. He's the co-author of the award-winning book *Personal Learning Networks*, and he writes for leading education magazines. Rob sits on educational advisory boards for Education Week, Dell Computer and Acer Corporation, and he earned his MBA from MIT with a focus on global innovation. Rob may be reached by phone at 646.334.9518, via email at Rob@BrightBytes.net, or on twitter [@RobMancabelli](https://twitter.com/RobMancabelli).

To learn more about Clarity for Schools by BrightBytes, visit <http://www.BrightBytes.net>.