Blackboard®

Metro Nashville Public Schools:

Evolution of a Digital District

Like many districts across the U.S., Metro Nashville Public Schools (MNPS) is transitioning to the next generation of academic standards incorporating the new Common Core State Standards (CCSS). While setting goals for 2018, district leaders uncovered three key challenges that they overcame with the help of teaching and learning solutions from Blackboard.

AT A GLANCE:

Challenge:
District leaders faced a series of challenges including student engagement, professional development, technology integration in the classroom, and college and career readiness.

Solution:
Academic leaders in MNPS leveraged Blackboard solutions to create a virtual school, train teachers, provide choice, and make learning personal.

Results:

- 5,000% growth in full-time Virtual School enrollments over five years.
- Over 1,500% growth in part-time Virtual School enrollments over five years.
- MNPS Virtual School now offers 72 unique classes contributing to at least $379,427 in cost savings each year.
- MNPS' graduation rate improved 32 percentage points over seven years.

- 5,000+ MNPS teachers completed online All Star Professional Development program.
- 83% of teachers are more comfortable using technology in the classroom.
- Improved and personalized instruction for 80,000+ students.
- $1,300,000 minimum savings from professional development through Blackboard in just year one.
- Systematic implementation of blended learning model.

Challenge:

Increase Student Engagement, Improve Technology Integration in the Classroom, and Prepare Graduates for College and Careers

As one of the largest school systems in Tennessee with more than 80,000 students, Metro Nashville Public Schools (MNPS) set bold goals to reach by 2018, foremost to be the highest-performing urban district in the country. To reach their goals, district leaders identified three key challenges:

1. Low student engagement and district graduation rate

2. Ineffective technology integration within learning during the transition to CCSS, and

3. Graduates' lack of college and career preparedness.

Solution:

Executive Director of Learning Technology and Library Services Dr. Kecia Ray and her team researched teaching and learning solutions to overcome their challenges. They selected Blackboard's solution, including both Blackboard's LMS and Collaborate, to serve as the teaching and learning foundation for online, blended, and professional learning within the district. By utilizing Blackboard teaching and learning solutions, MNPS developed a virtual school, created a comprehensive online professional development course, and systematically implemented blended learning.

Metro Nashville's Virtual School

Leading the field of virtual education with innovation and creativity while inspiring students to become stewards of their own education

With just 50% of its students graduating from high school, MNPS district leaders realized brick-and-mortar schools did not suit every student. Dr. Ray and her colleagues aimed to improve the district's graduation rate by providing as many opportunities for learning and graduating as possible. They also aimed to prepare graduates for college, career, and community. The team spent one year planning and developing a virtual school where students would use Blackboard solutions to access dynamic, individualized education for course credit, thereby giving them more choices and opportunities to learn. MNPS launched a Virtual Learning Program Pilot in fall 2010 and worked with lobbyists to pass new legislation allowing the creation and operation of a public online school. In August 2011, MNPS Virtual School became the first public online school in the state. What's more, they identified the *Characteristics of an MNPS Graduate*, promoting that every MNPS student take at least one online course.

MNPS Virtual School aims to provide students with an individualized, dynamic, and empowering virtual education developing graduates who are college, career, and community ready. At MNPS Virtual School, students can take one or more high school courses online while enrolled at their zoned schools, or they can enroll full time in the virtual school. Part- and full-time Virtual School students have the opportunity to complete both core requirements for graduation and elective options such as College Board approved Advanced Placement (AP), International Baccalaureate (IB) courses, dual-enrollment courses, as well as advanced credit for middle school students.

Virtual classes are led by a teacher and are organized into modules allowing students to work at their own pace, receive personalized instruction, and connect with the teacher for refinement and discussion. Within Blackboard, teachers and students collaborate using assignments, assessments, interactive rubrics, the retention center, announcements, blogs, and wikis for learning. Each Virtual School class is designed to personalize each student's experience leveraging Blackboard's adaptive release technology to ensure students demonstrate mastery on each concept before progressing to the next module of the class. In addition to these tools, the Virtual School uses Blackboard's integrated web conferencing technology for end-of-course assessment preparation, discussion-based assessments, coaching labs, tutoring, and to address physical location challenges to synchronous learning experiences. Blackboard's teaching and learning solution enables this type of unique, personalized, mastery-learning environment.

MNPS All Star Professional Development

Modeling pedagogy and technology from training to the classroom

In preparation for several new pressing initiatives including the transition to CCSS and district strategic plan, MNPS needed an efficient, economical, and effective way to train more than 5,000 teachers on their new education technology and pedagogical model. The Learning Technology Department created a professional development course in Blackboard that would "model the technology and style of teaching to their classroom," says MNPS Chief Academic Officer Dr. Jay Steele. Inspired by CUE's Rockstar model and composed of eight modules, the course took just three months to plan and implement due to the hard work and expertise of the Learning Technology team. The team recruited and trained 40 coaches and 170 trainers for both online and on-the-ground support for the course, which launched in February 2014. The competency-based online program takes approximately 19.5 hours, and teachers had up to five months to complete it. It eliminated face-to-face

Transition to Digital Content and Blended Learning

Preparing MNPS students for lifelong learning in today's technology-driven world

Piggybacking on their goal to ensure graduates' college and career readiness, MNPS developed a blended learning model pilot for select AP and IB courses. Powered by Blackboard solutions, the blended learning model allows teachers to teach some material face-to-face and some online. The pilot program aimed at preparing students for the online learning environments and teaching methods they will encounter in college and in the workplace. The pilot program, launched in spring 2011, provided helpful feedback for developing a district-wide AP/IB blended learning model in the 2012–2013 school year. Once teachers began implementing blended learning in their AP/IB classrooms, they "felt that it was so compelling in terms of student engagement that we began planning in the spring of 2013 to institute every class and go blended learning wall to wall within our school," says Dr. Susan Kessler, principal at Hunters Lane High School.

training time and gave teachers flexibility. The director of schools set the expectation that all MNPS teachers complete this professional development course and incentivized their participation—those who completed the course received a laptop, which could be purchased as a personal computer after three years for $1, as well as a digital badge via Blackboard Achievements.

The class incorporated the use of discussions, assessments, and rich media content, both audio and video, in Blackboard. Similar to Virtual School classes, the class was designed to personalize each teacher's learning experience and promote mastery learning through its innovative use of Blackboard's adaptive release and achievements technologies. Teachers were required to demonstrate mastery of each module via performance on the end-of-module assessment before moving on to the next learning module. At the end of successful completion of the class, teachers earned a digital badge through Blackboard Achievements. MNPS teachers gained familiarity with the technology they would be using in the classroom and what it should look like in a lesson— "That, to me, was the best thing for kids," says Steele.

> ### "We talk about the visual learner, the auditory learner, and kinesthetic learners, but really we have the technology learner now."
>
> **Dr. Susan Kessler,**
> Hunters Lane High School, MNPS

Results

Since embarking on its transition to digital learning, MNPS has achieved renowned success. Its virtual school is noted as Tennessee's first and leading public virtual school, as well as the world's first online school to offer a highly personalized virtual learning experience. Its blended learning pilot program laid the foundation for accelerated growth of blended learning in the district. And its professional development program helped make it all happen in a cost-effective, efficient way.

Personalized Learning and Choice

Since its launch in the 2011–2012 school year, MNPS Virtual School has seen steady growth in both full-time

704 STUDENTS

14 STUDENTS

AUGUST 2010   AUGUST 2014
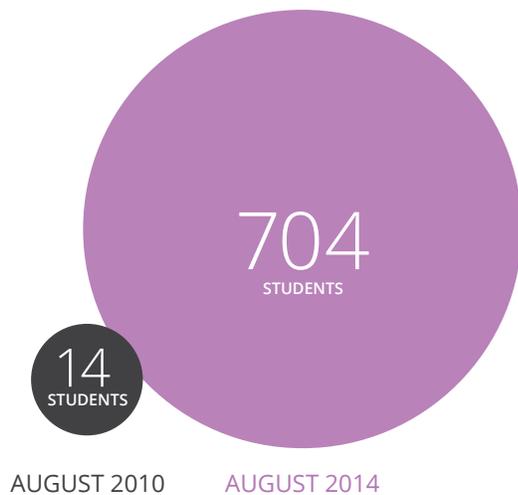
and part-time enrollments over five years. From August 2010 to August 2014, full-time enrollments grew nearly 5,000% from 14 students to 704 students, and part-time enrollments grew more than 1,500% from 29 students to 484 students. District leaders say the program is successful because it increases student engagement by providing choice in what, where, and how students learn.

Students enroll for various reasons, including but not limited to the following:

- Advanced Placement/enrichment.
- Scheduling challenges at zoned school.
- Courses not offered at zoned school.
- Accelerated graduation.
- Flexibility (single mothers, illness).
- Ability to travel and learn (Virtual School has served students with careers or with parents that require travel including country music, modeling, and motocross).
- Removal from non-optimal learning environment (bullying, gay and lesbian community, expulsion/ suspension).
- Preferred learning format.
- Credit recovery.

The learning opportunities provided to MNPS students through the Virtual School have contributed to a 32 percentage point increase in the district graduation rate since 2007.

Aside from enrollment growth, MNPS Virtual School has seen vast student achievement. It demonstrated the highest average percentage point gain in all End-of-Course (EOC) subjects during the 2012–2013 school year among MNPS schools with an average net gain of 23.18 percentage points. It also achieved the highest percentage point gain in Algebra I and Biology for the district. What's more, it is recognized as one of the highest-achieving schools in the district and earned the designation of an "Achieving" school for the 2012–2013 year. With 72 classes across high school, middle school and AP/Dual Enrollment, and eight subjects ranging from mathematics, language arts, and science and technology to social studies, fine arts, and business and marketing, the school's comprehensive curriculum and personalized learning has created opportunity and choice for students to achieve their goals.

72 unique classes

contributing to at least

$379,427

in cost savings each year.

MNPS achieved these gains with limited funds; the virtual school has one of the smallest school operating budgets in the district. Housed in just four rooms, it incurs minimal facilities and maintenance costs while serving full-time students at a lower cost than similarly sized schools and part-time students at no additional cost. In the cost-benefit analysis of providing online learning via the Virtual School conducted by MNPS, MNPS identified a minimum cost savings of $2,634 per virtual class offered. This significant savings represents the fact that offering a virtual class costs only about half of what a brick-and-mortar class costs the district to operate, and the analysis does not include facilities costs of brick-and-mortar classes such as transportation, food services, utilities, and maintenance. Virtual School's self-sustaining, tuition-based summer school program provides extended learning opportunities for MNPS students. MNPS Virtual School now offers 72 unique classes contributing to at least $379,427 in cost savings each year. As enrollments continue to grow, so will the savings to the school district.

The virtual school not only meets the needs and goals of students; it also provides opportunities to leverage expert and skilled teachers who require flexibility, such as retired master teachers who want to slow down, those on maternity leave, and mothers and fathers who want continue teaching while staying home with young children.

Quality Professional Development Modeling Classroom Best Practices

With the creation of an outstanding professional development program connecting district initiatives including CCSS preparation to the district strategic

plan, MNPS achieved success in many ways. Though it was the first time MNPS set a professional development expectation for every teacher in the district—**more than 5,000 teachers**—completed the course. Teachers experienced the blended teaching and learning model they would be using in the classroom. Firsthand, they learned to give students multiple opportunities to demonstrate mastery, experienced personalized online learning, and gained greater comfort using education technology. In fact, 83% of teachers reported that they are more comfortable using technology for instruction in their classrooms as a result of the training. Through Blackboard's Adaptive Release tool, every teacher experienced differentiated instruction and mastery learning. Their feedback indicated that they appreciated the flexibility of time and ability to preserve classroom time for instruction rather than training:

89% were satisfied with their All Stars Professional Development experience.

93% agreed they gained a better understanding of the district and the strategic plan through the class.

5,000+ teachers

85% liked the All Stars training model.

83% reported that they will pursue more online professional development opportunities.

MNPS achieved significant cost savings by offering the All Stars Professional Development experience online, rather than face-to-face. MNPS estimates that delivering All Stars 100% face-to-face would have cost a minimum of $1,620,000.00. The actual total cost of the All Stars program, delivered online, was only $320,000.00, representing a minimum savings of $1,300,000.00 in the first year alone. In addition to the financial savings, the preservation of three full instructional days with students for more than 5,000 teachers is priceless.

$1.3 M

All Stars Program
minimum cost savings

in the first
year alone

As a result of its initial success, the All Stars Professional Development class will serve to onboard new teachers; currently, another 800 teachers are enrolled.Previously, teachers were overwhelmed with information from every department. The systematic online approach will help new teachers see connections among all initiatives. Additionally, the district is developing a CCSS module for parents in an effort to eliminate myths and get parents on board with the new standards. MNPS will also conduct all compliance training online moving forward.

Transition to Digital Content and Blended Learning

The creation of a virtual school and the success of the MNPS All Stars Professional Development program laid the foundation for and accelerated the growth of blended learning in the district. Due to the success of the AP/IB blended learning pilot in spring 2011 and further growth across all AP/IB classes in the 2012–2013 school year, the district plans to systematically expand blended learning annually for both students and teachers.

With MNPS All Stars, academic leaders wanted to model a shift of focus from whole-group instruction to personalized, blended learning. Leaders believed it was important for teachers to experience learning the way they wanted them to teach. "I think one of the things that has been a great benefit for teachers is they're seeing how the tool [Blackboard] is being used," Instructional Designer Jason Bihler says of the All Stars Professional Development program. "It goes back to modeling, seeing the possibilities of using this digital technology and using it in creative ways to create engagement." With experience using the tools, teachers also gain confidence.

"We've taken what was an unknown to them and made it known so that they don't have to fear coming into their classroom," says Coordinator of Instructional Design Doug Renfro.

Now, 83% of teachers express that they are more comfortable using technology for instruction in their classrooms. The course has also created a buzz and a common vocabulary around blended learning. "Now, everybody in our district knows what a learning object is," says Dr. Kecia Ray. "There's a common vocabulary." Across the district, more teachers requested to use Blackboard in their classroom for blended learning. What's more, Dr. Kessler says the real winners are the students. **"For a lot of our kids, this is how they want to learn… It provides another avenue to get kids involved in what we're doing."** Students have online access to class resources and interactive tools and are able to prepare for lifelong learning in college and the workplace. MNPS All Stars Professional Development prepared the district to transition faster and more efficiently to digital content and blended learning.

In fall 2014, MNPS discontinued the use of social studies textbooks and transitioned to digital content in fall 2014 for all social studies classes grades 7–12, including history, geography, and economics classes. This year, the district plans to invest $1.1 million in digital resources and transition from textbooks to digital content and blended learning powered by Blackboard. MNPS leverages many Blackboard digital content partner integrations directly within the Blackboard solution including Florida Virtual School, Learning.com, and Discovery Education. Blackboard's partners' content is seamless integrated for easy use by teachers and students within the learning platform. To date, all social studies classes in grades 7–12, all AP/IB classes, and all Freshman Seminar classes are blended. In addition, all district eighth graders take an online High School 101 class, all ninth graders take an online Freshmen Seminar class, and an online capstone class is required for all twelfth graders. Each year moving forward, MNPS plans the same transition from print textbooks to digital content and blended learning for another subject area. For example, all mathematics classes will make the transition to digital content and blended learning next year. MNPS aims to complete a 100% transition to digital content and blended learning powered by Blackboard by 2018.

100%
transition to digital
by 2018

MNPS Virtual School Enrollment Growth

	FULL-TIME ENROLLMENT	PART-TIME ENROLLMENT
FALL 2010	14	29
SPRING 2011	22	245
FALL 2011	19	151
SPRING 2012	49	158
FALL 2012	74	375
SPRING 2013	65	383
FALL 2013	94	355
SPRING 2014	446	383
FALL 2014	704	484
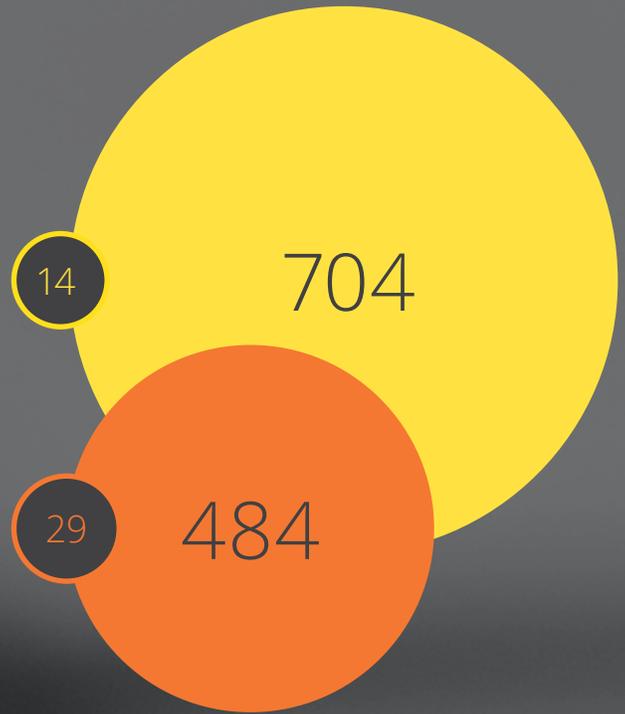
FIVE YEAR ENROLLMENT GROWTH:

FULL TIME: 4,929%
PART TIME: 1,569%

14

704

29

484

MNPS Virtual School Curriculum

CLASSES	MS	HS	AP
MATHEMATICS	2	9	2
ENGLISH LANGUAGE ARTS	2	8	3
SCIENCE & TECHNOLOGY	2	6	2
SOCIAL STUDIES	2	9	6
FOREIGN LANGUAGES	0	4	0
LIFETIME WELLNESS & PHYSICAL EDUCATION	1	2	0
FINE ARTS	1	1	2
VIRTUAL ACADEMY OF BUSINESS & MARKETING	0	7	1
	10	46	16

MIDDLE SCHOOL
10

HIGH SCHOOL
46

ADVANCED PLACEMENT
16

72 CLASSES
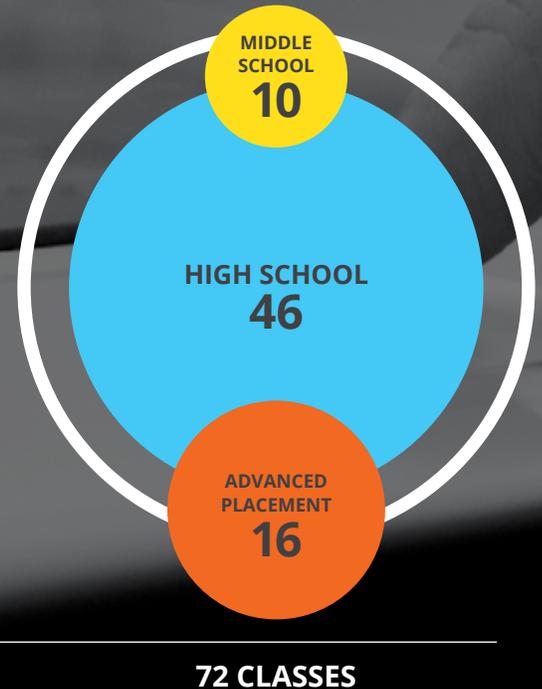
MNPS Digital Evolution Timeline

2008–2009:

- Director of Schools Dr. Jesse Register created academies, non-traditional schools, and smaller learning communities within comprehensive high schools
- Dr. Kecia Ray became Executive Director of Learning Technology and Library Services to lead creation of the Virtual School

2009–2010:

- Planned Virtual School
- Evaluated Learning Management Systems (LMS) and selected Blackboard
- Evaluated and selected course content for Virtual School
- Collaborated with lobbyists to create and support legislation to allow public virtual high school to grant course credit

2010–2011:

- Launched Blackboard solution to power online, blended, and professional learning
- Launched Virtual Learning Program Pilot as foundation for virtual and blended learning
- Tennessee General Assembly passed legislation allowing creation and operation of a public online school

2011–2012:

- Opened MNPS Virtual School as state's first public online school Set expectation that every student take at least one online course
- Set expectation that Blackboard solutions be used for blended learning model in AP/IB classes
- Dr. James Vince Witty named first executive principal of Virtual School

2012–2013:

- Opened the Thomas W. Hatfield Student Success Center at MNPS Virtual School. Gives students quiet place to work, internet/technology access; and academic, social, emotional support. Houses tutoring, EOC, and AP coaching labs
- Virtual School demonstrated highest average percentage point gain in all EOC subjects in MNPS with average net gain of 23.18 percentage points
- Virtual School achieved the highest percentage point gain in Algebra I and Biology for the district
- Virtual School recognized as one of the highest-achieving schools in the district and earned designation of an "Achieving" school for 2012-2013 school year
- Set expectation that Blackboard solutions be used to create blended learning experiences in all 9th grade classes across district

2013–2014:

- Launched High School 101 online class to all 8th graders and online Freshman Seminar to all 9th graders
- Extended ability to use Blackboard for blended learning to all teachers
- Virtual School launched The Virtual Academy of Business & Marketing, became first virtual school in world to adopt the Academies Model, offering career and academic themes to virtual students
- Set new requirement to provide professional development to all MNPS teachers for CCSS and PARCC assessments preparation
- The learning technology department created the framework for that online class and began outreach and collaboration with the leads of all departments to define learning targets, gather content, and create video introductions for each course module.
- Learning technology department began recruiting, selecting, and training coaches and trainers for online All Stars Professional Development course
- Launched MNPS All Stars Professional Development course. All teachers had eight months to complete the class
- Expanded teaching and learning foundation to Blackboard's Innovative Classroom Solution to power online, blended, and professional learning in MNPS

2014–2015:

- Transition from print textbooks to digital content in social studies across district from grades 7–12 with blended learning powered by Blackboard
- Require online capstone class for all MNPS 12th graders

Looking forward:

- Transition from print textbooks to digital content and blended learning with Blackboard in a new subject area per year (mathematics is next)
- Achieve 100% comprehensive transition to digital content and blended learning with Blackboard by 2018

MNPS ALL STARS PROFESSIONAL DEVELOPMENT CURRICULUM OVERVIEW

Welcome video from the Director of Schools, Dr. Jesse Register
> http://www.youtube.com/watch?v=xkG6mnzuUZ8&feature=youtu.be

Module 1: MNPS Education 2018
Dr. Jesse Register, Director of Schools
> http://youtu.be/KumQg8P6fzA

Module 2: Technology Essentials
John Williams, Executive Director for Technology & Information Services & Dr. Kecia Ray, Executive Director of Learning Technology & Library Services
> http://youtu.be/i_mRvYEYA5w

Module 3: Learning Platform
Dr. Kecia Ray, Executive Director of Learning Technology & Library Services
> http://youtu.be/-Qv_Z_e_TSo

Module 4: Implementing CCSS
Dr. Dave More, Executive Director of Instruction for Elementary Schools
> http://youtu.be/8NFrS87t2TQ

Module 5: Blended Learning Environments
Dr. Kecia Ray, Executive Director of Learning Technology & Library Services
> http://youtu.be/_UPbqDnWLhA

Module 6 Online Assessment Readiness
Dr. Paul Changas, Executive Director for Research, Assessment, & Evaluation
> http://youtu.be/iaGFWuWTDQU

Module 7: Response to Instruction & Intervention
Dr. Dorothy Crithlow, Executive Officer of Instructional Support Services
> http://youtu.be/O4enZtWD3b4

Module 8: Unit Planning
Kelly Henderson, Executive Director of Secondary Instruction
> http://youtu.be/VSTy0DvoOkM

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Learn More:

MNPS Virtual School Tour
> https://www.youtube.com/watch?v=quckkxtxnxc&app=desktop

MNPS Virtual School Website
> http://mnpsvirtual.mnps.org/page/mnpsvirtualschool

"Schools opt to shelve history books, go digital." Duane W. Gan, USA Today.
> http://www.usatoday.com/story/news/nation/2014/08/23/schools-opt-to-shelve-history-books/14499919

MNPS Strategic Plan "Education 2018: Excellence for Every Student"
> http://www.mnps.org/Page56840.aspx

MNPS Learning Technology Plan 2013 – 2016
> http://mnps.idlearningtech.org/wp-content/documents/2013-2016_LTPlanFinal.pdf

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END NOTES

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   > http://www.mnps.org/AssetFactory.aspx?did=90793

2. "MNPS v-Course Catalog 2014 – 2015." MNPS Virtual School, 2014.
   > http://www.mnps.org/AssetFactory.aspx?did=94962

3. Gan, Duane W. "Schools opt to shelve history books, go digital." USA Today, 23 Aug. 2014.
   > http://www.usatoday.com/story/news/nation/2014/08/23/schools-opt-to-shelve-history-books/14499919

4. MNPS Board of Education "Education 2018: Excellence for Every Student." 10 Sept. 2013.
   > http://www.mnps.org/Page56840.aspx

5. MNPS Students, Parents, Teachers, Administrators; Nashville Technology Council; PENCIL Foundation; Alignment Nashville; Nashville Area Chamber of Commerce. "Metropolitan Nashville Public Schools Learning Technology Plan 2013 – 2016."
   > http://mnps.idlearningtech.org/wp-content/documents/2013-2016_LTPlanFinal.pdf

Blackboard.com