



The History of Education Technology in Kentucky Schools

Kentucky K-12 has been and continues to be the pioneer and national leader in most aspects of education technology since 1992.

Kentucky Department of EDUCATION

Technology Assistance Team

A Technology Assistance team was established in every geographic region of the state consisting of a KETS Engineer (KE) and an instructional leader. This team played a crucial role in establishing the awesome customer relationship that KDE has with districts today.

Student Technology Leadership Program (STLP)

First in the nation to establish and provide a spotlight for students using technology to learn or help their school/community

Model Districts Selected

Eight model sites, strategically located across the state, selected to demonstrate how KETS would bring life to the vision of the Kentucky Education Reform Act (KERA)

First KDE Website

Created to provide enhanced communications to schools, districts, parents, researchers, other organizations and the general public

KETS Standardized on Ethernet

Adopted the Ethernet networking standard over Token Ring as the primary standard for school and district technology networks due to Ethernet components being much more affordable

Federal E-rate Program

Kentucky was the best-positioned state in the nation to take advantage of this new federal funding opportunity because of the state and district education technology plans and existing statewide education technology contracts for eligible components. Kentucky schools have received over \$545 million for telecommunication lines, Internet access and networking components since 1998 and remains among the top states in the nation in E-rate funds received. State level E-rate reimbursements funnel to districts as KETS offers of assistance (where they are matched 1:1) to support district eligible E-rate services thus creating a unique 3 to 4 bang for the dollar that assist districts' purchase of other instructional technologies.

Internet Safety and Security Measures (SB230)

Internet content safety measures for every school

KETS Phase 1 Completion

Provided a basic set of administrative and instructional education technology tools for every K-12 classroom, school and district office

2001-2006 KETS Master Plan for Education Technology

The 2001 Master Plan kicked off Phase 2 of the KETS, building on the basic EdTech toolset and focusing on the ongoing costs of maintaining and incremental replacement, the people costs needed, and the concept and value of shared services.

Instructional Device Upgrade (IDU)

Legislators appropriated \$50m to replace aging student and teacher workstations.

Kentucky Information Highway (Version 2)

Provided increased high-speed data and Internet capacity for every school and school district office

First KY EdTech Leaders Webcast

Scott County Schools hosted KETS leadership for the first district EdTech leaders webcast. This is a monthly event that has continued since then.

1992

Birth of Kentucky Education Technology Systems (KETS)

A direct result of the 1990 Kentucky Education Reform Act (KERA), KETS ensured basic and equitable anytime, anywhere, always-on access to instructional and administrative education technology services for all students, teachers and administrators.

1st Master Plan for Education Technology

The first Master Plan addressed instructional challenges of the 90's and beyond, as educators prepared Kentucky schools for the great changes to come as the world entered into the digital age.

First Microsoft Mail Implementation

First in the nation to have email capabilities for all students, teachers and administrators

Rollout of District Administrative System

First in the nation to provide a local area network, Internet and office productivity software to every district - Shelby County schools were the first pilot site in 1994-1995.

Every School District Connected to the Internet

First in the nation to connect all school districts to the internet via high-speed network connections provided by the first Kentucky Information Highway Contract (KIH 1)

1995

MUNIS a Common Financial System for Every District

First in the nation to provide those applications deemed most critical: Accounts Payable, Personnel, Payroll, Budget, General Ledger and Purchasing

1997

Statewide Student Information System

First in the nation to implement a common statewide student information system

Statewide KETS Service Desk

First in the nation to provide dedicated education technical assistance to all school districts

Kentucky Virtual High School Launch

Every Kentuckian seeking high school level coursework provided opportunity to enroll in for-credit, enrichment or college preparatory classes taught by Kentucky certified teachers and receive credit from their local high school; courses delivered online to schools, homes and other places with Internet access available anytime and anywhere--meeting the needs of students

2000

Statewide Identity Management Service

First in the nation to provide enterprise directory services to all schools and districts allowing secure access to the Internet and web-based instructional material

Statewide Software Update System

Provided a uniform and timely method to download and distribute Microsoft software and security updates for all K-12 Windows workstations and servers

Statewide Antivirus System

Provided antivirus licensing and management services for every district and school including all K-12 Windows and Apple computers and servers

2004

First Statewide STLP Championship at Rupp Arena

Started as statewide celebration and competition of student technology use-- By 2017, attendance has grown to 14,000.

2005

2006



The People Side of Education Technology

First in the nation study and tool that addressed the people side of K-12 education technology.

Infinite Campus Migration to the Cloud

Partnered with Infinite Campus to add security, improve efficiency and reduce statewide costs by leveraging a private cloud environment for the Kentucky Student Information System.

School Cloud Firewall

First in the nation to implement a complete cloud based firewall security service for every school district.

William T. Nallia Award

KDE received the William T. Nallia award from the Kentucky Association of School Administrators that reflects a spirit of innovation and cutting-edge leadership while bringing higher levels of success to all children.

Successful Pilot of Future KY K-12 voice/telephone communications via the cloud by KDE the agency, KSB and KSD.

EdScoop's EdTech Heroes Award

KDE received the EdTech Heroes Award as one of the top 25 states making a difference in "EdTech Heroes: 25 State Leaders Making a Difference," a project that highlights states that demonstrate innovative practices and leadership in harnessing technology to support education.

Largest Statewide MUNIS Disaster Recovery Test

Successful completion of first statewide disaster recovery test of cloud-based KY K-12 financial services (MUNIS) used by all school districts.

KY K-12 Online Testing – High School End of Course

Highly successful first, large-scale "field test" of online testing in KY K-12. A total of 131,442 test sessions were administered to 97,747 students representing 169 school districts. This included end of course assessments for grades 9 through 12 in biology, Algebra II and English II.

KDE's KY K-12 EdTech presentation to US Congress committee in Washington DC; KY K-12 is the pioneer and overall national leader in most aspects of K-12 education technology

KDE was chosen by Chief Counsel of State School Officers (CCSSO) to present KY K-12 EdTech successes over the past 25 years and to represent the other 49 states on recommended approaches to K-12 cybersecurity.

Statewide KETS Service Desk Reaches Milestone of Service

Reached major milestone of 250,000 service requests by our in-house, dedicated education technical assistance team to all school districts.

2018 – 2024 KETS Master Plan for Education Technology
This next phase of the Master Plan builds upon the successes of the previous plans back to 1992 and includes items KY K-12 continues to do well, areas to improve upon and new items to be integrated. The studies, research, standards, governance and technology needs for the state and districts that play a critical role in executing the Master Plan are also identified.

KY K-12 Email Upgrade/Transition to Microsoft/Google Email

Based upon feedback from KY K-12 district EdTech leaders, students and teachers, added Gmail as a KY K-12 product standard to our existing KY K-12 e-mail standard of Microsoft Office 365 e-mail for a better experience using Microsoft's Education tools and Google's G-Suite. Two-thirds of districts chose to upgrade to the current version/design of Microsoft Office 365 and one-third of the districts chose to transition to Google's Gmail.

PBS Learning Media Launch

Created a new partnership between KET and PBS bringing more than 100k standards-aligned video resources free to Kentucky school districts.

Data Visualization Tools

Enhanced the overall value and intuitiveness of the Student Information System (Infinite Campus) through use of interactive data visualizations created in Tableau to provide school and district administrators easier access to real-time actionable data.

2017

2018

2019

Federal E-rate Rebate Program Maximized

\$50M applied for by KY K-12 for federal E-rate eligible products and service, which could lead up to \$120M in KY K-12 edtech buying power.

KY K-12 Online Testing – High School K-PREP

Large scale online summative K-PREP testing success of 180,000 tests for 90,000 of KY high school students that goes beyond the 2018 EOC test.

School Safety (SB1) Anonymous Reporting Tools for Schools

Voice and digital anonymous reporting tools mandated in 2019 school safety legislation (SB1) are in place.

Kentucky Educator Certification and Ethics System RFI

Request for Information (RFI) is in place to begin transition for the aging, unsupportable systems with a single, modern, cloud-based solution.

Updated KY K-12 Internet Services Capabilities for all 173 KY K-12 Districts

Using a different approach, upgrade/replace the aged electronics in each of the 173 KY K-12 Internet hub sites in school districts, which help all KY K-12 schools better connect to the existing KDE provided fibered on-ramp service to the Internet (aka, KIH3).

2019 Making IT Happen Award

KETS leaders recognized for multiple years with the International Society for Technology in Education (ISTE) award honoring outstanding educators and leaders who demonstrate extraordinary commitment, leadership, courage and persistence in improving digital learning opportunities for students - (2009, 2011-2013, 2015, 2016, 2018 and 2019).

New KY K-12 School Report Card (SRC) Suite

Introduced a new SRC having four components, with the primary focus of providing data that KY K-12 students and parents are most interested in seeing/known. The SRC is conveniently accessible through a mobile app and provides data that is easily understood by the average person. The card includes a near real-time portal for students and parents to securely access their current daily info (e.g., grades, academic assignments, class schedule, and attendance) and publicly accessible annual snapshots of school and district-level data.

First Academic Standards for Computer Science

Adoption by KY Board of Education and approved by legislature. Marks the first time academic standards for computer science have been developed and redefines Computer Science education in Kentucky. Technology Competencies as Minimum Graduation Requirement Beginning for students entering high school in the fall of 2020, graduation requirements include the ability to demonstrate performance-based technology competencies.

Computer Science & IT Academy Launch

Creation of a joint venture with OET and CTE to support rigorous computer science professional learning for teachers as well as teacher and student course support in the demonstration of computer science standards and industry certification exam vouchers in ALL computer science courses and pathways.

Statewide Creation and Expansion of Digital Learning Coach Network

With further commitment to the OET/ KETS' People Side of K-12 EdTech study, districts across the state began identifying Digital Learning Coaches (DLC) to provide support to administrators, teachers, students and parents and KDE launched the first ever statewide DLC support network. Their focus is to assist teachers in maximizing the effective use of technology for learning, differentiating instruction, and providing rigorous, relevant and engaging learning experiences for all students. Digital Learning Coaches provide a vital, real-time professional learning role for district-by-district customized digital learning experiences design, digital workflows, digital relationships, digital collaboration and student-design digital products (all of which are tied to remote and distance learning). Due to the strength and quickly proven value of this network prior to a global pandemic, district leaders are swiftly tapping more learning leaders to join the KY K-12 DLC Network.

Library Media Statewide Leadership Selected

Kentucky becomes one of only a handful of states to establish a dedicated Library Media leadership role. This new role will continue to push Kentucky K-12 public schools to nation leading boundaries and set new expectations for the role of library media leadership, instructional technologies, literacy, and learning.

Record Setting STLP Growth

The 2019 STLP journey began with 1800 STLP school team projects and close to 60,000 KY K-12 STLP students competing in November and December. Student participation in regional events grew beyond capacity and at such a high rate, a 9th STLP regional event was added to accommodate the increased participation in the nation's best and largest Student Technology Leadership Program.

2019

Kentucky Conducts the Largest and Most Successful K-12 Online Assessment in Kentucky History

KY once again broke new ground completing by far the most successful and largest "Field Test" to date of the KY K-12 online summative testing initiative and distinguishing KY from the nearby states that had failed. The numbers speak for themselves with 771,767 tests completed by 390,373 students across 3rd-8th and 10th-11th grades, and 172 KY school districts with near zero issues. No other state has come close to experiencing this level of success with deploying online testing for their K-12 students.

All KY K-12 Schools Quickly Pivot to NTI

In response to a global pandemic and due to KY's nation leading digital readiness, 100% of Kentucky public schools quickly pivoted to implement plans for continuation of learning through the statewide Non-Traditional Instructional (NTI) time program with heavy digital connectedness and technology enabled services tied to digital, remote and distance learning. Digital learning and collaboration saw new heights in KY K-12, due to our nation leading digital readiness. Had we not been putting the right things in place for the past 25 years, there would have been no way that we could have pivoted to nearly 100% digital experience options in all 172 school districts overnight. KY K-12 is "the" pioneer and "the" national leader in most aspects of education technology. Therefore, KY K-12 is in a much better position and prepared for online, digital, distance, virtual and remote teaching and learning due to more cloud based services than the other 49 states. Because of NTI, KY was able to not only keep going but finish the school year versus shutting down way early like other states.

First Totally Virtual KBE Meeting

The Kentucky Board of Education (KBE), in an effort to practice social distancing, held its first ever virtual meeting using Microsoft Teams where every KDE staff member, KBE member and other presenters were physically at different locations. It was streamed live and accessible to the public on the Kentucky Department of Education's YouTube channel meeting all requirements of KY's open meetings law. Kentucky's successful implementation is either the first or one of the nation's first 100% virtual board meetings complying with all provisions of open meetings law. Our model quickly set an example that KY school districts, other KY state agencies and other states across the nation recognized and requested our assistance in replicating for their virtual board meeting needs.

STLP State Championship Quickly Pivots to 100% Virtual Competition Instead of Cancelling

In response to the global pandemic, STLP quickly pivoted to host a 100% virtual state championship experience. Student participation was higher than expected and demonstrations were judged by virtual panels and countless volunteers. The live broadcast awards show had thousands of viewers with a record social reach. The journey to KY K-12 STLP State Championship began with 1800 STLP school team projects and close to 60,000 KY K-12 STLP students competing in November and December at our 9 regional competitions throughout Kentucky.

First Statewide Staff Password Requirements

First in the nation to implement a uniform strong password baseline for 100% of staff accounts within all K-12 districts and the Kentucky Department of Education

KY K-12 School Report Card (SRC) is Recognized One of the Nation's Best

Kentucky's School Report Card provides students, parents, schools, districts and communities access to the data needed to evaluate performance, plan for the future and celebrate successes. Data Quality Campaign recognized Kentucky's SRC as one of the best in the nation.

2020

2020

KDE First in KY State Government and One of the First In the Nation to Quickly Pivot to a 100%

Telework/Telecommuting Service

KDE staff and all 172 school districts made the fast mass quality transition to telecommuting, virtual meetings, distance digital learning, and virtual cloud operations services. However, had we not been putting the right things in place for the past 25 years, there would have been no way that we could have pivoted to nearly 100% virtual across an entire Department of Education and for all 172 school districts overnight. KY K-12 is "the" pioneer and "the" national leader in most aspects of education technology so KY K-12 is in a much better position and prepared in telecommuting, virtual operations, virtual resources, virtual meetings and cloud based services than the other 49 states since we've been doing all of these for over a decade. All 172 of our KY K-12 school districts are already connected by high speed, high quality, reliable fibered Internet service and all schools already have dense Wi-Fi within each school building. KY was the first state to have all of this in place for every school district throughout a state. All of this uniquely positioned KDE staff and our KY K-12 school districts to quickly transition and continue to provide services and instruction in light of the COVID-19 pandemic all while simultaneously further fortifying our already rock solid security posture.

Next Generation Internet Bandwidth Upgrade for KY K-12 Schools

KDE staff and AT&T moved KY K-12 schools to a 200 Gbps Internet platform in May. This upgrade provides K-12 students and staff in Kentucky access to a very safe and reliable Internet experience to support direct or distance teaching and learning. The amount of computers in KY K-12 and KDE is 8 times larger than the rest of KY state government and all local county governments combined and thus it should be no surprise given KY is "the" national leader in cloud based computing that we use 20 times more Internet bandwidth than the rest of KY state government and local county governments combined. We know of no other educational entity, worldwide, that has this amount of quality, safe Internet resource to support teaching and learning.

Kentucky K-12 Further Commits to Computer Science Growth

Kentucky continues to lead surrounding states and the nation in its dedication to expanding access to Computer Science (CS) for all students. Kentucky supports more Girls Who Code (GWC) clubs and co-curricular groups than any other GWC partner. Kentucky is also one of 18 states with seven or more of the Nine Policies to Make Computer Science Foundational for all students. Not even California, who boasts industries of innovation in technology, has met as many statewide CS policies as Kentucky. KDE has added a statewide dedicated K-12 CS Lead to organize professional learning programs for teachers, meet the requirements of the newly signed Senate Bill 193 to report on CS implementation efforts annually, and ensure that Kentucky's graduates compete in the 21st Century workforce. This dedication to CS will not merely guarantee that Kentucky graduates compete in the job market but will also empower them to rout their competitors.

Online Registration Available for all KY Schools

Utilized CARES Act funds to make online registration (OLR) available statewide to help combat the COVID-19 pandemic and ease back-to-school challenges. OLR allows parents and guardians to enroll their child from home, allows staff to process enrollments from home, and eliminates many of the paper forms passed between parents and staff. Infinite Campus worked in partnership with KDE to roll out OLR Prime in an expedited 30-day approach for the 2020-2021 school year.

Kentucky Expands KY K12 Internet Safety Beyond the School Campus

In response to the COVID-19 global pandemic and due to KY's nation leading digital readiness, Kentucky became the first and only state to leverage Internet Safety technologies on behalf of all schools and districts by expanding the K-12 partnership with Lightspeed Systems to ensure that 100% of all students, teachers, and staff have safe and protected access to internet resources while at school or at home. This statewide implementation helps districts manage distance learning programs more efficiently while effectively meeting both state and federal requirements as a technology protection measure.

Academic Standards Finally Become Machine Readable and Interactive with Interoperability

Kentucky Academic Standards (KAS) are now available for import into Infinite Campus and other digital platforms. KDE partnered with IMS Global and Infinite Campus to import KAS to all districts in July 2020. This interactive digital companion can provide direct support and vital linkage for teachers utilizing features such as progress monitoring, standards-based assignments (grading), and lesson planning in IC.

Revised Academic Standards for Technology

Kentucky again reaffirms the value of education technology to transform learning experiences through the adoption of revised Kentucky Academic Standards (KAS) for Technology. The adoption of 704 KAR 8:090 by the KY Board of Education was also approved by the legislature with an effective date of March 2, 2021. The KAS for Technology are required standards as they define the competencies that are tied to minimum graduation requirements, where all Kentucky graduates must demonstrate performance-based competencies in technology.

First Academic Standards for Library Media

For the first time ever, the Kentucky Board of Education (KBE) adopted and the legislature approved the Kentucky Academic Standards (KAS) for Library Media learning, 704 KAR 8:100, with an effective date of May 4, 2021. This marks the first time KAS for Library Media have been developed to further define the required learning standards when students are engaged through library media related learning. These standards are comprehensive and cross curricular as they fit into learning inside of other content areas. These new learning standards fit tightly into every school as every public school in Kentucky is required to have a library media center with a certified school library media leader.

The Year of 100% Virtual STLP

STLP responds to COVID-19 pandemic by shifting to an all digital format for an entire year. Thanks to years of foundational development, STLP was poised to take full advantage of district digital learning leadership, 1:1 initiatives, and KETS resources to overcome a pandemic to still provide relevant opportunities for students to participate. 100% of all STLP student-focused events/activities were successfully conducted virtually.

Digital Learning Coaches Exceed 550

A critical component of any successful digital learning initiative is the support provided by Digital Learning Coaches (DLC). Districts with these support structures in place are ready to collaboratively support digital learning strategies and workflows across grade levels, content areas and job classifications. Through the pandemic, districts realized the importance of these support roles, through the "People Side of K-12 EdTech in KY" and the network grew to exceed 550 DLCs -- a 285% growth.

Emergency Virtual Attendance Waiver Approved

The Kentucky Board of Education (KBE) officially approved a waiver of 702 KAR 7:125, Pupil Attendance for full time enrolled virtual students, on May 18, 2021. Not only did this provide necessary flexibility for districts seeking to provide virtual learning options for the 2021-2022 school year but it officially reaffirmed the value of virtual learning and provided some necessary measures and assurances detailing the anatomy of high-quality online and virtual schools, programs and academies.

Kentucky Becomes First and Only State to Provide Internet Safety and Protections for 100% of Schools to Meet New Federal Requirements

With the launch of new Emergency Connectivity federal funds for school districts (ECF), for the first time, the Federal Communications Commission (FCC) details a new requirement for CIPA (Children's Internet Protection Act) relating to every district-owned student device. This new requirement states that the CIPA technology protection measure applies to all student computers no matter where the student is located (anywhere, anytime, and always on). To date, almost 700K school and district devices are now loaded with a modern internet safety and protection tool and the ability to monitor and manage Internet usage for every district device. Kentucky K-12 becomes the first state nationally to have every school implement this new federal requirement for every student.

First KySTE KY K-12 CIO Virtual Summit Hosted

OET, in conjunction with our Kentucky Society for Technology in Education (KySTE) partnership, held our first 100% virtual CIO Summit on April 20 continuing our annual summit for the 8th year. Attendance and participation were outstanding with 87% of our districts (140 unique districts along with KSB and KSD) joining virtually to engage in facilitator-led conversation on upcoming edtech topics/strategies/approaches to gain the experience, knowledge and wisdom of our chief information officers.

2021

2021

Campus Learning Available to All KY Schools

Expands tools available to align Kentucky Academic Standards to curriculum and enhance communication tools available to all students, remote and in-person. Provides interoperability solution to districts to link Infinite Campus to other Learning Management Systems, including Google Classroom. Other tools include: Curriculum Planner, Unit/Lesson Plan/Assignment Library, Quick Assessments, Standards Portfolio and Progress Monitor and Score analysis tools. CARES Act funding utilized to offer a premium product to all schools and districts beginning with the 2020-2021 school year.

Equity Dashboard Provides Improved Data Interaction and Visualization inside Student Information System

The new Equity Dashboard suite provides visualizations of under- or over-representation of various demographic groups on several indicators and is designed to offer a "big picture" look to help schools and districts identify areas needing further attention. OET leveraged the existing Infinite Campus contract to build out the dashboard versus building a brand-new data system.

Internet Access Beyond the School Campus Expanded

At no other time has more progress and funding been available for Internet access beyond the school campus for KY K-12 students than the past two years. Ninety-eight percent had enough bandwidth available to regularly do their schoolwork beyond the school campus—two percent still don't. Similar progress has also been achieved with modernized Wi-Fi access in the buildings and other school campus locations (e.g., a school's parking lots).

Continuation of Crucial EdTech Services Right After Tornadoes of 2021

In the six months prior to the pandemic, throughout the pandemic and with the recent western Kentucky tornadoes, all KY K-12 cloud based Internet services (financial management services through MUNIS, school information management services through Infinite Campus, e-mail services through Microsoft 365 and Google, etc.) have been up and available to all 171 districts 99.999% of the time. Since 1995, Kentucky is the only state in the nation that has a KY K-12 product standard for both the Internet and financial management system services for all its districts. Being the national leader in cloud services is an edge that KY K-12 has on the other 49 states, which comes in very handy both in normal conditions and during recent disaster recovery situations. This provided the ability for all districts to immediately continue payroll services during a disaster by going to a neighboring district or any location with Internet access.

Launched Kentucky's First Comprehensive K-12 State Plan for Computer Science Education

The Kentucky Department of Education (KDE) continues ongoing support for strong computer science education with the creation of a dedicated K-12 Computer Science Program Manager within the Office of Education Technology, the annual computer science growth report and the development of a, first of its kind, Comprehensive K-12 State Plan for Computer Science Education.

Entire Kentucky K-12 Community Recognized for Heroic Efforts

The 2022 Stilwell Honorary Meritorious Service Medal was awarded to KY K-12 education technology district team members and the Office of Education Technology team members in KDE for going far above and beyond to help through the pandemic as technologies were thrust into the spotlight to keep school and learning services operating at the highest possible levels. The honorary medal reads: "In Recognition of Heroic Efforts March 2020 to March 2022—Presented By The Office of Education Technology, Kentucky Department of Education"

Single Sign-On (SSO) with Kentucky Virtual Library

For the first time in state history the KDE provided access to the Kentucky Virtual Library (KyVL) through a safer, more secure login for students and teachers with Single Sign-On (SSO) technologies for improved ease of access to the KyVL resource library.

Student Technology Leadership Program (STLP) State Championship Reconvenes In-person with over 14,000 in Attendance

The Kentucky STLP State Championship was hosted on April 20, 2022. This was the first large-scale event at the new Central Bank Center with every area of the facility being maximized for student demonstrations of learning through technology infused project-based learning. For the first time in the STLP state championship history, the Kentucky Board of Education and the KDE Executive Leadership Team were on-site to experience this annual event.

2022

Kentucky Educator Credentials System (KECS) Launch

In early May 2022, KDE's Education Professional Standards Board (EPSB) support organization transitioned to KECS, a new teacher/principal licensing system. Kentucky grants or renews ~34,000 professional teaching and administrative licenses every year. With RANDA Solution's cloud-based workflow system, the effort required to apply or renew an application has been cut in half, the process streamlined, and several home-grown, in-house written applications were retired and replaced with a modern, cloud-based solution. 171 Superintendents, ~200 District HR Reps, and ~35 college personnel, along with ~16 KDE staff were trained or given access to training and are now using the system to process renewals and new license requests, with thousands of teachers and principals using the system to renew or apply for new licenses.

Updated "The People Side of K-12 EdTech" Study

Presented major updates to the original study to account for the new proposed "People Side Formula". This update also includes new considerations for education technology staffing and role strategies, as well as considerations for time, talents and tools.

Kentucky K-12 EdTech Not Only Survives but Thrives Throughout Covid-19 Pandemic

KDE staff and the KY K-12 environment remained uniquely poised to quickly pivot to virtual meetings, distance digital learning, and virtual cloud operations services as we successfully navigated through a second one of a kind school year. KY K-12 is "the" pioneer and "the" national leader in most aspects of education technology so KY K-12 is much better positioned and prepared for telecommuting, virtual operations, virtual resources, virtual meetings and cloud based services than the other 49 states since we've been doing all of these for over a decade. These past few years have put an unprecedented load on all our systems and major services, yet we thrived and did so while continuing to implement new projects, upgrade services and provide connectivity and availability with 99.98% uptime.

Largest Digital Learning Coach Summit Conducted

OET, in partnership with Kentucky Education Television (KET), held the annual Digital Learning Coach Summit. Attendance and participation were outstanding with over 250 leaders connecting and sharing.

Preparing/Building for the Future

During the COVID years, KDE and Kentucky school districts made record improvements to the technology components and services supporting the learning experience from the classroom, home or in a hybrid model. We more than doubled the Enterprise Internet capacity from 80 to 200 Gbps and increased district Internet connections for 145 districts. We improved the service to district firewalls to support four-hour same day replacement, replaced aging Internet access equipment at school districts, and improved Internet safety for students, teachers and administrators while they worked remotely. We also launched a comprehensive effort to further improve Internet security/safety including identity protection measures for every student, teacher, and administrator. These improvement will support growth, safety and improve the overall digital experience.

One of First Five States to Implement Generate

Generate is the federal system for EDFacts reporting. KDE is a national pioneer for implementation and development of the new state-driven and managed solution that improves data quality, automates reporting, and standardizes and streamlines data processes.

Continuation of Crucial EdTech Services Right After Historical Flooding of 2022

Between July 25th and July 30th, 2022, unprecedented rainfall brought severe and historic flooding to parts of Southeastern Kentucky and severely impacted multiple school districts with some school buildings being completely submerged. Loss of power and other wire-delivered services lasted for days and sometimes weeks. During the flooding and afterwards, impacted districts remained with quality Internet services and cloud-based financial management and school information services to support ongoing payroll and student support/learning services.

Statewide Implementation of Campus Analytics Tools

Partnered with Infinite Campus, using ESSER funding, to enhance tools readily available to teachers and school leaders for data driven decision making. Enhanced analytics to support Early Warning, Assessment, Behavior and Attendance visualizations along with a personalized dashboard for monitoring key data.

2022

2023

2024

2023

Enhanced Identity Security Initiative

The education environment, including K12, continues to be the most targeted by cybercriminals, far outpacing other industries such as healthcare, banking and manufacturing. As a statewide response to these threats in Kentucky, all public school districts were provided the training, licensing, and implementation assistance to ensure that staff and teacher access to online technology resources is protected with multiple layers of enhanced account security functionality.

MUNIS Upgrade

Kentucky School District Finance Officers completed a significant security project to improve overall security and user experience of the MUNIS application. One less password for the district Chief Financial Officer (CFO) to remember results in a better, more secure password by applying Multi Factor Authentication (MFA), consistent password strength, and Azure AD monitoring of account threats. This is an overall move into the Connected User Experience.

2023 Making IT Happen Award

KETS leaders have been recognized for multiple years with the International Society for Technology in Education (ISTE) award honoring outstanding educators and leaders who demonstrate extraordinary commitment, leadership, courage and persistence in improving digital learning opportunities for students - (2009, 2011-2013, 2015, 2016, 2018, 2019, 2020 and 2023).

Student Technology Leadership Program (STLP) - Record Setting STLP State Championship Growth

The 2023 STLP journey began with over 1800 STLP school team projects and more than 60,000 KY K-12 STLP students competing in the numerous, yet expanding STLP categories. Participation in the State Championship broke all previous records with 114 school districts (10% increase), 488 schools (20% increase), 13,256 students (63% increase) attending and participating LIVE! The 2023 state championship event also saw the first ever event using every available square foot for student demonstrations at the new Central Bank Center and Rupp Arena in Lexington, where a record number of school buses were ushered in to drop students off at the championship to compete. The STLP State Championship event is proving to push the scale and capacity as the largest student facing event in the state of Kentucky.

Transition to Next Generation K-12 Internet Service

All 171 K-12 Public School Districts, Kentucky School for the Blind (KSB), Kentucky School for the Deaf (KSD), and KDE have transitioned from a long-term provider of the network to the Next Generation K-12 Internet services provided by Education Networks of America (ENA). The transition to the ENA provided network was implemented within 9.5 months (October 2023 - July 2024). This new network provides associated network services meeting current requirements, allows for high performance and reliability including at least 1 Mbps per student of bandwidth for every district, provides modern and high levels of security and reporting, ensures robust and scalable internet services will be capable for the next 10 years maximizing state and federal funding opportunities, and gives both districts and KDE staff at-a-glance visibility into the health status of the network.

Artificial Intelligence (AI) Guidance for KY K-12

As an Area of Emphasis in our KETS Master Plan 2024-2030, emerging technologies like AI are often met with a mix of excitement and apprehension, especially in K-12 education. KDE became one of the first states in the country to publish guidance for the safe, secure and responsible uses of artificial intelligence for K-12. This guidance brief (and study) provides a foundation for implementations in Kentucky K-12 public schools.

Kentucky K-12 Student Technology Leadership Program (STLP) 30 Year Anniversary

The Student Technology Leadership Program (STLP) surpasses a major milestone in celebrating the 30th anniversary of the statewide student targeted program. In this 30th year celebration, the program continues to reach new heights with the largest ever and continued growth of student and teacher participation.

2024 Inductee into Information Technology Hall of Fame

KDE's Office of Education Technology (OET) was represented as only the second inductee from Kentucky ever chosen by Government Technology magazine for this recognition for the sustained commitment and success in education technology for KY K-12 since 1992.

2024 KySTE Lifetime Achievement Award

KDE's Office of Education Technology (OET) was represented as the first recipient of The Kentucky Society for Technology in Education (KySTE) lifetime achievement award in 2024 for the sustained commitment and success in education technology for KY K-12 since 1992.

Auditor of Public Accounts (APA) Special Examination of KDE by Public Consulting Group LLC (PCG)

In the July 2025 release of the most extensive review of the Kentucky Department of Education to date, the following is an excerpt regarding the Kentucky Education Technology System (KETS) as delivered by the KDE's Office of Education Technology. The report highlighted the program as one of the four noteworthy accomplishments pointed out in overall department operations. According to the APA: *"The Kentucky Education Technology System (KETS) is highly regarded as a forward-leaning, innovative approach to statewide school technology. KDE's technology functions are highly regarded by the district superintendents. Since creating KETS in 1992, the Office of Education Technology (OET) has strived to be a leader in innovative K-12 education technology with a mindset for continuous improvement. Numerous systems and technology resources are provided statewide, and KDE facilitates collaboration between the districts. Kentucky's educational technology effort is well organized and planned under the umbrella of KETS. KDE equips school districts statewide with technology systems and services that most other state departments of education do not provide. Some of the common technological functions and capabilities provided to public schools across the Commonwealth are:*

*Student information system (Infinite Campus)
Financial System (Enterprise ERP, formerly MUNIS)
Internet Bandwidth for every district
Regional system engineer support
Facilitation of district technology leader collaboration, instructional technology leadership, and a Student Technology Leadership Program
Cybersecurity and internet safety functions
Learning management system
Email and other common applications"*

Annual Computer Science Report Shares Record Growth

When comparing Kentucky to national averages from the Code.org Report, we are exceeding the national averages in several areas including:

- Kentucky is 15% above the national average in high schools offering (75% vs 60%)
- 17% more schools offering computer science when compared to other states with no Computer Science graduation requirement;
- 3% above the national average in the number of students participating in Computer Science during their high school career;
- One of the few states with a Middle School course code for Computer Science, and it is now the fastest growing course with the highest enrollment (4888 students).

KDE Launches KY Learning Hub

The KY Learning Hub is a centralized, free online professional learning platform launched by the Kentucky Department of Education (KDE) to serve all certified and classified educators in the state. It was designed based on educator feedback to provide a unified, user-friendly space for professional growth. This hub eliminates scattered resources by placing KDE-curated, cross-agency collaborative content, professional learning modules, and required role-specific training in a single one-stop-shop portal. Educators can log in quickly and securely using their standard district credentials. The KY Learning Hub (KYLearningHub.org) will also serve to replace several home-grown, custom applications such as the Professional Learning Bulletin Board.

New AI Resources Published

OET published comprehensive Artificial Intelligence (AI) resources to further meet the demand and requests by school district leaders. New resources located here: [AI in KY K-12](#). New resources included updated AI Guidance Brief, AI in Action detailing current snapshot of KDE-driven AI implementations throughout KY K-12, new resources by the Southern Region Education Board (SREB), as well as other key best practices with Artificial Intelligence adoption.

KySTE to KAST Evolution

Kentucky Society for Technology in Education (KySTE) officially rebranded and changed its name to Kentucky Association for School Technology (KAST) in March 2025 during its annual Spring Conference and was implemented fully throughout the 2025-2026 school year. The transition better reflects the diverse mix of its members—KAST supports not just educators, but also school leaders, district technology coordinators, IT technicians, and Student Technology Leadership Program (STLP) sponsors. The organization continues to serve the Commonwealth with the same mission, signature fall events, and the large annual state conference and is the premier Education Technology professional organization in Kentucky—of which the KDE has held a long standing, close partnership with districts.

2025

2026

Kentucky K-12 Healthy Data Diet: Reducing Cybersecurity Risk by Removing High-Value Identifiers

A KY K-12 Healthy Data Diet includes continually seeking opportunities as well as responding to circumstances that require reducing the amount of data collected and stored to only what is absolutely needed as well as removing outdated data. OET has taken another monumental step forward in adopting and maintaining the KY K-12 Healthy Data Diet. As part of this ongoing effort, student Social Security Numbers (SSNs) have been removed from Infinite Campus State Edition and the collection and use of student SSNs have been significantly reduced through new tools in the Infinite Campus student information system. KDE has also further protected the advertisement of KY K-12 email addresses from cybercriminals, which often serve as a primary entry point for cybercriminal's cyberattacks that use phishing techniques to target and obtain access to sensitive information in KY K-12 organizations. Because K-12 education data remains a top target for cybercriminals, student SSNs and emails are highly valuable if compromised. By eliminating unnecessary collection, storage, and availability of these identifiers, KDE and districts are significantly lowering cybersecurity risk and reducing exposure of these identifiers. KDE's cross-agency Data Governance Committee continues to lead the Kentucky Healthy Data Diet efforts to produce lean, reliable, low-risk data supporting statewide decision-making, accountability, funding, and student services. KDE also started a project to reduce outdated information and to make it easier to find current, relevant information on the KDE website.

A Historic First: Kentucky Launches Statewide GoGuardian Integration

In a major milestone for digital learning, Office of Education Technology (OET), transitioned to GoGuardian as its unified statewide Internet Content Management System (ICMS). Kentucky is the first state to bring together all public school districts under a single GoGuardian deployment. This cloud-based implementation delivers consistent, device-level internet filtering across 1M+ district-owned student and staff devices, helping protect both students and adults on and off campus. Beyond core filtering, the platform provides enhanced reporting and automated alerting to help districts quickly identify and respond to potential threats. By establishing a unified statewide approach, Kentucky is strengthening safety for students and staff, improving network visibility, and setting a new benchmark for coordinated digital security in K-12 education.

The Nation's Largest and Most Successful K-12 Online, High-Stakes Assessment Reaches New Heights

KY continues its success with student online testing venues for the 7th consecutive year. The Kentucky Summative Assessments (KSA), at 1,582,370 successfully completed tests, continues to exceed expectations and carried the largest overall average of completed tests in the past 7 years. KSA results, which measure proficiency and progress on the state content standards, were returned exceptionally fast to teachers and school leaders. 1,757,270 total tests were completed during 2025-2026 school year testing windows by students in 3rd through 11th grades across all 171 KY school districts with near zero issues. This total includes additional online testing sessions from Career and Technical Education with the E-SESS online system for End-of-Program assessments and Tech Ready Apprentices for Careers in Kentucky (TRACK) Pre-Apprenticeship Assessments, Spring SAT testing on the online platform measuring college readiness levels in core academic content areas, WIDA/ELL (English Language Learners), and AP Bluebook Online Testing. No other state has come close to experiencing this level of sustained success with deploying online testing for their K-12 students at this scale.

Kentucky K-12 Modernizes Critical Internet Network Services with Infoblox

In a decisive move to modernize the statewide K12 digital foundation, Kentucky successfully retired legacy infrastructure in favor of a next-generation network services solution. By deploying industry-leading Infoblox technology for core Domain Name Server (DNS) and Dynamic Host Configuration (DHCP) functions, Internet network reliability and performance statewide were significantly enhanced. This implementation—executed as a managed service by long-standing KETS partner, Volta, streamlines network operations and ensures a robust, scalable architecture ready to support the next decade of digital learning.

Kentucky Academic Standards (KAS) for Technology, Computer Science (CS) & Library Media-- Revision and Adoption

Every 6 years the KDE is required to work through each academic standards content area for revisions and modernizations. This year the KAS for Technology, Library Media, and CS will all be revised and adopted as K-12 comprehensive standards with grade level indicators.

The *KAS for Technology* defines the competencies in technology that are to be demonstrated by every high school student before graduating (minimum graduation requirements) from a Kentucky public high school. Additionally, while optional at the K-8 grade level, the revisions champion the scaffolding and building blocks towards successful high school demonstration of competencies. The CS and Library Media student standards serve as elective learning in kindergarten through grade 12. These standards are based on national frameworks and are designed for all students with identified cross-curricular connections. All three sets of academic standards will help establish a new emphasis for all learners connected to education technology and our current Master Plan for Education Technology. The *KAS for Technology* will be revised first going before the Kentucky Board of Education in August 2026.

2026

Kentucky K-12 Implements Next Generation Identity and Access Management (iAM) for all Public School Districts

In the summer of 2026, Kentucky reached a major milestone in digital modernization by completing the statewide rollout of "Rapid Identity."

This next-generation identity and access management (iAM) solution marks a pivotal shift in the cornerstone cloud-first strategy, streamlining the digital experience for every student, teacher, and staff member across the Commonwealth. By unifying access under a single, secure digital identity, a frictionless user experience is established while significantly hardening cybersecurity defenses. Key enhancements include:

- **Seamless Automation:** Identities are automatically provisioned via state-standard sources of truth (MUNIS & Infinite Campus), ensuring accuracy and real-time synchronization.
- **Tailored Security:** The platform offers K-12-specific authentication options designed for all ages and ability levels, balancing accessibility with stringent cybersecurity.
- **Advanced Threat Protection:** Managed by a partnership with Identity Automation/JAMF, this system provides robust safeguards against phishing cyberattacks, password vulnerabilities, and unauthorized access, setting a new benchmark for cyber-resilience in K-12 education.