The History of Education Technology in Kentucky Schools

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.

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.

1993

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

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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)1

1994

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.

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

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)

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 Erate reimbursements funnel to districts as KETS offers of assistance (where they are matched 1:1) to support district eligible Erate 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

1997

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

1998

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

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.

2001

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

2004

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

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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

2005

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.

First KY EdTech Leaders Webcast
Scott County Schools host KETS leadership for the first district EdTech leaders webcast. This is a monthly event that has continued for the past 11 years.

2006

2007

KATC Becomes KySTE
Kentucky Association of Technology Coordinators became KySTE (Kentucky Society for Technology in Education) and hire first executive director

2007-2012 KETS Master Plan for Education Technology
The 2007 Master Plan described how technology would be used to improve teaching and learning for all of Kentucky's children, building upon past successes and defining a path which enable all students to understand and leverage technology opportunities to realize their full potential while extending instruction beyond traditional school walls.

2008

First Stilwell Award
KDE instituted the Stilwell Award for those outstanding partners who helped KDE fulfill their mission to the students and citizens of the state. William E. Stilwell, namesake of the KDE Technology Award, was named first recipient.

KDE Open House
Launched as a "one-stop shop" for education data allowing schools, districts, parents, researchers and others access to key data on schools and districts

2010

Cloud Email
First and largest statewide implementation of cloud based K-12 email for every student, teacher and administrator.

KySTE Conference
KySTE moved its summer conference to the spring in the old Kentucky Teaching and Learning Conference (KTLC) timeslot (previously Kentucky Education Technology Conference/KETC).

Kentucky Student Information Mobile App
In partnership with Infinite Campus, launched the first student information system mobile app providing parents and students real time access to assignments, grades, attendance and more - The iOS app was introduced in 2011 and an Android version was available by 2012.

2011

First Online Statewide School Report Card
Kentucky first introduced an online school report card in 2012 that was recognized nationally by the Education Commission of the States as one of eight states with report cards that were accessible, informative and easily understood.

First All State Superintendent Webcast
Commissioner held first All State Superintendent webcast from the State Board Room at the Capital Plaza Tower in Frankfort

Digital Driver's License for Digital Citizenship Launched
KETS created a partnership with the University of Kentucky's Digital Learning Design Lab to launch an app focused on helping students and teachers learn the nine elements of digital citizenship.

First State Board Meeting Webcast
Kentucky Board of Education (KBE) began to webcast meetings with the first webcast conducted from the State Board Room at the Capital Plaza Tower in Frankfort.

2012

Paperless State Board Meetings
The Kentucky Board of Education (KBE) became totally digital for state board meetings.

KDE Notify App
KDE and Northern Kentucky University launched KDE's first mobile app for iPhone, Android and Windows devices focused on the status of education technology services.

Kentucky Virtual High School Grows
KDE shifts virtual high school experience from a state-ran model to a distributed partnership model (naming JCPS eSchool, BAVEL, and KET the original partners).

Data Quality Study
Partnered with Gartner to define best practices for collection and stewardship of education data

Non-Traditional Instructional Time Legislation
All 173 public school districts became eligible to apply to conduct "non-traditional" student attendance days due to weather or other emergencies formerly known as the "Snow Bound Pilot." Approval provided the opportunity to conduct school through virtual or other non-traditional means on days that the district would have normally had to cancel school.

Wireless Access on School Buses
Schools implemented wireless Internet access on school buses to give students access to education technology tools while commuting to and from school.

2013

2013-2018 KETS Master Plan for Education Technology
The 2013 Master Plan closely aligned with the P-12 education strategic plan of the state and districts, and was further informed by relative studies, research, audit and survey results, and customer feedback. For the first time, the Master Plan was delivered in an online digital format.

MUNIS Transition to the Cloud
First and largest in the nation to provision cloud based financial service for K-12 and any type of government organization

BrightBytes Partnership
BrightBytes helped KDE and school districts better understand, through EdTech data, more about the usage and impact of digital tools and resources for students, teachers, and parents.

eTranscripts
First state to use a common transcript and electronic process for college admissions statewide - All public high schools, and both public and private postsecondary schools participate.

Recognized as a Top 3 State in Data Quality
KDE was recognized nationally by the Data Quality Campaign for best practices in data collection and use of educational data to improve student achievement.

2014

Single Sign On (SSO)
First in the country to provide the ability for every student and teacher to access Chromebooks and Google resources via their Office 365 credentials.

Creation of OET's Digital Learning Coach Leadership Team
Designed to support districts through leadership & professional learning as well as resource identification and best practices for implementation of digital learning strategies.

2015

KETS Infographic
An accumulation of education technology data that visually presents important data trends

Internet Safety and Content Management
Established statewide product standard for Internet content management service.

Kentucky Information Highway (Version 3)
First in the nation to connect every school with high speed fiber and meet the national standard of 100kbps for every student

Government Technology Magazine's "Doers, Dreamers and Drivers" Award
KDE named one of Government Technology's Top 25 Doers, Dreamers and Drivers for 2016, for finding innovative ways to cut through public sector barriers to improve and maximize services to the state.

2016

Created a National Model with KY's First IT Academy
Now called Microsoft Imagine Academy, KETS established a new strategy for championing industry recognized IT student certifications.

STLP on KET's "Education Matters"
Filmed live at STLP state championship at Rupp Arena, the video highlighted the impact of KETS and instructional technology across Kentucky.

2017

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.

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.

Federal E-rate Rebate Program Maximized
$50M applied for by KY K-12 for federal E-rate eligible products and service, which could lead to 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).

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)

2018

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 a 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 Council 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
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 100,000 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.

First Academic Standards for Computer Science
Adopted by the Kentucky KY Board of Education and approved by the legislature to mark development of the first academic standards for computer science, the standards redefine 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.

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/knowing. 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.

2019

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.

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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

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.

First Statewide Staff Password Requirements

First in the nation to implement a uniform strong password baseline for 100% of K12 staff user accounts.

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 to the Home

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 K12 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.

2020

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 also streamed live and accessible to the public on the Kentucky Department of Education's YouTube channel to meet 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 (e.g., Colorado) across the nation recognized and requested our assistance in replicating for their virtual board meeting needs.

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.

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.

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.

2020