Kentucky's K-12 Digital Readiness

We are headed toward greater and more meaningful digital interactions between family, school and community. We believe digital and future-ready foundations can:
- help empower student personalized learning experiences and preparedness for college and the workforce
- increase teacher productivity and digital workflows
- enhance communications and invaluable collaboration models
- expand data enhanced decision making, and
- provide a robust infrastructure for endless possibilities.

Access

Digital access at school and at home helps us understand how "plugged in" and "connected" our learners are during the school day and beyond. Students without access to technology in school and at home are less likely to engage in 21st century learning skills. Ease of access is a precursor to the desired shifts in student outcomes powered by digital tools and resources. Strategies such as 1:1 and Bring Your Own Device (BYOD) are being adopted across Kentucky to help meet this need.

97.8% of students have internet access, and 98.4% have access to a digital device for school work beyond the school campus

28 Districts with BYOD only, 16%
45 Districts with 1:1 only, 26%
90 Districts with both BYOD and 1:1, 52%
10 Districts without BYOD or 1:1, 6%
135 (78%) districts have a one to one implementation strategy.

100% of Kentucky K-12 public schools and district offices are connected by the most reliable, highest speed and quality fiber internet services in the country.

The amount of KY K-12 internet consumed increased by 52% over the past 36 months while maintaining uptime of 99.99%.

90% of students have a smartphone.

Student to Digital Device Ratio
- .78 to 1
- Down .12
- 780,616 Student Instructional Devices

Over 1 million student and staff computers (1,014,667)

100% of schools provide Wi-Fi access to students. Of these, 99% schools have implemented dense Wi-Fi networks capable of supporting BYOD or 1:1 initiatives.
Greater than 260 kilobytes per second bandwidth per student available through statewide fiber network service

Future Ready Student

Strong online skills, such as confidence using shared digital workspaces, have been correlated with increased collaboration in the classroom.
Students can think about concepts and interactions in more varied ways with the affordances of multimedia and multimodal representations.
Students who have access to computers and the Internet are more likely to use technology more frequently and have better technology skills.

MULTIMEDIA SKILLS

Student -reported ease of editing a photo
70% find these tasks easy to perform
Only 7% said the task was impossible

Student-reported frequency of uploading photos from a digital device
71% at least once monthly
Only 15% reported never performing this task

Student-reported frequency of downloading or streaming music, podcasts or other audio
80% at least once monthly
Only 13% reported never doing so

FOUNDATIONAL SKILLS

Student-reported ease of connecting devices via bluetooth or wi-fi
97% find these tasks easy to perform
Only 2% said the task was impossible

86% of KY parents believe their child's school encourages technology use for teaching and learning. 80% of KY parents believe technology use in class can enhance student learning

82% of districts offer at least one computer science course

These skills are a precursor to the use of digital creativity,digital collaboration,digital communication and critical thinking while learning. Students can also personalize the use of their technology and leverage greater access to engage in anytime, anywhere learning on topics of their choice.

COLLABORATION AND ONLINE SKILLS

Student-reported ease of collaborating using online documents.
81% find these tasks easy to perform
4% said the task was impossible

Student-reported frequency of reading online content
72% at least once a week.
10% said never

Student Technology Leadership Program

Greater than 60,000 students from 766 schools in 135 districts.

66% Program integrated into content.
34% after school program club only.

Percentage of schools with STLP by Region
Region 1 50%
Region 2 69%
Region 3 59%
Region 4 54%
Region 5 72%
Region 6 35%
Region 7 47%
Region 8 57%

Future Ready Teacher

PERCEPTION OF DIGITAL SKILLS

Ability to manipulate photos and record and edit audio or video
66% find these tasks easy to perform
37% expressed interest in Professional Development (PD) in this area

ONLINE SKILLS

Teacher reported ease of collaborating using online documents
83% find these tasks easy to perform
36% expressed interest in PD in this area

FOUNDATIONAL SKILLS

Basic computing skills• sending email and creating spreadsheets
73% find these tasks easy to perform
14% expressed interest in PD in this area

Nearly 4 of 5 (76%) teachers report having sufficient access to instructional technology.
Just over 4 in 5 (82%) have access to a part or full-time digital learning coach.
92% of these are encouraged to use technology for teaching and learning by school leaders.

88% of teachers report the internet speed at school as average or better.

KY is cited as a top 3 state in teachers accessing and using quality data to raise achievement for all students (Data Quality Campaign).
87% of KY teachers believe technology use in class can enhance student learning.

1,058 Library Media Specialists employed at the district or school level.
57% report intentional collaboration and support of digital strategies for teaching and learning.

Teachers with strong foundational skills are able to handle administrative classroom tasks easily, including attendance and grading. Further, teachers who are confident in their ability to use foundational skills are often able to use these skills when learning new online and multimedia skills.

CONFIDENCE WITH TECHNOLOGY

77% can solve their own technology problems.
69% easily find new technologies to meet their teaching goals.

Most requested education technology PD topics

37% multimedia skills
36% classroom management with technology
37% online tools for critical thinking

Tech Trends

ONLINE & VIRTUAL LEARNING

94% of districts report students taking online or virtual courses.
38 districts offer online/virtual courses to students in other districts

LEARNING MANAGEMENT SYSTEM

95% of districts sponsor a learning management system (LMS).
The majority of adoption is with free cloud services. However, there is an upward trend toward paid solutions.

SCHOOL DIGITAL DEVICE FOOTPRINT

Chrome 64%
Windows 23%
iOS 9%
Mac OS 3%
Android 1%

Over 1 million student and staff computers (1,014,667)

96% of districts report having a strategic plan for teaching digital citizenship skills.

94% of districts are using Google for Education. Of these, greater than 80% integrated with Office 365 & Active Directory.

Billions upon Billions of unauthorized connection attempts against school networks are blocked annually by statewide security services.

269 large-scale,organized network attacks aimed at denying internet access to all Kentucky schools and districts were successfully mitigated.

K-12 Online Assessment

In 2020, more than 390,000 3rd through 8th and 10th through 11th grade students in 100% of Kentucky school districts successfully participated in high-stakes statewide testing, accounting for more than 771,000 testing sessions - resulting in the largest and most successful online assessment efforts of its kind.

Sources

Kentucky Digital Readiness Report
Kentucky School Report Card
BrightBytes
Digital Driver's License
Google Analytics
Open House
Project Tomorrow Speak Up