Kentucky Department of Education

Office of Education Technology - September 2018

Kentucky's digital-and future-ready students and teachers

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 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.

1.1 to 1
↓.3

525,687
Student Instructional Devices

100% of schools provide Wi-Fi access to students

Of these, 95% (+13%) schools have implemented dense Wi-Fi networks capable of supporting BYOD or 1:1 initiatives

100 | 210 kbps
(minimum) (average)
Bandwidth per student available through statewide fiber network service

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.

Kentucky's Educational Network (KEN) - school fiber Internet total usage increased

+140%

in the past 24 months. While maintaining uptime of

99.9688%

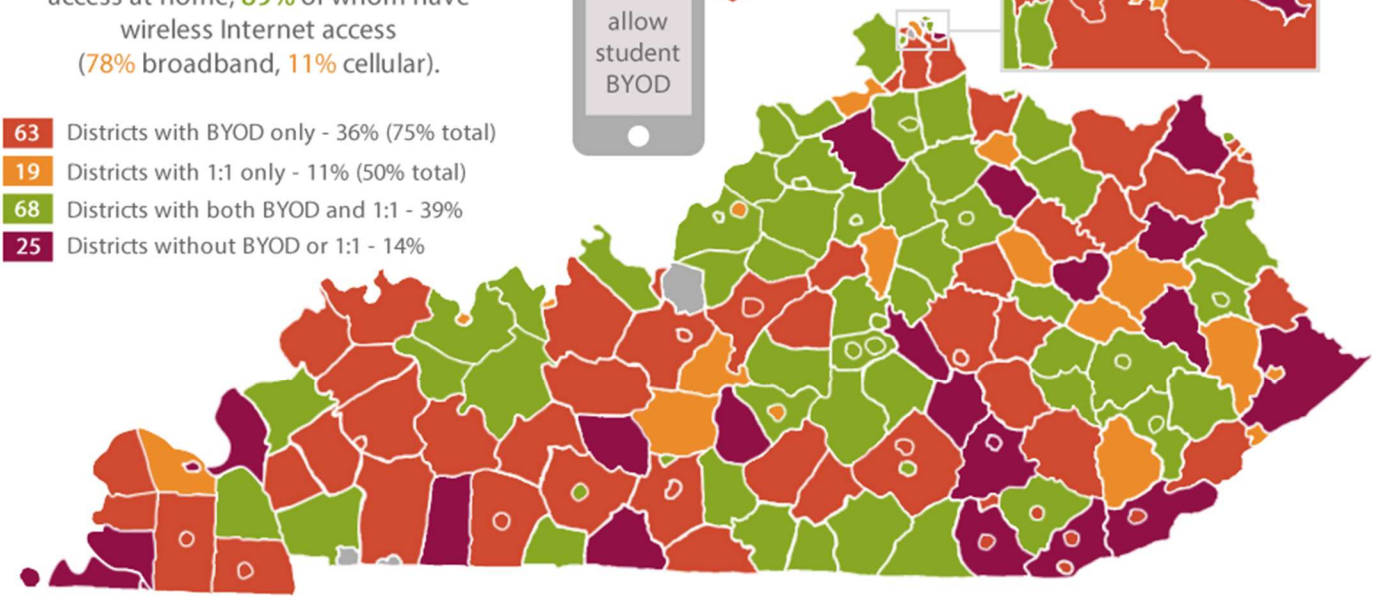
74% ↑4% of students have a smartphone. 11% of which are shared.

83% - 90% of students have Internet access at home; 89% of whom have wireless Internet access (78% broadband, 11% cellular).

75% of districts allow student BYOD

1%

- 63 Districts with BYOD only - 36% (75% total)
- 19 Districts with 1:1 only - 11% (50% total)
- 68 Districts with both BYOD and 1:1 - 39%
- 25 Districts without BYOD or 1:1 - 14%



Anytime, Anywhere, Always On, Differentiated Teaching and Learning

Future-Ready Student

82% of KY parents believe their child's school encourages technology use for teaching and learning

87% of KY parents believe technology use in class can enhance student learning

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.

These skills are a precursor to the use of digital creativity, digital collaboration, digital communication and critical thinking in the classroom and 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.

MULTIMEDIA SKILLS

Student reported ease of editing a photo

67% find these tasks easy to perform

Only **9%** reported never doing so

Student-reported ease of recording and editing video

84% ↑14% find these tasks easy to perform

Only **10%** said the task was impossible

Student-reported frequency of playing a game on a computer or phone

92% at least once monthly

Only **4%** reported never doing so

FOUNDATIONAL SKILLS

Student-reported ease of sending an email

80% find these tasks easy to perform

Only **5%** said the task was impossible (+1%)

45% ↓2% of students are allowed to use personal mobile devices in class for academic reasons

COLLABORATION & ONLINE SKILLS

Student-reported ease of collaborating using online documents

73% find these tasks easy to perform

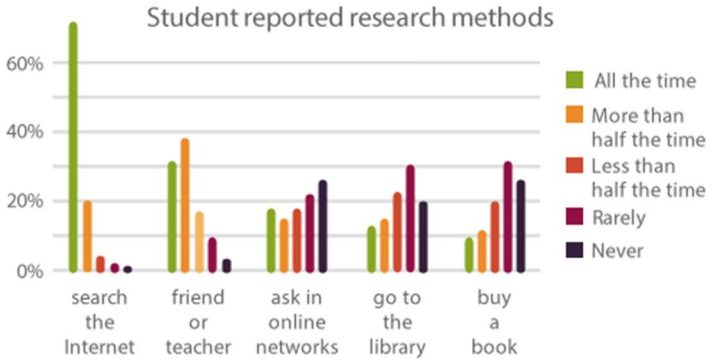
7% said the task was impossible

Student-reported frequency of reading online content

68% at least once a week

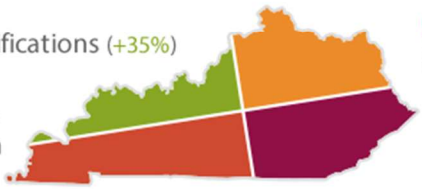
15% said never

Student reported research methods



15,615 Certifications (+35%)

91% High School & ATC Participation



59% Certification Pass Rate

29% Greater than National Average

< KY IMAGINE ACADEMY />

student responses: > 60,000 | teacher responses: > 7,000

21st-Century Teacher

KY is cited as a top 3 state in teachers accessing and using quality data to raise achievement for all students (Data Quality Campaign)

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.

MULTIMEDIA SKILLS

Ability to manipulate photos and record and edit audio or video

44% ↑1% find these tasks easy to perform

40% expressed interest in Professional Development (PD) in this area (-8%)

ONLINE SKILLS

Essential skills for contributing to and collaborating on the Internet

67% ↑1% can use these skills

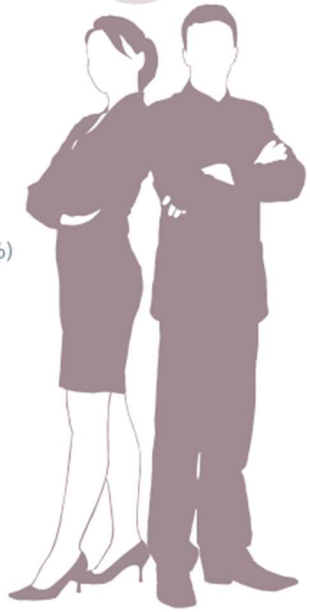
45% expressed interest in PD in this area (+30%)

FOUNDATIONAL SKILLS

Basic computing skills - sending email and creating spreadsheets

69% ↑2% find these tasks easy to perform

15% expressed interest in PD in this area (-1%)



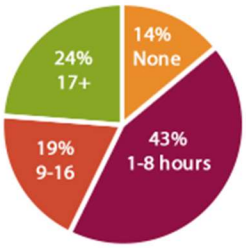
90% ↑1% of KY teachers believe technology enhances learning and their daily lives

CONFIDENCE WITH TECHNOLOGY

74% can solve their own tech problems

75% easily learn new technologies

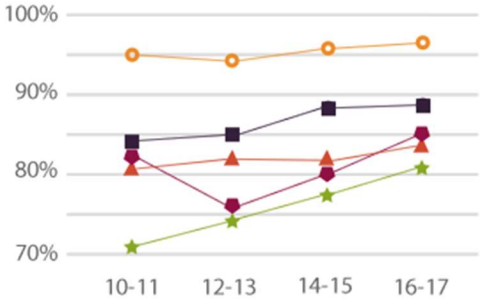
Teacher-reported hours spent per year participating in school-sponsored technology related PD



78% of these teachers say the quality is average or above average

Kentucky Teaching, Empowering, Leading and Learning (TELL) Survey Results

Positive Responses



4 of 5 teachers report having sufficient access to instructional technology...

yet less than 2 in 5 have access to an integration specialist or learning coach.

90% of these are encouraged to use technology and learning by school leaders

Most requested education technology PD topics

40% ↓1% Multimedia Skills

54% ↑9% Online/Digital Collaboration

38% Online Tools for Critical Thinking

Tech Trends

ONLINE & VIRTUAL LEARNING

90% of districts report students taking online or virtual courses

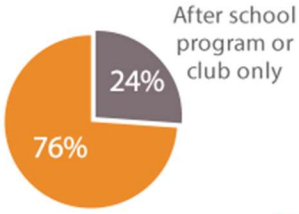
Students grade 6-12 taking at least one online course are up **29%**. Of these, **45%** are girls, **55%** boys.

LEARNING MANAGEMENT SYSTEM

79% ↑8% of districts sponsor a learning management system (LMS)

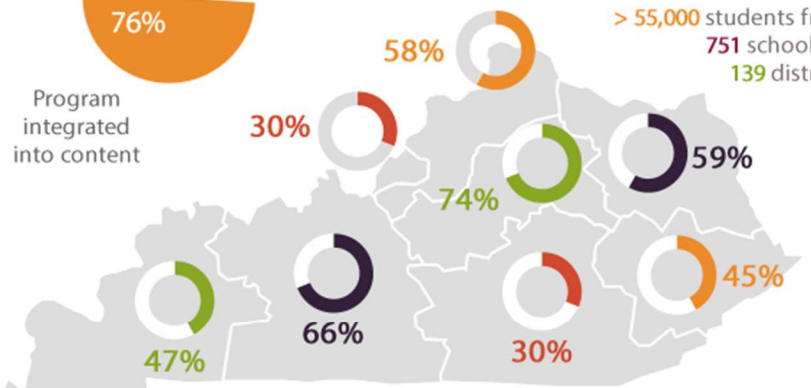
The majority of adoption is with free cloud services. However, there is a upward trend toward paying for a solution.

- **48%** ↓8% WINDOWS
- **29%** ↑13% CHROME
- **15%** ↓3% IOS
- **6%** ↓2% MAC
- **2%** ANDROID



STLP
Student Technology Leadership Program

> 55,000 students from 751 schools in 139 districts



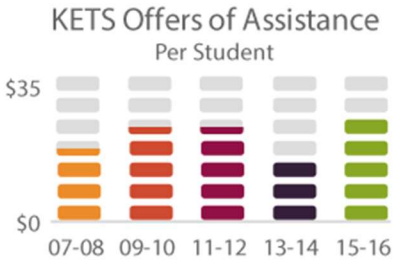
Percentage of schools with STLP by region

94% of districts are using Google Apps for Education. Of these, **79%** have integrated with Office 365 & Active Directory

SECURITY

More than **2 Billion** unauthorized connection attempts against school networks were blocked by statewide security services since the start of the school year.

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



90% of districts report having a strategic plan for teaching Digital Citizenship Skills

*For our 2017 infographic, we've presented subscript indicators for year-over-year changes to data where applicable. **GREEN** indicates favorable changes, **RED** unfavorable, and **GRAY** neutral.

2018
September

Sources

Kentucky Digital Readiness Report: http://applications.education.ky.gov/trs_reports/
TELL Kentucky: http://www.tellkentucky.org/results/25
BrightBytes: http://brightbytes.net
Digital Driver's License (DDL): http://iDriveDigital.com
Google Analytics
Open House: http://openhouse.education.ky.gov

Kentucky UNBRIDLED SPIRIT