

digital learning

KANSAS STATE
DEPARTMENT OF
EDUCATION

2013



Introduction

In conjunction with the second National Digital Learning Day on February 6, 2013, the Kansas State Department of Education is pleased to release this report highlighting frequently asked questions related to digital learning environments across the state. The technology landscape is evolving at an ever increasing rate. District's broadband needs are increasing, at a time complicated by the decommissioning of Kan-ed. We are at the advent of expanding growth in the use of digital and open textbooks to support Common Core standards, while challenged to meet increasing demands for access to mobile and cloud-based

technologies. These are a few of the forces impacting technology planning needs for districts across the state. It is our hope this report will provide some insight and perspective for the field as the work to advance the effective use of technology within Kansas education continues.

Information in this report was collected from Kansas school districts in January 2013 to provide a snapshot of the educational technology landscape in our state. The data in this report is also intended to provide a catalyst for conversation, sharing, and collaboration around 'who's doing what' across the

state. This report represents 212 of the 286 districts in Kansas, or 74%.

To support conversation, resource sharing and collaboration on these and related topics, please join us on the Kansas Technology Coordinators group on the Kansas TRC Ning at www.kansastrc.org. Join us on the Kansas TRC Ning, and then join the Kansas Technology Coordinator Group to participate in this community. <http://www.kansastrc.org/group/kansas-technology-coordinators>



Technology Fees



In order to help offset the costs of digital equipment and supplies 68 public school districts report charging a technology fee. These fees are similar to text book fees. Four districts plan to implement a technology fee for the 2013-14 school year, and another 32 districts are considering charging a technology fee.

In The Cloud...

Cloud-based e-mail and/or productivity solutions have continued to grow in popularity for Kansas schools. This trend of providing access to software and storage through a centralized server is driven by low or no-cost products as well as lower support costs for staff to maintain and manage these solutions. Cloud-based solutions also provide 'anytime anywhere' access. 140 Districts are currently using a cloud-based solution.

This was a multi-response question, so districts could choose multiple answers regarding the cloud-based services in use.

Of the 212 districts responding:

- 53% are using Google Apps
- 5% are using Microsoft 365 and an additional 8% are using the following:
- Dropbox
- eBackpack
- Edmodo
- iCloud
- My Big Campus
- Rackspace Email
- SchoolLoop
- Skyward

Student E-mail Accounts

In order to provide safe and secure communication and collaboration opportunities, 128 districts provide students with e-mail accounts. Top providers used for this service are:

- Google (61%)
- Microsoft Exchange/Outlook (8%)
- Two Trees WebMail (7%)
- Gaggle (6%)
- Novell Groupwise (4%)
- ePals (2%)

In addition to the providers mentioned, CrawKan, First Class, Icewarp, Live@edu, Merak and a variety of in-house solutions are used.

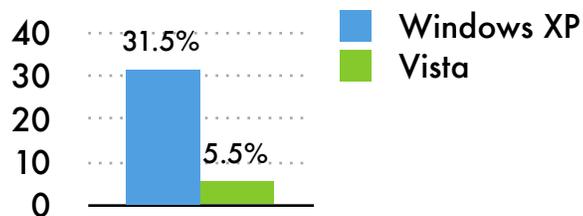


Student:Computer Ratio

Access to the equipment needed for digital learning environments can present a financial challenge to districts. Computers and devices that are more than four years old may not be adequate to provide secure internet access and robust production capabilities. With the declining cost of device acquisition and the multitude of options, we have seen an increase in acquisition over the past year. While we provide a deeper dive on 1:1 initiatives later on in this report, it is important to take note of the state average in terms of access to technology from an equity perspective. The state is reporting an average of 2.35 students for every digital learning device available to students during school hours. Some districts reported as many as 20+ students for every one digital learning device that is four or less years old.

2014 Assessment Readiness

In working on Assessment Readiness for 2014, there has been much discussion around supporting older Windows Operating Systems for student computers. To help us gain a statewide perspective on this, districts responding identified the % of student computer install base mentioned in the number above that use Windows XP or Vista. The following chart shows the State Average:



Although we have simply addressed this one particular Windows-related 'readiness' issue, as we implement the new Common Core Standards and prepare for new online Assessments for 2014-15 School Year, we must also take note of instructional needs. U.S. Secretary of Education Arne Duncan has noted, "The use of smarter technology in assessments will especially alter instruction in ways that teachers welcome." In making plans with respect to minimum and recommended technology specifications being released by PARCC and Smarter Balanced Assessment Consortia, school leaders must consider this information in the context of the full range of technology issues schools are addressing today. "Policymakers and education leaders must undertake a proactive systems approach to addressing school technology needs for the long-term," said Douglas Levin, Executive Director of the State Education Technology Director's Association (SETDA). "To meet present and future technology needs, any realistic approach must consider curricular, instructional, assessment, professional development and school operations goals." For additional information, please see the recently published guidance from SETDA for policymakers and K-12 districts "Technology Readiness for College and Career Ready Teaching, Learning and Assessment at <http://setda.org/web/guest/assessment>.

Policies

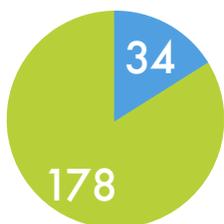
District policies guide the implementation of digital learning environments. These policies are developed at the district level, through the study of best practices and the identification of what works within the education community each district serves. Many technology implementations are on the horizon or being piloted within schools. The existence of formal district or school policy addressing many of these new technologies is limited and is reflected in the following information regarding district policies in Kansas.

Some districts have volunteered to share their policies as examples for other districts. These examples can be found at: <http://www.kansastrc.org/group/kansas-technology-coordinators>

Bring Your Own Device (BYOD):

Bring Your Own Device (BYOD): This refers to students bringing into the school their own mobile devices; such as laptops, tablet computers or smartphones for use to support learning. This question was refined to ensure those responding favorably have a policy formally allowing a BYOD. Having a policy to guide a BYOD implementation helps the technology department better secure these devices and the wireless network needed to support them, as well as ensures network security.

Districts with a formal BYOD policy:

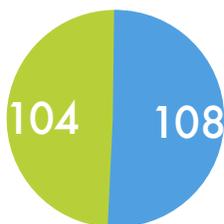


● Have a policy ● Do not have a policy

Mobile Phones:

Mobile Phones: Safety and security often is the driving force for allowing students to use their mobile phones at school. In addition, mobile phones can be used for accessing educational content, participating in class discussions through “clicker” applications, or sharing classroom activities.

Districts with a student-allowed mobile phone policy:

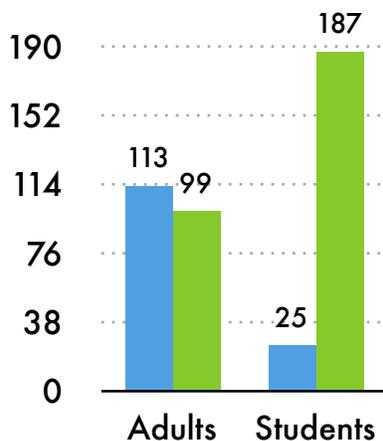


● Have a policy ● Do not have a policy

Social Media:

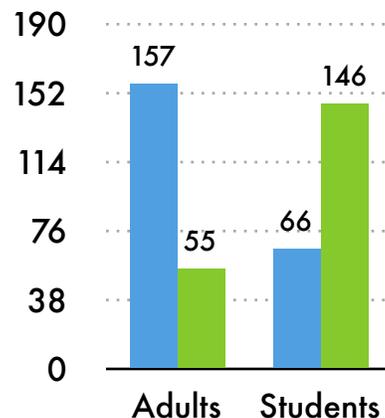
Social Media: Appropriate use of social media can be a great resource for increasing parent communication and community involvement. For example, districts and schools with Facebook pages use this form of media to promote activities and student accomplishments. YouTube channels are used to promote student projects for a real audience. Access to iTunes/iTunes U provides opportunities to extend learning with new content or reinforce prior knowledge.

Districts with a policy to allow access to Facebook:



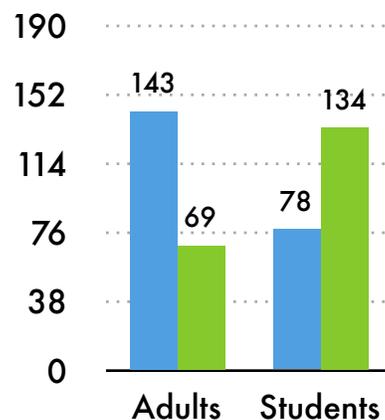
■ Have a policy to allow access
■ Do not have a policy to allow access

Districts with a policy to allow access to YouTube:



■ Have a policy to allow access
■ Do not have a policy to allow access

Districts with a policy to allow access to iTunes/iTunes U:



■ Have a policy to allow access
■ Do not have a policy to allow access

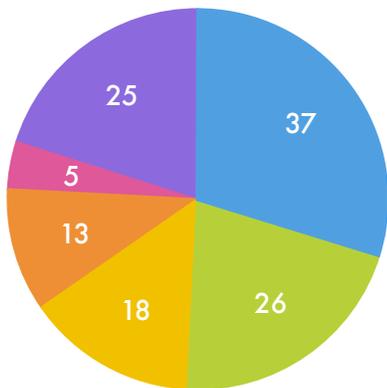




1:1 Device per Student Initiatives

Out of the 212 districts responding, 79 are currently implementing a 1:1 initiative (37%). This is an increase from 2012, when 65 of the 244 respondents indicated a 1:1 initiative (27%). Among those, 77 districts assign the devices to students in the school setting. Once again, districts cited device cost/replacement as the biggest barrier to a 1:1 implementation. In addition, 68 districts allow the students to take the device home, allowing for a truly digital learning environment 24/7. This home use is limited to high school students in 25 districts and high school and middle school students in nine districts.

1:1 Initiatives by Device



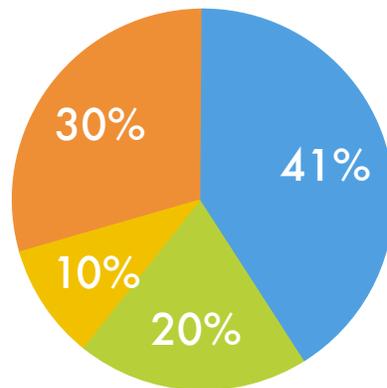
● iPad 2 ● Laptop-Mac
● Laptop-Windows ● iPad-3rd Gen
● Mini/Netbook ● Other

Seventeen additional Districts are considering a 1:1 for the 2013-14 school year!



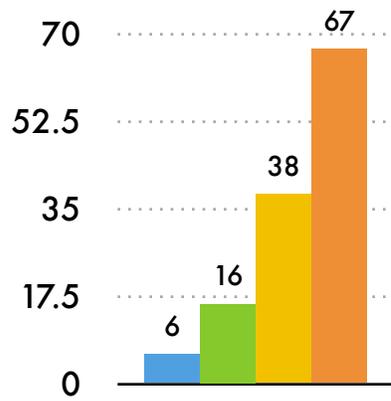
Mobile Management Software Tools

Managing mobile devices has been a hot topic of conversation of late. The following provides information relative to mobile management software being used in the state:



● JAMF/Casper ● Apple Configurator
● Meraki ● Other

1:1 Initiatives by Grade Levels



■ K-2 ■ 3-5 ■ 6-8 ■ 9-12

Barriers

Districts not implementing 1:1 initiatives cite the following reasons:

Cost of student devices/replacing student devices (80)

Lack of available Broadband Service (2)

Cost of infrastructure equipment/improvements (8)

Cost of software and/or subscription services (1)

Staff capacity for providing Teacher Professional Learning (2)

Staff capacity for providing Technical Support (6)

Other (17)

Deployment Phases:

4 Districts indicate that they are in the Mature Implementation Phase, 4+ years of a 1:1 initiative.

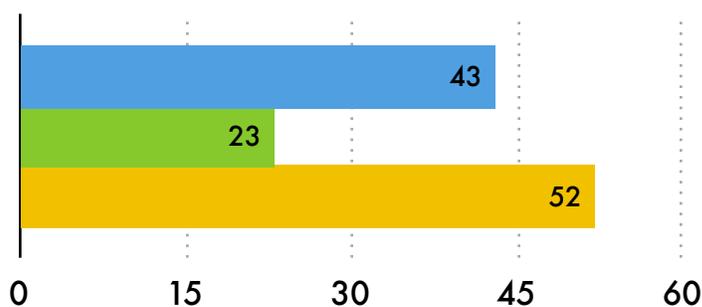
11 Districts are in the Early Implementation Phase, 2-3 years of a 1:1 initiative.

27 Districts are in the Initial Implementation Phase - the 1st year of a 1:1 initiative.

8 Districts are in the Pilot Year of a 1:1 initiative.

Digital Textbooks & Open Education Resources

Shifts from print-centric to high quality, interactive, digital textbooks are beginning. Common Core standards, technological advancements, and innovations in intellectual property rights have prompted a sea of change in the multi-billion dollar U.S. K-12 instructional materials market. This is translating into significant shifts in development of digital and open content (often referred to as 'OER—Open Education Resources'). These newly evolving digital resources are significantly more interactive, more video-based, more widely available, but will also require more bandwidth/internet resource than a static text resource. Additionally, a number of states, districts, schools, teachers, students will be publishing instructional resources.



- Districts Purchasing Digital Textbooks
- Districts Adopting/Aligning Open Digital Education Resources
- Districts Creating Digital Curriculum Materials

For additional information on this topic, please see Out of Print: Reimagining the K-12 Textbook in a Digital Age (<http://setda.org/web/guest/outofprintreport>), published by the State Education Technology Director's Association (SETDA) which outlines some recommendations for states, districts, and schools.

Professional Learning

The research provided throughout the ten-year span of the Kansas Technology Rich Classroom Program provided clear evidence that in order for significant shifts in teaching and learning to occur, on-going, in-class support, professional learning opportunities and peer-collaboration are essential elements to the success of an effective classroom-level technology implementation. While the state budget challenges have resulted in eliminating funds for professional learning, as well as funding for positions, 1:1 implementations and mobile device acquisitions are increasing. The data respondents indicated that 139 Districts have a formal plan for Professional Development for teachers as part of technology initiatives.

In addition, they indicated the following staff members as being responsible for Technology Professional Development for Teachers:

- Curriculum Coordinators (72)
- Technology Directors (83)
- Principals (75)
- Other (68)

Internet Filtering Solutions

The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress to address concerns about access to offensive content on the internet utilizing school and library computers. Districts must certify compliance with CIPA for E-rate and other Federal programs. Any protection measures must block or filter internet access to materials that are: (a) obscene; (b) pornography; or (c) harmful to minors (for computers that are accessed by minors).

The following list shows the top filtering solutions being used in Kansas schools:

- Lightspeed (54)
- SonicWall (48)
- Two Trees (30)
- CIPA (12)
- Watchguard (7)
- 8e6 (6)
- Barracuda (5)

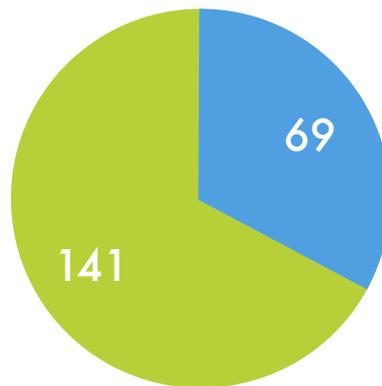
CIPA does allow for teachers to have different internet access rights than students. Whether conducting research, planning a unit of instruction, exploring new technology tools, or communicating effectively with parents, there is a pressing need for educators to have access to social media, instructional resources, interactive-rich media and communication channels to support teaching and learning. This includes access that may normally be restricted for student use. Throughout the state, 70% of districts grant teachers different Internet rights than students.



Access to Broadband

With the decommissioning of the Kan-Ed network, concerns for districts being underserved have risen. This section intends to bring to light changes in district broadband needs, challenges and limitations that may not be easily identified in other ways. 53 Districts indicated that their Service Providers limited the amount of Bandwidth provided to the District.

Districts indicating Challenges to Secure Efficient, Affordable Internet Access



● Challenge ● Not a Challenge

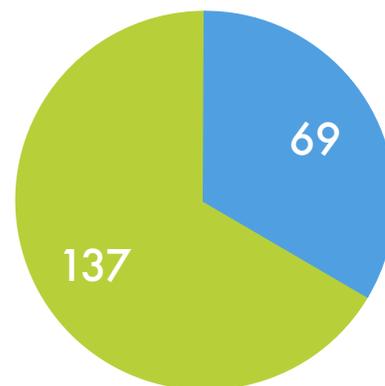
Broadband: How much is enough?

SETDA's [Broadband Imperative](#) report provides some perspective on that question!

Disaster Recovery

Disaster planning and recovery has been a hot topic among technology coordinators—especially those in areas recently affected by tornadoes, flooding, and other significant weather and unfortunate events. Addressing business recovery and continuity is an aspect of planning that many times goes unfunded and under-prioritized—until it is too late.

District Formal Disaster Recovery Plan



● Have a Plan ● Do not have a Plan

38 Districts reported using a virtualization solution. Those in use include:

- Cloud-based Solutions
- Hyper V
- Veeam
- VMWare

Follow Up:

For follow-up discussions, shared policies or to see additional information on 1:1, join the Kansas Technology Coordinators group at: www.kansastrc.org/group/kansas-technology-coordinators



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