Learning in the Digital World

Diana F. Rigby, Superintendent
John Flaherty, Deputy Superintendent
Gene Warfel, IT Director
July 24, 2014
“We need to rethink our strategy of hoping the Internet will just go away.”
DESE Goals

- **Strengthening** curriculum, instruction, & assessment
- **Improving** educator effectiveness
- **Turning around** the lowest performing districts & schools
- **Using technology and data** to support teaching & learning
Learning Goals

• Increase student achievement and prepare students for college and career readiness
• Develop collaboration, communication, critical thinking, creativity, and citizenship in a global society
• Inspire students to apply their understanding of content to solve today’s challenges
• “To be effective in the 21st century, citizens and workers must be able to exhibit a range of functional and critical thinking skills such as information literacy, media literacy, and technology literacy.” (Partnership for 21st Century Skills)
Learning Environment

• Personalized learning environment with access to range of devices, content, and audiences
• Variety of digital tools and software are selected to construct, share, and publish knowledge to a worldwide audience
• Communication and collaboration with peers and beyond classroom
• Technological skills and information literacy are deeply integrated across all subject areas
Elementary Schools

• 2 students: 1 device
• Laptops, iPads, Digital cameras, ActivBoards, Desktops, Computer Lab
• ActivBoards – daily classroom use for interactive teaching and learning; Skype
• iPads – literacy and math activities, creation of videos, music, tutorials, eBooks
• Online writing – Google Drive, Little Bird Tales, WordPress, Kidblog
Elementary Schools

- Multimedia projects, podcasts, blogs, wikis- Storybird, Kidpix, Photoshop, Garage Band, iMovie, PrintMusic, Music Ace, Keynote, SAM Animation, RAZ Kids
- Social Studies/Science - Brainpop, Discovery Education, STEAM projects
- Online reading and math tools- Fast Math, Dreambox, iReady, Lexia, Track My Progress, Study Island
- Digital citizenship activities
CMS

• 1:1 MacBook Air, ActiveBoards, Desktops, iPads, Digital Microscopes and cameras, Telepresence Robot, Computer lab
• Seamless integration of learning, collaboration, creation and publishing
• Increased access to up-to-date resources
• Immediate teacher feedback to students
• *Google Apps for Education* – all teachers and students
• *Google Calendar* - homework
• *Google Drive* – Online writing and writing portfolios
CMS

- **Moodle** – Blended online learning, homework, quizzes, Science forums, math reviews
- **Noodle Tools** for research
- **First Class** – Email communication, staff/student collaboration platform
- Art - Digital cameras and online portfolios
- English – **VoiceThread**, **Google Drive**, **iMovie**, **Online Writing Portfolios**, **PollEverywhere**
- Math – Online textbooks, **Socrative student response**, **Edmodo**
CMS

• Social Studies – *Noodle tools* and research databases, *Google Docs, Voice Thread, Google Maps, Moodle, Socrative, PollEverywhere, Online textbooks*

• Science – *Moodle, Google Docs, iMovie, Digital Microscopes*

• World Language – *Skype, Voicethread, Google Sketchup, Google Maps, iMovie, Quicktime, Lingtlanguage, Quizlet, Animoto, Voki, Infuse Learning, Brain Shark, online textbook*
CMS

- Applied Tech – *West Point Bridge, CAD, iMovie*
- Health – Fitnessgram software
- Music – *Google Docs, Moodle, SmartMusic*
- Computer literacy, applied technology, and multimedia courses
CCHS

• 1:1 MacBook Airs in Fall 2015, Laptop and iPad carts, Desktops, Epson Brightlink, ActiVote devices, Computer Labs, Multimedia lab, Digital Imaging lab, Language lab, 3D Printer, ebooks, digital cameras, iPod touch, digital microscopes and probes, audiobooks, Green Screen for CC Weather Services, Digital Recording Studio, Radio station, CCTV, Media Wall

• Google Apps for Education – Google Docs, Google sites, Google presentations, Google calendar, Blogger

• First Class – Email communication, staff/student collaboration platform
CCHS

- *Noodle tools* and databases for research
- *Moodle* for online blended learning
- Virtual High School – Online courses
- Online textbooks
- *iPad Apps* – Advanced Earth Science and Environmental Field Studies work, Resource Center skills practice, Special Education classes, Multi-media projects
CCHS

- Turnitin – online writing and checking for plagiarism
- Sanako, VoiceThread – World Languages
- SolidWorks - Engineering and Robotics
- Java, Eclipse, Bluejay, Processing – Java programming
- Motic Images, Chemthink, Logger Pro – Biology, Chemistry, Forensic Science, Physics
- TI Smartview, Graphing Calculator – Math
- Goodreads - English
- Adobe CS5 Suite, Magna Studio4, Cinema 4D, Mazaika, Sculptris Alpha 6 - Digital Art
- Final Cut Pro – Videography courses
- Logic Pro, Protools, Reason, Sibelus, and Finale – Recording Studio
- Information literacy, computer programming, and digital citizenship classes
Professional Development

• Technology Specialists at each school site provide ongoing, sustained teacher training and coaching in technology integration and tech skills
• Teacher leaders at CMS and CCHS coach colleagues in technology integration
• EdTech Teacher trains teacher leaders in technology integration during full year course
• K12 teachers participate in summer institutes to increase tech skills
Administrative Technology

- *Infinite Vision* – Business office, HR, Employee Web Portal
- *Aesop* – Employee attendance, Substitutes
- *Applitrak* – HR Hiring
- *Aspen X2* – Student Information System, Scheduling, Grading, IEPS for Sped, Parent Portals
- *Mylearningplan* – Professional Development, CCHS Educator Evaluation System
- *Baseline Edge* – CPS Educator Evaluation System and Student Assessment data
Administrative Technology

- *Atlas Curriculum Maps* - K12 Curriculum
- *First Class* – Email
- *Connect ED* – Parent and School community notification system
- District, school, and teacher webpages
- Social media - Twitter, Blogs, Facebook
IT Staffing

- Information Technology Director
- Assistant Director
- Network Manager
- Applications Specialist
- Lead Support Analyst
- Senior Support Analyst (4 positions, 1 vacant)
- Junior Support Analyst
## CPS K-5

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<thead>
<tr>
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Teachers 154
# CPS CMS

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Network Information
Hardware

• Total devices on network about 4000
• Total Wireless Access Points 90
• Total Managed Network Switches 47
Network Management and Monitoring Software

- Intermapper Global Network Monitoring
- Xirrus Wireless XMS Management Suite
- HP Switches Procurve Manager Plus
- Fluke Diagnostics Optiview XG Remote Network Analyzer
Internet Connectivity

• 1 GBs fiber connection through Town of Concord DSCI connection
• 100 mbs backup connection through Cogent
# Financial Information

## CPS

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<tr>
<th></th>
<th>FY10</th>
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<td>5.4%</td>
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Financial Information

CPS Total Budget
Instructional Tech $
Administrative Tech $

FY10  FY11  FY12  FY13  FY14  FY15

- 35,000,000
- 30,000,000
- 25,000,000
- 20,000,000
- 15,000,000
- 10,000,000
- 5,000,000
- 0
# Financial Information

## CCRSD

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<td>675,781</td>
<td>753,503</td>
<td>928,539</td>
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## CCRSD Total Operating Budget

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<td><strong>Administrative Tech as % of Operating Budget</strong></td>
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## Total Technology as % of Total Budget

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<td>5.4%</td>
<td>4.0%</td>
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Financial Information

![Graph showing financial information with FY10 to FY15 on the x-axis and budget amounts on the y-axis. The graph includes lines for CCRSD Total Operating Budget, Instructional Tech $, and Administrative Tech $.]
Summary Comments

- Students/Teachers are using a variety of digital tools for learning
- Digital citizenship skills need to be developed in early grades
- Job-embedded professional development and technical support for teachers are necessary
- Administrative technology creates efficiencies