



## **Hamilton County Department of Education** Technology Implementation Plan 2013-16

The Hamilton County Department of Education is committed to the personal and intellectual success of all students.

**3/3/2014**

## **Mission**

The mission of the Hamilton County Department of Education (HCDE) Technology Plan is to provide a three-year actionable framework for planning, implementing and supporting technology efforts throughout all schools and departments of HCDE. Moreover, every technology initiative or program undertaken by HCDE endeavors to benefit students, parents, teachers and/or administrators through enhanced curricular applications of technology, increased access to devices and networks, expanded professional learning opportunities, and improved reliability of services and support.

A viable Technology Plan can only succeed through effective, coordinated, and purposeful collaboration among administrative, curricular and technical departments. Successful planning and implementation of any technology-related endeavor can only take place if all three of these departments share information, seek feedback and work in conjunction with each other.

The Technology Plan has taken into account the current district strategic plan. The four strategic goals are:

- Accountability Systems: Increased student achievement and reduced achievement gaps
- Principal Leadership: Effective Leaders in all schools
- Focused Academic Support: Provide differentiated support to enhance literacy across all subject areas
- Technology Fluency: All students and staff will have the ability to access, use and apply knowledge through technology

## **Vision**

Our community is dedicated to providing a world-class education. We will foster the development of students who are creative thinkers, life-long learners, and productive citizens.

## **Goal 1: Targeted Professional Development**

*Provide teacher support and training on technology integration*

### Current Status:

HCDE tends to implement technology training as an afterthought to equipment acquisition, as opposed to making it an integral part of the technology planning process itself. The district currently has no department to officially oversee technology professional development, and it has very few personnel to provide technology training of any kind. Because of this, technology training provided by the district is limited in the number of people reached and in the depth of instruction. A few schools have successfully implemented some degree of in-house technology training, and many school-based personnel are actively engaged in their own technology professional learning, but this is not the case throughout the district. The fact is, HCDE faculty and staff are not currently provided with a comprehensive, holistic approach to technology training, professional learning and technology curriculum integration.

### Projected Status:

It is a mantra that all students must develop technology skills to prepare them for college and the world of work, but our charge is much more critical than that. Technology is now so integral to everyone's daily lives that lines between what is and what is not technology are functionally blurred. A cell phone is a web portal, an advisor, a flashlight, a social network, an augmented reality, a teacher and a comfort. Teachers have historically been a student's primary access to information, but when access to information becomes unlimited, the role of the teacher must change from the rote didactic to the supportive dialectic. Teachers must be able to facilitate more than instruct, navigate more than lead, and they must be able to do so in a world surrounded by and fully immersed in technology.

*Professional learning should begin at the district level.* Providing a technology-infused curriculum to Hamilton County students first requires providing technology-infused learning for teachers. To facilitate this, HCDE should develop a comprehensive technology-training program that involves collaboration between curriculum and technology specialists and presents learning through a variety of media. This program should have oversight at the district level yet fully involve school-based experts to provide program development, implementation, and evaluation.

*Professional learning should be measurable.* All HCDE personnel should be required to participate in twelve hours of technology professional learning every year. This professional learning can come in the form of face-to-face or online learning, the accounting of which will be largely automated through a combination of the IFAS Professional Development Module and the evaluations and assessments available through the intranet side of the district website.

*Professional learning should be modeled and personalized.* Training alone is insufficient for providing true technology integration into the classroom. To affect lasting change, teachers should have regular access to in-house experts for collaborative teaching and modeling. HCDE should reinstate the technology facilitator positions throughout the district, assigning one facilitator to every three schools. These facilitators will work with each of their appointed teachers to help personalize technology integration and model how that integration should look. Moreover, technology facilitators should be an integral part of technology planning and implementation for their assigned schools, working closely with school administrators and other curriculum experts to research technology solutions, align goals and utilize resources. They will meet periodically with district administrators to plan implementation of new technologies and provide feedback on the existing programs.

*Professional learning should be adaptive.* Technology evolves much too rapidly for the district to develop an inflexible set of proscriptions governing its use in the classroom. Struggles to provide BYOD solutions, the proliferation of flipped classrooms, and the emergence of alternative conferencing models create a whole new set of challenges for professional learning that were scarcely imagined just one year ago. Therefore, HCDE should enhance the Acceptable Use Policy that protects students and networks but still allows for inventive and unexpected uses of emerging technology.

*Professional learning should be collaborative.* Technology is an essential teaching element to all subject areas in the core curriculum. Therefore, it is crucial that an environment of constructive collaboration be fostered between subject matter experts and technology experts throughout the district. HCDE should strive to create a semi-formal consortium of technology advocates and early adopters who best use technology to teach their subjects and seek to share that expertise with others. HCDE will provide a variety of internal opportunities to collaborate on technology instruction, including face-to-face, online, and nonconference models.

## **Goal 2: Infrastructure**

*Provide and maintain a high density wireless network at each school location to handle a one to one device initiative, PARCC testing and daily instructional needs of the District.*

### Current Status:

Through its partnership with Education Networks of America (ENA), the district provides and maintains network service to 81 locations. HCDE has a fiber connection to every building and has changed the internet routing from the schools straight to ENA. This has eliminated the extra hop to the District egress to access the internet. ENA and the district network administrator monitors bandwidth usage from the schools and the District egress. HCDE manages the internal network within the school buildings which includes wireless.

HCDE is in the process of upgrading each school's wireless infrastructure to high density and internal switches. The Information Technology Department's date for completion is July 2014. After completion of this upgrade, every school building's network infrastructure will support a mobile device for every student.

The internet filter is administered by ENA to meet CIPA requirements. HCDE utilizes the iSafe curriculum to teach students about internet citizenship. This program is administered by the Special Programs department. Students and employees are expected to adhere to the Acceptable Use Policy to also ensure a safe internet/network environment. The Acceptable Use Policy (AUP) should be reviewed every year due to the ever changing needs of technology.

The Hamilton County Telecommunications department handles the district telephone structure for all buildings. All service calls are directed to them. The older school buildings are utilizing analog lines. The new buildings are utilizing VOIP capability within the school, but converts back to analog for outside connection. Not every classroom has a telephone.

Projected Status:

The district's goal is to increase bandwidth at each school to 300MB by the summer of 2014. The bandwidth increase from 100MB to 300MB allows Internet and data connections to flow quicker and decrease bottlenecks. HCDE is currently utilizing 750MB of the 1GB for the District egress. The egress bandwidth will need to increase immediately from 1GB to 2GB.

In moving forward with bring your own device (BYOD) and a one to one device initiative, HCDE expects to increase bandwidth to 1GB by the 2016-17 school year. Initial plans are to provide Internet access only for BYOD via the wireless network. This setup utilizes a virtual local area network (VLAN), which will route to the district egress instead of straight to ENA. The bandwidth for the district egress will need to utilize 5GB to support a district-wide BYOD.

The Acceptable Use Policy needs to be reviewed every year. Moving forward, the AUP is scheduled for review every April. Changes pending approval by the HCDE Board are to be approved in the annual May board meeting. Schools need ample time to communicate revisions to all parents, students and employees. In view of changes in society and the way people communicate, HCDE will review its policy on social media access to Facebook, Twitter, Instagram, etc.

In anticipation of USAC not supporting analog lines, it is essential that HCDE explore the possibility of changing phones and service to VOIP. This project will be coordinated with the Hamilton County Telecommunication Department. Funding and training is an issue for this project.

### **Goal 3: Equal Device Access to all Students**

*Provide and maintain devices for every student. Implement BYOD in schools where students can provide their own device.*

#### Current Status:

The average school ratio of student to device is 7:1. However, several of these devices such as laptops and desktops are six to eight years old and need replacement. With aged equipment, it is difficult to keep the latest operating system installed, and repairs are not cost effective. The remaining Windows 2000 student machines are being replaced with donated desktops running Windows 7. The end of life for Windows XP is April 2014. The district has several desktops that can't be upgraded to Windows 7 due to the hardware.

School real estate has become an issue. Several labs have been dismantled to provide classroom space. These schools are moving to mobile devices such as laptop and tablet carts bringing technology into the classroom. The district is not restricting schools to one particular device to allow flexibility in teaching. The district also does not provide funding for student devices. Schools obtain funding through Title I eligibility, fundraisers, PTA and community support. Some schools are allowing student devices in the classroom utilizing their 3G/4g coverage. This is not the greatest solution since the internet access is not filtered.

Maintaining current HCDE devices is a challenge. The district currently has around 23,000 devices to support. The Information Technology department has six full-time computer technicians, three part-time computer technicians and two full-time helpdesk personnel. All requests are routed through the IT helpdesk via entering the request, email or phone. The IT department performs sweeps of the schools by district to complete open requests. A majority of the requests are handled remotely by the helpdesk personnel.

#### Projected Status:

The district's goal is a one to one initiative for all students by either providing the device or allowing students to bring their own. In preparation for this initiative, changes to the network structure to allow guest connection will have to occur. The Information Technology department is in the process of researching the best approach to allow student access to the Internet but also protect the internal servers and data. The target date for piloting BYOD is 2014-15 school year.

The ultimate solution is to acquire funding to lease devices for students on a three-year plan. It is important to provide funding at a district level to replace old equipment with latest technology. The process will begin with the first group of 25 schools for the first year and then move to the next two groups over the next two years. This process is manageable with switching out devices every year. HCDE will continue to move toward mobile devices with the plan of replacing equipment on a three-year replacement cycle. A district commitment to refresh student and teacher devices is vital.

In addition, students need instruction on digital citizenship. There is a time and place for an email, text, face-to-face conversions and phone calls. The district needs to develop instruction on how to teach students to use technology wisely without diminishing their social skills and the ability to communicate face-to-face.

To provide ultimate school technology support, the Information Technology department should decentralize support, assigning one computer technician to every five schools for support and maintenance. These technicians are to report to the IT department but are ultimately the direct contact for the schools to which they are assigned. These technicians will serve as the front line contact for the networking team to help troubleshoot and possibly solve the problem onsite. This support system will require additional staff.

#### **Goal 4: PARCC preparation**

*Assist schools with inventory, computer upgrades and technical support during testing times.*

##### Current Status:

The Information Technology department has completed a thorough technology inventory at every school in preparation for PARCC testing. Where computers are viable, the memory has been upgraded to 2GB. The Information Technology department is in the process of upgrading the operating system to Windows 7 (PC) or OS 10.7 (MAC). Bandwidth is being increased to 300MB at every school to speed up data transfer.

##### Projected Status:

By July 1, 2014, the wireless installation is slated for completion. In every school, bandwidth will be increased to 300 MB by the summer of 2014. During testing times, the Information Technology department will station technicians in every district to assist with any issues and plans to provide training for all test proctors for basic troubleshooting. At the completion of the first round of PARCC testing, HCDE will evaluate the process in order to make improvements in administering and supporting the PARCC test.

The district utilizes the Cognos data dashboard for reporting on student performance. This database will need to align to the PARCC testing scores. In addition, the district needs to create, implement and evaluate a performance measurement for PARCC. PARCC test results will be imported into Cognos for easy access by educators. This will allow educators to view current data on any enrolled students.

### **Goal 5: Development of Electronic Media**

*Utilize a variety of media for communication, instruction, and administration*

#### Current Status:

HCDE still relies almost exclusively on the telephone and email for district communication. Almost all instruction is delivered in a real-time, face-to-face format, and administrative information is disseminated either face-to-face or via email or phone.

The district has begun to take advantage of school-safe social media such as Edmodo, with several schools adopting the platform as both an internal and external communication and instruction tool. But use of Edmodo is far from universal in the district. Currently, most schools have few, if any, teachers utilizing the platform in any capacity. Typically, other social media resources are either banned from use inside the district, or are dismissed as being irrelevant to education.

The district network infrastructure is now robust enough to provide real-time distance learning opportunities. While HCDE has attempted to implement several distance learning solutions in the past, few of these have ever been successful, mostly due to a lack of planning, program ownership and professional development.

Through various community partnerships, HCDE is piloting the use of online video for asynchronous training sessions. The district is identifying those training topics most in demand within the district and, in an attempt to leverage the vast capability to be found already within Hamilton County, enlisting in-house experts to lead professional learning sessions. These sessions will be recorded and made available online.

Through SCHOOLinSITES, the district has developed a more robust and complete web presence. The learning management system (LMS) accompanying the SCHOOLinSITES engine allows schools more control over the content of their particular portion of the site while also ensuring that the overall look and feel remains consistent with the district site. The LMS also gives more tools for managing an intranet site, enabling the district to create web forms, partition off parts of the site for particular users, and track usage, among other abilities. While training has been provided to help schools create and manage their sites, not all schools have taken full advantage of the possibilities. More training is going to be necessary.



Projected Status:

HCDE should take better advantage of existing media to communicate, instruct and administer throughout the district, and the district should begin exploring more efficient and cost-effective methods of dissemination and collaboration. While there is certainly value in face-to-face communication, the county geography makes this a very inefficient use of resources, especially when we already possess the technology and infrastructure to make cutting-edge electronic communication possible.

*Social media should be embraced.* The public perception of any organization depends largely on how well that organization maintains its web presence, with the incorporation of social media being essential. The district should cultivate a professional social media presence in order to share successes, organize events, inform the public, and combat negative publicity. Moreover, the district should serve as a standard for appropriate, professional use of social media, modeling that use for both employees and students.

The district should actively encourage better use of Edmodo through training and modeling efforts. Edmodo is unparalleled as a school-safe method for leveraging social media and cloud storage benefits. Those schools that have successfully adopted the platform should be given opportunities to encourage and instruct others in Edmodo use.

*Electronic media should be incorporated into professional learning.* Administrators and academic coaches throughout the district already provide a wealth of focused training in core subjects. HCDE should capitalize on these efforts by digitizing and sharing them electronically. Existing training sessions should be recorded when possible, and made available in an online format for asynchronous participants to digest and review material at any time. Additionally, live training sessions should be synchronously streamed to allow participation by those unable to physically attend a session.

While the piloting process has begun, the district needs to expand its use by more effectively driving employees to online resources and by more vigorously collaborating with community partners.

*Electronic media should be better utilized for remediation and credit recovery.* HCDE currently has access to several online solutions to help struggling students, such as GradPoint. The district has very recently made strides to better incorporate these solutions in high schools and middle schools, and should further that effort by continuing to facilitate training and support sessions. The current vendor has spearheaded the training of GradPoint, but the agreement with them includes only a limited number of training days. After those days have been used, additional training will be the responsibility of HCDE.

*Media storage should be shifted to the cloud.* HCDE still relies heavily on locally stored files and hardcopies of documents and forms. This reliance is inefficient, insecure and expensive. The district should facilitate the migration of classroom and non-sensitive administrative documents from local hard drives to the cloud, taking better advantage of storage solutions that are free and already available. This migration would involve nothing less than a massive culture shift among the majority of staff and students. The HCDE administration should set the example by moving away from email attachments and hardcopies of non-sensitive paperwork to a system of digitally shared files that remain in the cloud. The district should then encourage a similar model of file sharing for everything from school forms to classroom documents to student work.

Because of the move toward cloud computing, the physical hard drives in end-user devices are actually getting smaller in capacity. More and more, devices are designed to be used exclusively in a web-enabled environment, and cloud management is a skill that needs to be taught as a part of basic computing. In order to prepare students for the cloud-based digital environment of the future, the district should begin now by better utilizing the cloud to teach.

*Electronic media should be incorporated into library services.* HCDE is currently investigating the expansion of electronic libraries in schools, including electronic bookshelves. Several schools have taken the lead on this, and it is the responsibility of the district to encourage and provide support for this endeavor. Libraries are rapidly moving toward digital checkout of electronic holdings in order to both expand circulation and cut down on costs. With the rapidly increasing presence of more mobile computing devices in schools, it becomes necessary for school libraries to modernize and take advantage of these new resources. HCDE should work with those schools that are exploring electronic bookshelves to develop a pilot and help identify a transitional process to move toward electronic holdings and digital checkout.

Electronic media must be used for collaboration between district locations and external resources.

## **Goal 6: Communication**

*Expand and strengthen communication among all stakeholders*

### Current Status:

*Student-Teacher communication* is still almost exclusively accomplished in a face-to-face format, during school hours. Some teachers have expanded communication beyond the school day through the use of email and Edmodo. Too often, this communication is one-way, flowing only from the teacher to the student.

*Teacher-Parent communication* is currently relegated to face-to-face meetings, phone calls, through the use of email, and through PowerSchool, the district's online grade book and the district's outreach and emergency communication system. Parents may also join Edmodo to view online classroom discussion boards, and they can sign up for message broadcasts through such applications as Remind101. Again, this communication tends to be one-way, from teacher to parent.

*School-Parent communication* typically takes the form of telephone calls and emailed or snail-mailed newsletters and announcements and communication messages. Parents may also glean information from the school-maintained portion of the district website.

*School-Community communication* is atypical in any format. When it does occur, this communication tends to be through the efforts of a particularly media-savvy administrator, teacher or parent leader. HCDE provides few guidelines and no training on how schools should cultivate community relationships and officially share information.

*Student-Student communication* that occurs outside the school day includes traditional methods such as phone calls and officially sanctioned channels such as Edmodo discussion boards, but most often takes place via unsanctioned channels such as text messaging, FaceTime, Skype, and various forms of social media.

*Staff-Staff, Staff-School, and Staff-Administration communication* all rely heavily on the district's Exchange email system and the district's outreach and emergency communication system. When staff members are outside the district domain, they must access the email system through the web portal. All HCDE mailboxes currently have a storage limit in place. Some HCDE staff members unofficially use social media such as Facebook and Twitter for work purposes, with Facebook being the far more common of the two.

Projected Status:

HCDE should expand the use of communication tools that are already in place. As a safe method of utilizing social media, Edmodo should be encouraged in all schools, to all students and teachers. School administrators should lead by example and move school announcements and newsletters to Edmodo and the SCHOOLinSITES web presence. This will allow students to respond to posts and open up channels of two-way communication between the school and the students it serves. Additionally, a better use of Edmodo will create a better-informed parental element and will, perhaps, encourage more parental involvement.

School administrators should encourage and require more prompt updating of grades on PowerSchool. Additionally, PowerSchool should be used to better alert parents of upcoming assignments.

The district should maintain more active communication with community partners and media affiliates. Instead of proactively controlling information through carefully scripted press releases and media events, HCDE is too often reactionary to news items. A better-maintained web and social media presence would serve to eliminate much of the misinformation, and could be used to begin difficult conversations on a positive note.

HCDE is currently exploring the migration of email system to a hosted solution. This move will provide a cloud- and web-based email service that will have the same look and feel both inside and outside the district domain. Additionally, moving to a hosted solution will greatly raise the cap on mailbox size and dramatically reduce the frustrations of having to archive essential email communications.

Because of the recent addition of Chromebook devices to the network, HCDE has once again begun officially exploring the benefit of cloud-based storage solutions such as Google Drive, Dropbox and SkyDrive. The district needs to begin moving forward with this exploration, demonstrating how cloud storage can be used for collaboration and sharing of documents and forms. Cloud solutions tend to be robust, free and easy to use, both for administrative purposes and for classroom instruction.

HCDE should also begin taking advantage of those forms of communication that are native to students. Real-time synchronous video solutions such as Skype and FaceTime can be used as powerful teaching tools, able to link homebound students to the classroom and capable of joining our classrooms to others around the world. Social media solutions such as Instagram, Twitter and Vine can be tuned to educational and professional purposes. Google Hangouts can facilitate real-time collaboration on homework, projects and professional learning.

HCDE should better identify ways these burgeoning forms of communication can assist learning and cooperation, and needs to develop programs to share and encourage their use in the classroom.

## **Goal 7: Funding Sources**

*Search for technology funding sources*

### Current Status:

Schools seek funding for technology through Title I, PTA, fundraisers, grants and community support. The district provides support for infrastructure and provides devices to new employees. The Information Technology department notifies schools of grant opportunities and

provides assistance with grant applications. In the past, HCDE has utilized Race to the Top and state technology funds for network infrastructure, data storage and servers.

Projected Status:

The district should enlist a full-time grant writer who can research possible grant opportunities, help schools write grants and assist with the eRate process. HCDE will continue to work with community support and non-profit organizations dedicated to supporting the school system. The lack of technology funding is a critical issue that must be addressed. In order to sustain a robust infrastructure, a prepared teaching force and, ultimately, a technology-ready student population, HCDE must close the funding gaps and ensure that technology is a priority.

## Timelines

### Goal 1: Targeted Professional Development

*Provide teacher support and training on technology integration.*

Action Item	Year 1: July 2013 – July 2014	Year 2: July 2014 – July 2015	Year 3: July 2015 – July 2016
Create a Professional Learning Department	<ul style="list-style-type: none"> <li>Define the scope of the department</li> <li>Hire a Director of Professional Learning</li> <li>Define the role of the Professional Learning Supervisors</li> <li>Define the role of the Technology Facilitators</li> </ul>	<ul style="list-style-type: none"> <li>Hire two Professional Learning Supervisors</li> <li>Establish long-term technology goals and benchmarks for HCDE staff</li> <li>Provide focused training for Technology Facilitators</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate effectiveness of Professional Learning</li> <li>Make adjustments to the program as determined</li> </ul>
Require Technology Professional Learning Credits	<ul style="list-style-type: none"> <li>Identify essential knowledge and skills to be targeted</li> <li>Create framework for delivering professional learning online</li> <li>Train all employees in the use of the IFAS Professional Development Module</li> <li>Create ten online lessons for credit</li> </ul>	<ul style="list-style-type: none"> <li>Begin the requirement of twelve hours of technology professional development per employee, per year</li> <li>Create twenty more online lessons for credit (30 total)</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate effectiveness of Professional Learning Credit Program</li> <li>Create twenty more online lessons for credit (50 total)</li> <li>Make adjustments to the program as determined</li> </ul>
Create Technology Facilitator Positions	<ul style="list-style-type: none"> <li>Begin migrating the focus of TC positions from troubleshooting to curriculum integration</li> <li>Eliminate TC positions at</li> </ul>	<ul style="list-style-type: none"> <li>Hire 25 Technology Facilitators, one assigned to every three schools</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate effectiveness of Technology Facilitators</li> <li>Make adjustments to the positions as necessary</li> </ul>

	the end of the school year		
Build a Technology Consortium	<ul style="list-style-type: none"> <li>Identify categories of technology expertise</li> <li>Identify HCDE staff to serve as experts in each area</li> <li>Build relationships with technology entities and experts within the community</li> <li>Host first technology unconference during Spring 2014</li> </ul>	<ul style="list-style-type: none"> <li>Expand opportunities for technology experts to share knowledge with HCDE staff</li> <li>Host second technology unconference during Spring 2015</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate effectiveness of the consortium</li> <li>Expand the base of technology expertise as necessary</li> <li>Host third technology unconference during Spring 2016</li> </ul>

**Goal 2: Infrastructure**

*Provide and maintain a high density wireless network at each school location to handle a one to one device initiative, PARCC testing and daily instructional needs of the District.*

Action Item	Year 1: July 2013 – July 2014	Year 2: July 2014 – July 2015	Year 3: July 2015 – July 2016
Wireless Installation	<ul style="list-style-type: none"> <li>Complete upgrade of switches and wireless access points in every school building</li> </ul>	<ul style="list-style-type: none"> <li>Monitor network usage and adjust accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Monitor network usage and adjust accordingly</li> </ul>
Bandwidth Upgrade	<ul style="list-style-type: none"> <li>Increase bandwidth to 300 MB as budget allows</li> </ul>	<ul style="list-style-type: none"> <li>Increase remaining schools to 300 MB</li> </ul>	<ul style="list-style-type: none"> <li>Monitor bandwidth usage and adjust accordingly</li> </ul>
Egress Upgrade	<ul style="list-style-type: none"> <li>Upgrade Egress to 2 GB</li> </ul>	<ul style="list-style-type: none"> <li>Monitor Egress usage and adjust accordingly</li> </ul>	<ul style="list-style-type: none"> <li>Monitor Egress usage and adjust accordingly</li> </ul>
Bring Your Own Device (BYOD) Implementation	<ul style="list-style-type: none"> <li>Initiate conversation with vendors on equipment</li> </ul>	<ul style="list-style-type: none"> <li>Evaluate success and failures of BYOD pilot</li> </ul>	<ul style="list-style-type: none"> <li>Implement District-wide BYOD</li> </ul>

	<p>upgrades needed</p> <ul style="list-style-type: none"> <li>• Install necessary equipment at the district level</li> <li>• Create guest network at pilot school</li> <li>• Setup BYOD devices on guest network</li> <li>• Monitor guest network and apply adjustments</li> </ul>	<ul style="list-style-type: none"> <li>• Add additional schools to pilot</li> <li>• Monitor Egress usage and plan to adjust</li> <li>• After completion of pilot, implement remaining high schools on BYOD</li> </ul>	<ul style="list-style-type: none"> <li>• Implement Middle Schools</li> <li>• Implement Elementary Schools</li> </ul>
Technology Acceptable Use Policy	<ul style="list-style-type: none"> <li>• Set meeting to review AUP in April 2014</li> <li>• Adjust AUP for BYOD</li> <li>• Apply any adjustments and send to cabinet by 3<sup>rd</sup> Monday in April</li> <li>• Send for May Board Approval</li> </ul>	<ul style="list-style-type: none"> <li>• Set meeting to review AUP in April 2015</li> <li>• Apply any adjustments and send to cabinet by 3<sup>rd</sup> Monday in April</li> <li>• Send for May Board Approval</li> </ul>	<ul style="list-style-type: none"> <li>• Set meeting to review AUP in April 2016</li> <li>• Apply any adjustments and send to cabinet by 3<sup>rd</sup> Monday in April</li> <li>• Send for May Board Approval</li> </ul>
VOIP Phone Service	<ul style="list-style-type: none"> <li>• Setup meeting with Hamilton County Telecommunications to discuss</li> <li>• Review District Cost for VOIP</li> <li>• Discuss possible pilot for school year 2015-16</li> </ul>	<ul style="list-style-type: none"> <li>• Create an implementation schedule</li> <li>• Choose school to pilot</li> </ul>	<ul style="list-style-type: none"> <li>• Implement Pilot</li> <li>• Monitor network usage</li> </ul>



**Goal 3: Equal Device Access to all Students**

*Provide and maintain devices for every student. Implement BYOD in schools where students can provide their own device.*

Action Item	Year 1: July 2013 – July 2014	Year 2: July 2014 – July 2015	Year 3: July 2015 – July 2016
Device Leasing Program	<ul style="list-style-type: none"> <li>• District decision on pursuing leasing of devices either at the school or district level</li> </ul>	<ul style="list-style-type: none"> <li>• Seek Hamilton County Commission approval of leasing</li> </ul>	
BYOD- providing for less fortunate students	<ul style="list-style-type: none"> <li>• Plan for District to provide devices for students who cannot participate in BYOD</li> <li>• Research purchasing options for parents</li> <li>• Research insurance plans for devices</li> </ul>	<ul style="list-style-type: none"> <li>• Decide on what device to provide students and how to administer</li> <li>• Communicate purchasing options to parents</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate how many students are not able to provide a device</li> <li>• Measure BYOD in comparison to HCDE devices on support and cost</li> </ul>
Digital Citizenship	<ul style="list-style-type: none"> <li>• Form plan for student digital citizenship</li> </ul>	<ul style="list-style-type: none"> <li>• Create curriculum</li> <li>• Train staff</li> <li>• Pilot program</li> </ul>	<ul style="list-style-type: none"> <li>• Implement district wide to all high schools</li> </ul>
Decentralize Computer Tech Support	<ul style="list-style-type: none"> <li>• Evaluate the number of technicians needed and the assignment of schools</li> <li>• Work on budget increases for FY15</li> </ul>	<ul style="list-style-type: none"> <li>• Based upon approval of budget increase, hire additional computer technicians</li> <li>• Setup procedure for schools to report issues</li> <li>• Setup procedure for computer technicians to report to IT</li> <li>• Track helpdesk tickets per computer technician</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate school assignments and helpdesk requests. Adjust accordingly</li> </ul>

**Goal 4: PARCC preparation**

*Assist schools with inventory, computer upgrades and technical support during testing times.*

<b>Action Item</b>	<b>Year 1: July 2013 – July 2014</b>	<b>Year 2: July 2014 – July 2015</b>	<b>Year 3: July 2015 – July 2016</b>
IT Support	<ul style="list-style-type: none"><li>• Evaluate PARCC sample tests</li><li>• Create IT troubleshooting program for test proctors</li></ul>	<ul style="list-style-type: none"><li>• Schedule training for IT troubleshooting September 2014 and January 2015</li><li>• Setup schedule for providing IT support during testing times</li><li>• Measure success of IT support for testing of block schedule- October 2014</li><li>• Adjust IT support and troubleshooting program for next wave of testing- February</li></ul>	<ul style="list-style-type: none"><li>• Schedule training for IT troubleshooting September 2015 and January 2016</li><li>• Setup schedule for providing IT support during testing times</li></ul>
PARCC Assessment	<ul style="list-style-type: none"><li>• Create plan to import data to Cognos</li></ul>	<ul style="list-style-type: none"><li>• Import data to Cognos</li><li>• Evaluate reporting process</li><li>• Design Reports</li><li>• Communicate new reports to schools</li></ul>	<ul style="list-style-type: none"><li>• Evaluate reporting process</li><li>• Apply adjustments to reports</li></ul>

**Goal 5: Development of Electronic Media**

*Utilize a variety of media for communication, instruction, and administration*

Action Item	Year 1: July 2013 – July 2014	Year 2: July 2014 – July 2015	Year 3: July 2015 – July 2016
Expand Appropriate Use of Social Media	<ul style="list-style-type: none"> <li>• Identify the social media resources most effective for use in the classroom</li> <li>• Develop guidelines for appropriate use of social media in the classroom</li> <li>• Create social media training series</li> <li>• Create basic training for Edmodo, specifically</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct an introductory training session on appropriate social media uses for all HCDE employees</li> <li>• Implement training series focused on classroom uses of social media</li> <li>• Retrain at least one expert/advocate for Edmodo in each school</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct a cost-benefit analysis of social media use in the classroom</li> <li>• If applicable, expand training series on social media</li> </ul>
Create a Technology Professional Learning Series	<ul style="list-style-type: none"> <li>• Identify those areas of technology training that would most benefit from being delivered digitally</li> <li>• Identify the resources required to create and deliver high-quality digital lessons</li> <li>• Forge partnerships with area technical, media and educational entities to help deliver digital lessons</li> <li>• Produce ten (10) digital lessons</li> <li>• Make digital lessons</li> </ul>	<ul style="list-style-type: none"> <li>• Inform all HCDE employees of the availability of online lessons</li> <li>• Strengthen relationships with community partners to increase both the quality and quantity of lessons available</li> <li>• Produce twenty (20) more lessons for credit</li> </ul>	<ul style="list-style-type: none"> <li>• Expand the series to include twenty (20) more lessons, for a total of fifty (50)</li> <li>• Evaluate the effectiveness of the series through formal and informal feedback</li> <li>• Make adjustments to the series as evaluation results would indicate</li> </ul>

	<p>available through the HCDE website</p> <ul style="list-style-type: none"> <li>• Develop an evaluation and credit system for lessons completed by HCDE employees</li> </ul>		
Leverage Electronic Media for Credit Recovery	<ul style="list-style-type: none"> <li>• Evaluate effectiveness of current digital credit recovery programs</li> <li>• Expand the knowledge and understanding of digital credit recovery options to all middle and high school teachers and guidance counselors</li> <li>• Complete the initial round of basic training on current credit recovery solutions</li> <li>• Explore ways to more creatively use digital credit recovery solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Begin conducting more in-depth training on the use of digital credit recovery</li> <li>• Identify and develop in-system experts to facilitate continued training</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the effectiveness of digital credit recovery</li> <li>• Make changes and adjustments as necessary</li> </ul>
Take Greater Advantage of Cloud Computing	<ul style="list-style-type: none"> <li>• Create district guidelines outlining what should and what should not be stored in the cloud</li> <li>• Conduct basic training on administrative uses of cloud computing</li> <li>• Conduct basic training on classroom uses of cloud computing</li> </ul>	<ul style="list-style-type: none"> <li>• Begin implementation of a training series on cloud computing</li> <li>• Develop in-system experts to provide continued, school-based assistance with cloud computing solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the state of cloud computing, making adjustments to recommendations and training as necessary</li> </ul>

	<ul style="list-style-type: none"> <li>• Develop a training series to demonstrate effective and innovative ways to use cloud computing to enhance instruction</li> </ul>		
Expand Digital Library Tools	<ul style="list-style-type: none"> <li>• Gather information about digital library solutions</li> <li>• Develop partnerships with area library systems to brainstorm solutions</li> <li>• Identify several school libraries to take part in a digital library pilot program</li> </ul>	<ul style="list-style-type: none"> <li>• Explore further possibilities of digital library solutions through programs implemented by pilot libraries, including funding solutions</li> <li>• Evaluate the effectiveness of the pilot programs</li> </ul>	<ul style="list-style-type: none"> <li>• Make recommendations based on the results of the pilot programs</li> </ul>

**Goal 6: Communication**

*Expand and strengthen communication among all stakeholders*

Action Item	Year 1: July 2013 – July 2014	Year 2: July 2014 – July 2015	Year 3: July 2015 – July 2016
Improve internal communication channels	<ul style="list-style-type: none"> <li>• Develop a more effective system for communicating HCDE announcements</li> <li>• Explore migrating internal announcements from email to other, cloud-based sources</li> <li>• Identify a viable cloud-based email solution and pilot migration from</li> </ul>	<ul style="list-style-type: none"> <li>• Migrate all email services to a cloud-based solution at the beginning of the school year</li> <li>• Conduct district-wide training on the use of the new email system</li> <li>• Conduct district-wide training on the general use of cloud computing for</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the effectiveness of the new cloud-based email system</li> <li>• Evaluate the effectiveness of cloud-based document storing and sharing</li> <li>• Evaluate the effectiveness of internal digital communication solutions</li> <li>• Make adjustments as</li> </ul>

	<p>Microsoft Outlook</p> <ul style="list-style-type: none"> <li>• Develop a cloud-based plan for storing and sharing non-sensitive documents and forms</li> <li>• Identify the most effective synchronous and asynchronous digital methods of internal communication</li> <li>• Develop a comprehensive system-level online calendar</li> </ul>	<p>both administrative and classroom solutions</p> <ul style="list-style-type: none"> <li>• Migrate all non-sensitive documents to a shared, cloud-based system</li> <li>• Pilot the use of both synchronous and asynchronous communication to internal sources</li> <li>• Train appropriate personnel on the use of new methods of internal communication</li> </ul>	<p>necessary</p>
<p>Improve external communication channels</p>	<ul style="list-style-type: none"> <li>• Develop a comprehensive communication plan that involves appropriate digital channels</li> <li>• Identify the most effective synchronous and asynchronous digital methods of external communication</li> <li>• Set standards for the updating of school websites and classroom pages</li> <li>• Set standards for the updating of assignments and grades in PowerSchool</li> <li>• Evaluate school use of SCHOOLinSITES</li> </ul>	<ul style="list-style-type: none"> <li>• Retrain teachers and administrators in the use of SCHOOLinSITES as necessary</li> <li>• Pilot the use of both synchronous and asynchronous communication to external sources</li> <li>• Train appropriate personnel on the use of new methods of external communication</li> </ul>	<ul style="list-style-type: none"> <li>• Evaluate the effectiveness of external digital communication solutions</li> <li>• Make adjustments as necessary</li> </ul>

	<ul style="list-style-type: none"> <li>• Explore the use of burgeoning collaborative technologies for both disseminating and gathering information</li> </ul>		
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**Goal 7: Funding Sources**

*Search for technology funding sources*

<b>Action Item</b>	<b>Year 1: July 2013 – July 2014</b>	<b>Year 2: July 2014 – July 2015</b>	<b>Year 3: July 2015 – July 2016</b>
Create a sustainable budget model	<ul style="list-style-type: none"> <li>• Identify items that lack funding</li> <li>• Review budget items that will increase due to BYOD and 1:1 initiatives</li> <li>• Submit budget amendments for FY15</li> </ul>	<ul style="list-style-type: none"> <li>• Review budget items for unavoidable increases for IT services</li> </ul>	<ul style="list-style-type: none"> <li>• Review budget items for unavoidable increases for IT services</li> </ul>
School/District Special Projects	<ul style="list-style-type: none"> <li>• Evaluate IT needs at school and district level which have lack of funding</li> </ul>	<ul style="list-style-type: none"> <li>• Hire a grant writer</li> <li>• Identify projects to pursue and applicable grants</li> <li>• Apply for grants</li> <li>• Develop a grant writing program for schools and train</li> </ul>	<ul style="list-style-type: none"> <li>• Identify projects to pursue and applicable grants</li> <li>• Apply for grants</li> <li>• Grant training for schools</li> </ul>