COMMUNITY REVIEW

Developing a 21st Century Learning Infrastructure

2013 - 2014 Community Review Committee Wilmette District 39

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INTRODUCTION

BACKGROUND

In 2012-13, the Community Review Committee (CRC) chose to study technology and learning environments and made 17 recommendations. Many of recommendations required additional study and/or knowledge for implementation. As a result, the CRC decided to do a deeper dive and examine three areas from last year's report. Specifically:

Goal #1: Pursue 1:1 Device Availability in District 39

Goal #2: Establish a District 39 Incubator for Technology Enabled Learning Environments

Goal #5: Pursue the Development of New 21st Century Learning Spaces in District 39

Subcommittees were created to learn more about each goal area and to develop recommendations to assist with implementation. From September until March, the groups researched best practices, listened and interacted with experts in the field, as well as visited and interviewed staff from school districts down the street and around the country. As a result, goal areas were modified, hearts and minds were changed, and recommendations were developed.

Ultimately, the three areas studied were all answering the same question: What do we need to do to ensure technology is being used effectively and meaningfully to support District 39's education goal to create 21st century learners? The answer fell into three categories: leadership, structures and tools. Leadership includes the visionaries, administrators, and teachers. Tools are what we give to teachers and students to facilitate learning. Structure is the environment in which this learning takes place. This report presents the opportunities, research and recommendations for each.

This report is a compilation of knowledge gained and lessons learned. The CRC's hope is that the report will inspire and inform District 39 as it continues to transform itself into a leader in preparing students for the 21st century workforce.

INTRODUCTION
A Letter from the CRC President

I want to thank the men and women who served on the CRC and those who came and spoke to our group. Thank you for your time, dedication and commitment to making District 39 a better place for all of our children. This report is a collaborative effort, which includes the lessons we learned researching, learning, and talking together.

This is our second year studying the intersection of technology and education. You may wonder why is the CRC spending two years learning, exploring and making recommendations about technology?

I thought I knew the answer two years ago. As a consultant for the MacArthur Foundation's Director of Education, I toured schools, museums, and libraries around the country. I watched them grapple with how to stay relevant for youth in the digital age. Thanks to MacArthur, they created the most amazing spaces and places to motivate, excite and educate the youth. Places where kids used technology as a tool to engage in self-directed learning – alongside each other and adult mentors. I was excited when I was in these spaces. The kids were deeply engaged ... and deeper learning happens when kids are deeply engaged. I thought, "Boy, I wish my kids could have places and experiences like this. Too bad they can't." Then I thought, "Why not? There are amazing things happening in education today and I want those experiences for my kids and for all of the kids in District 39."

After two years on the CRC researching and listening to world-class speakers, I have a better answer. I am going to steal quotes from Hall Davidson from Discovery Education. He spoke to the CRC in March. He has worked in think tanks in Turkey to classrooms in Tennessee. He has collaborated with thought leaders including teachers, superintendents and consortiums from around the world. You get the picture.

Hall said, "The Future is Now, the world is changing faster than ever before. The speed of change in our educational systems has not kept pace with our times. Kids connect to school differently than in previous generations, it can feel irrelevant and distant. High school, college and employers demand mastery of new skills. Kids will go way beyond what we imagine. Today we are discussing the iPad, but tomorrow they will be wearing Google glasses. We don't want to wait. We can't wait. We want the children to benefit now."

There are legitimate concerns about the use of technology. How it's used will not be perfect. Nothing is. There will be problems. But District 39 committed to an iterative process that will be defined by assessment and on-going improvement. We can't let our fear of mistakes get in the way of responding to what is happening in the world today. We can't lose kids interest, not when their out of school time activities have a global reach and their future employers will demand young adults who can innovate, collaborate, and create.

There are tangible steps we can take to mitigate the risks. This report includes three specific steps:

1. **Develop and adopt a technology strategic plan:** District 39, in partnership with all education stakeholders, will develop a three year plan that articulates a vision and outlines a strategy for strengthening technology based-learning and instruction.

2. **Make technology professional development a priority:** District 39 should make technology focused professional development a priority in response to input the CRC received from teachers and staff and in accordance with best practices, the CRC recommends that the district develop a comprehensive technology professional development plan.

3. **Improve community communication and education about technology in the classroom:** District 39 should increase communications around technology; specifically as we roll out learning commons and our technology plan. The CRC spent two years educating ourselves. District 39 should cast a wide net and bring the community along as it undergoes a digital transformation.

This report is divided into three sections:

Leadership: Includes the visionaries, administrators, and teachers.

Tools: What we give to teachers and students to facilitate learning.

Structure: Is the environment in which this learning takes place.

Within each section, we included background information on why we selected the particular area for review, then listed opportunities we saw, described the research we conducted, and then stated a recommendation to capitalize on that opportunity.

I look forward to having you join me in participating in implementation of these recommendations. Finally, thank you for your interest in the 2013-14 CRC Report.

All my best,

Lisa Schneider Fabes
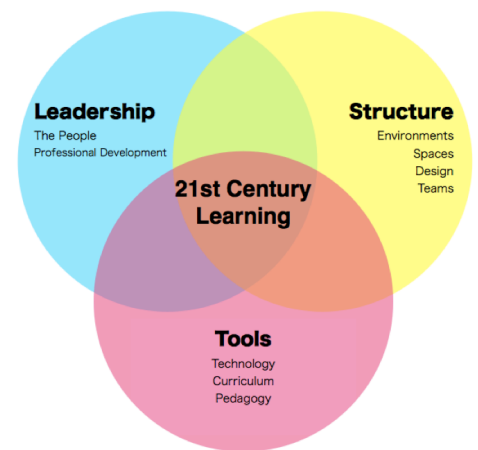
ACKNOWLEDGEMENTS

COMMUNITY REVIEW COMMITTEE
2013-2014 Membership

Executive Board

President – Lisa Schneider Fabes
Vice President – Jim Reddinger
Secretary – Heather Oliver
Past President – Keith Fishe

The Community Review Committee consists of District 39 teachers, administrators, and parents. They attended monthly meetings, conducted research, presented and debated ideas, and ultimately drafted this report.

CRC Members:

Julie Adrianopoli – Central School Member at Large
Beth Alpert – Romona Elementary School PTO Representative
Ali Bleecker – Harper Elementary School PTO Representative
Andy Bosman – Highcrest Middle School PTO Representative
Kristin Brown – Harper Elementary School Grade 1 Teacher
Adam Denenberg – District 39 Director of Technology
Amanda Doblin – McKenzie Elementary School PTO Representative
Jessy Ferdman – McKenzie Elementary School PTO Representative
Heather Glowacki – Romona Elementary School Principal
Katie Gunderson – McKenzie Elementary School Kindergarten Teacher
Maggie Holihan – McKenzie Elementary School PTO Representative
Melanie Horowitz – District 39 Administrator for Curriculum and Instruction
Elizabeth Kaiser – Highcrest Middle School Library Media Specialist
Tracy Kearney – Highcrest Middle School PTO CRC Liaison
Lauren Kolod – Central Elementary School Technology Teacher
Ray Lechner – District 39 Superintendent
Rebecca Littmann – Central Elementary School Principal
Dave Palzet – Highcrest Middle School/Wilmette Junior High School Principal
Steve Rivkin – Harper Elementary School PTO Representative
Christina Rosario – Romona Elementary School Technology Teacher
Jenny Rosene – Wilmette Junior High School Grade 8 Reading Teacher
Andy Schaefer – Member-At-Large
Barbara Ungar – Central Elementary School Library Media Specialist
Rachel Vartanian – Highcrest Middle School Technology Teacher

At each month's meeting the CRC invited a speaker to present on various aspects of technology and learning. Below is a list of all the speakers who addressed the CRC since October of 2013. Each speaker informed each member about current technology in educational trends while also informing this report. We are truly grateful for each speaker's time and wisdom.

Speakers:

1. Cullen Childress, CEO and Co-Founder of Living Tree
2. Hall Davidson, Discovery Education Patrick Hoover, Curriculum Specialist, Grant Tuman, Lead Game Designer, Chicago Quest
3. Steve Dembo, Director of Social Media and Online Community, Discovery Education
4. David Jakes, The Third Teacher + Design Team, Teacher at Glenbrook South
5. Kemi Jona, Northwestern University, Research Professor , Learning Sciences and Computer Science Director, Office of STEM Education Partnerships (OSEP)
6. Scott Smith, Mooresville School District Chief Technology Officer

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> We have a moral imperative to do what we need to do. If we educate our students the same way we were educated – we are doing them a disservice. We are educating them for the past, not for the future. Scott Smith, quoting Dr. Mark A. Edwards, Superintendent, Mooresville Graded School District at the May 5, 2014 CRC meeting

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BACKGROUND

Originally this group was charged with creating the blueprint for a Center of Excellence; or, technology incubator for District 39. However, after surveying the teachers and the principals, the committee realized that the staff and the administration wanted a clear vision and plan for technology for the district which supported them in the implementation of District 39's CONNECTED strategic plan.

> "We would all benefit from a more 'connected' District"
>
> -District 39 teacher

The Opportunity: Currently, District 39 does not have a technology vision or plan. Yet, District 39 is implementing the 1:1 Learning Program and developing Learning Commons. Staff and parents are having difficulty placing these efforts into a larger technology vision; many do not know why the District is implementing these programs. Further, many cannot envision how and why other technologies will be used in the classroom over the coming years. In order to address this issue and extract the full value of technology investments to create optimum conditions for technology-accelerated change, the CRC recommends that District 39 adjust its approach to planning, implementing, and managing technology integration into the learning environment. As a District 39 teacher stated,

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"we would all benefit from a more 'connected' District."

The Research: The need for creating a technology plan stems from several places: the U.S. Department of Education, International Society for Technology Educators (ISTE) standards and the CRC's survey for District 39 Teachers.

A. U.S. Department of Education: The U.S. Department of Education released its own technology plan called the National Education Technology Plan (NETP) in 2010. The plan seeks "revolutionary transformation, rather than evolutionary tinkering." It calls for creating comprehensive technology plans for school Districts and highlights five components that the Department of Education sees as critical to any plan: learning, assessment, teaching, infrastructure and productivity. In the plan education systems are urged to:

- Be clear about the outcomes we seek.
- Collaborate to redesign structures and processes for effectiveness, efficiency, and flexibility.
- Continually monitor and measure our performance.
- Be accountable for progress and results every step of the way.[1]

B. ISTE is an association "committed to empowering connected learners in a connected world." ISTE serves more than 100,000 education stakeholders throughout the world and is the creator and steward of the definitive education technology standards.[2] The ISTE recommends standards of excellence and best practices in learning, teaching and leading with technology in education, and have been adopted worldwide. The Illinois State Board of Education adopted the ISTE Standards for Students, Teachers, and Administrators. In order to effectively leverage technology for learning the ISTE indicates that a school system needs a shared vision for educational technology, empowered leadership, and a clear systemic implementation plan.[3]

C. 2013-14 CRC Survey Results: In November 2013, the CRC administered a survey to all faculty and administrators, consisting of 13 questions. Two hundred-eighty four surveys were returned. The survey results highlight that overall there is a belief in the value and power of technology. Most teachers and school administrators realize the critical nature of technology in preparing our students for college and 21st century careers. More than 80% of respondents indicated that they believe technology increases student's motivation to learn, allows teachers to reinforce and expand on content, and

supports customizing teaching for different learning styles.[4] Fifty-two indicated that they are "excited" about integrating technology into the classroom more and another 37% said they were "cautiously optimistic". However, the survey also suggests that:

Technology implementation varies widely across teachers and schools. The survey reveals that technology does not have uniform implementation across teachers/staff or schools. That said, technology is being used regularly by most teachers/staff, but the manner in which they are using it to improve teaching and learning can be elementary to advanced depending on the teacher. A focused District-wide technology implementation strategy and plan would ensure consistency in access, instruction, and skill development.

Teachers want more guidance, coaching, and training. Teachers/staff largely agree that District 39 needs to create time for teachers to learn and implement new technology with District sponsored training sessions. Many respondents cited professional development days as the answer. Furthermore, teachers want better support onsite for technology questions and more coaching to develop lesson plans and curriculum. A technology plan that addresses professional development would provide much needed guidance to teachers and ensure that they are getting the support they need to effectively utilize technology.

More detailed survey results can be found in Appendix A.

The Recommendation: The CRC Committee recommends that District 39, in partnership with all education stakeholders, develop a three year plan that articulates a vision and outlines a strategy for systematically integrating technology into the classroom, improving instruction and increasing academic success. The plan should drive decision-making around hardware, software, training, and use in the curriculum. It should ensure that all areas of focus, district and individual teacher efforts, are driving towards a common end state. In

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addition it should evaluate existing communication mechanisms, including District 39's website, to ensure parents, teachers and administrators are well informed and working together to meet District wide goals.

Links to technology plans that can serve as exemplars are listed below:

Mooresville Graded School System
http://www5.mgsd.k12.nc.us/staffsites/digitalconversion/Digital_Conversion/Technology_Plan.htm

Forysth County
http://www.forsyth.k12.ga.us/cms/lib3/GA01000373/Centricity/Domain/33/2012-2015TechPlanforweb.pdf

Farmington, MI 5 Year Technology Plan
http://www.farmington.k12.mi.us/district/instructionaltech/district-tech-plan.pdf

Vancover, Washington
http://www.vansd.org/docs/VancouverTechPlan2010Final.pdf

At a minimum, the following questions related to technology learning should be answered:

1. What is District 39's technology vision?
2. What are the short- and long-term goals that will ensure that vision is achieved? How is the technology vision and goals aligned with District 39's overall vision/goals?
3. What is the balance of "District driven" technology initiatives versus local school and individual teacher ideas regarding how technology will enhance learning?
4. How will District 39 ensure that technology is integrated in a strategic and meaningful way?
5. How will curriculum be updated to include high quality standards-based digital content?
6. What are the necessary changes to education buildings and infrastructure, as well as technical support, software and hardware to enable more technology supported learning?
7. How will District 39 provide ongoing, relevant professional development?
8. How will District 39 track and communicate progress?
9. What is the process for measuring success?

10. How will the plan be paid for?

The Opportunity: Although Illinois has adopted the ISTE Standards, very few educators in District 39 are aware of these standards and little has been done to communicate what students are expected to know and what technology and information literacy skills should be mastered by grade level. AASL (American Association of School Libraries) has established clear standards for the ethical use of resources. The Illinois State Board of Education (ISBE) encourages school districts to become familiar and to put into practice these standards. They also encourage teacher training and evaluation around the standards. In addition to the ISTE Standards and the AASL Standards, it is important to note that the Common Core State Standards for English and Language Arts also incorporate the ability to understand and use technology.[5]

The Research: The ISTE established standards for learning, teaching, and leading in the digital age that have been adopted by the ISBE, as well as in 49 other states. The ISTE Standards set a standard of excellence and best practices in technology education and specifically:

- Provide students, parents, and teachers with clearly defined learning goals in all grade levels and content area curricula.

- Promote and support contributions to curriculum due to the ongoing growth and emergence of viable technologies.

- Support teachers in integrating technology by focusing on common learning goals.

The CRC recommends a full evaluation and review of the ISTE Standards and the AASL Standards along with discussion about what is expected to meet Common Core requirements. Ultimately, the CRC hopes that the district will

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communicate grade-level technology content standards and develop appropriate curriculum that aligns with and supports 21st century learning and college/career readiness. As one District 39 teacher suggested in the CRC teacher survey, teachers need guidance from the district to "make sure the technology is relevant to an objective (not just cute activities)." Rather than rely upon individual teachers to determine what is appropriate, the district should define and communicate what the standards and expectations are, and provide training that supports what is expected of teachers and students.

Simply being able to use technology is no longer enough. District 39 needs to be clear about standards and expectations for technology learning and information literacy. By doing so, it will ensure students have the digital skills they need to work, live, and contribute to the social and civic fabric of their communities.

The Recommendation: <u>Develop Grade Level Content Standards and Related Curriculum.</u>
In addition to, or as part of a district technology planning effort, the CRC recommends that District 39 provide clearer guidance and recommendations on what students should know and be able to do with, and within, technology by grade level.

The Opportunity: As part of the CRC survey this year, teachers and staff were asked what advice they have for the district when it comes to maximizing the use of technology for teaching and learning over the next five years. Two themes emerged: 1) Teachers want more training and professional development and 2) Teachers want more support with instructional strategy and design. In fact, an exact comment from one teacher was to "create a director of 21st century learning position."

The Research: District 39 is fortunate to have a Director of Technology and Media Services, Adam Denenberg, who oversees hardware/software implementation and issues, provides guidance and training to District 39's X# of technology and media service staff, and who has effectively helped the district launch a new 1:1 pilot initiative.

The Recommendation: <u>To ensure that the district has the staff it would need to implement a technology plan and to successfully build the technological teaching skills of district educators, the CRC recommends that the district evaluate its existing staffing structure. The CRC encourages District 39 to consider creating a new position or to re-distribute current staff responsibilities in order to employ a Technology Curriculum Coordinator/21st Century Learning Specialist</u>, who would work closely with the current Director of Technology and Media Services and the Director of Curriculum and Instruction to develop new curriculum, tools, and professional

development to ensure equal infusion, utilization and transformation across District 39.

The CRC recommends that the focus of this position would be to facilitate teacher growth and innovation around classroom technology use. Some of the responsibilities of the Technology Curriculum Coordinator/21st Century Learning Specialist might include:

- Guide teachers as to how to utilize technology in their teaching practice in order to advance District 39's CONNECTED goals.

- Develop and facilitate the acquisition of 21st century digital literacy skills among educators and students.

- Collaborate with teachers and administrators to design technology-based instructional content, develop curriculum materials, and develop specific lesson plans based on the ISTE Standards.

- Model the integration of technology, the ISTE and the AASL Standards in all curricular areas.

- Collaborate with faculty, technology and library staff, and students to evaluate and select appropriate digital tools to support their learning goals.

- Build and promote partnerships inside and outside of the district which support the academic success, career readiness, and general well-being of children.

- Encourage innovation and creativity throughout District 39.

- Oversee all of the learning commons spaces and coordinate professional development.

- Ensure there is consistency and equality among all of the schools, so that each school would meeting and exceed technology standards.

In considering hiring another district administrator District 39 has a unique opportunity to be at the forefront of the 21st Century Learning movement. The CRC believes it is critically important for the district to hire a highly qualified leader in technology education – someone who has experience in technology instructional design, who understands best practices and trends, who can create optimum conditions for technology-accelerated change in the district. Not only does the CRC believe additional technology leadership is needed to make the district's technology goals a reality, it believes that with this type of leadership, the district has an opportunity to be a National Leader in 21st Century learning.

The Opportunity: Preparing educators to change their classroom teaching practices to incorporate new resources and meet new goals is a critical component of any learning initiative. The recommendation for more and better-

coordinated technology professional development was a top priority for teachers based on the teacher survey and CRC member interviews with principals and technology specialists. Teachers/staff provided many suggestions as to the type of support/training needed to most effectively use technology to enhance teaching and learning. Some common themes are:

- Technology focused professional development days
- Scheduled training and practice outside of the classroom for devices, apps and websites
- Staff meetings/round tables/small groups for demonstrations and discussions
- More coaching and technology support on site
- Access to examples and best practices
- Assistance with designing curriculum

The Research: According to the CRC survey, teachers/staff largely agreed that District 39 needs to dedicate more time for teachers to learn and implement new technology with district sponsored training sessions in order to maximize the use of technology for the purpose of enhancing teaching and learning. Furthermore, greater access to technology devices would be critical, as well as better support onsite for technology questions. It is important to note that it is a daunting task to ask teachers/staff to plan lessons and educate students while simultaneously researching and training on all of the various technologies available.

Currently, District 39 offers a strong program of within-district professional development opportunities throughout the school year and during the summer on a wide range of topics. Teacher institute days often include course offerings throughout the day where District 39 staff may choose to learn about new technological ideas. Academy 39 courses spotlighting various topics, including technology, are offered throughout the summer and the school year. In addition, each Wilmette school also offers its own forms of professional development, which include voluntary "Lunch and Learn" sessions, collaboration meetings between and among departments, and teacher emails and blogs.

The Recommendation: In response to input the CRC received from teachers and staff and in accordance with best practices, the CRC recommends that the district develop a comprehensive technology professional development plan. A professional development plan should be created to provide customized professional development that aligns to district-wide goals and that empowers teachers to more effectively incorporate new technologies and new spaces such as the learning commons into classroom instruction. It appears that a district-recommended list of sites/apps. and ***regular*** training in small groups during development days would be appreciated and would enhance the overall integration of technology into District 39 learning environments.

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Given its overall recommendations, the CRC further recommends the following direct support for staff:

Technology and Library Media Specialists: Once a district vision for technology is articulated, technology teachers and Library Media Specialists will be the drivers of change in the individual schools. Eighty percent of District 39 teachers indicated that they learned about new technologies from District technology staff. [6] While technology staff play a critical role in their schools, interaction between technology teachers and library media specialists across the various schools is minimal due to lack of time. CRC focus groups with technology teachers and principals suggest that technology and library media specialists are eager to participate in high quality, collaborative learning opportunities that will help them advance in their profession as well as help guide their schools to use technology in new and innovative ways that are more consistent across each school. Collaboration among colleagues in an ongoing professional development structure inspires innovation, collaboration and collegiality. To that end, the CRC recommends that:

- A learning community among district technology staff and library media specialists be formalized.
- Top-notch speakers and educators be brought in to demonstrate and discuss what is possible.
- Technology teachers participate in ISTE trainings through conferences and online classes.
- Technology teachers create annual technology-related professional learning plans for their schools that are approved by the Principal and Superintendent.

Classroom Teachers: To ensure the success of the integration of technology in teaching and learning, professional development (PD) for all educators must be a top priority. PD must be integrated within all content areas and grade levels. It also must be ongoing due to the simultaneous learning of how to use technology, the integration of technology in instruction, and the continual emergence of new and improved technologies and practices. District 39 teachers indicated that they need more training to effectively use and integrate technology and they want that training to occur during professional development days. The CRC recommends:

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- Teacher technology professional development goals should be clearly outlined in the district's technology-related professional learning plan (mentioned above) and ongoing, school-wide PD should be organized by technology teachers at each school in consultation with district technology leaders.

- Each school should offer access to teacher learning labs where teachers have dedicated time to practice and to share ideas about how to effectively incorporate technology into classroom instruction. When possible these labs should bring together teachers from the same grades across different schools. A specific recommendation of a teacher was to "allow teachers time to learn, explore, and share thoughts about new technology with colleagues." The Learning Commons can be used as the training facility, since it is designed as a place where both students and staff experience technology integrated lessons and collaborative learning.

- Teachers should receive a specified amount of "coaching" each year from technology teachers who can help build and design curriculum and projects using technology, troubleshoot issues, and provide one-to-one support to teachers.

- Teachers should be encouraged to attend technology or library conferences that promote the learning commons model. For example, the Illinois Computing Educators (ICE) organization offers both mini-conferences throughout the year and its main technology conference in February. Similarly, the Illinois School Library Media Association (ISLMA), an affiliate of the American Association of School Librarians, offers conference and workshops. Upon their return, they share new information and lesson ideas at future department, grade-level, and building faculty meetings.

The Opportunity: Cultivating and maintaining an environment that demonstrates the District 39's support of teachers and administrators to be creative and innovative contributes to improving best practices and collegial learning across the district. In addition, it incentivizes teachers to explore, pioneer, and share approaches, tools, and methods to improve teaching and learning.

The Research: Employee incentives have proven successful in incentivizing desired behavior and providing emotional rewards for employees across multiple industries and functions. Recent research shows that recognition-based incentives can be more effective than financial-based incentives. Surveys show that recognition, including praise from managers and peers, is a strong motivator that provides very meaningful incentives to employees. The CRC believes that an effective employee recognition could motivate teachers and staff to perform against the technology strategic plan's objectives.

http://www.psychologytoday.com/blog/mind-the-manager/201306/new-employee-study-shows-recognition-matters-more-money

http://talentmgt.com/articles/view/why-employee-recognition-still-matters/print:1

http://management.ucsd.edu/faculty/directory/gneezy/pub/docs/jep_published.pdf

The Recommendation 5: Recognize Innovation
The CRC recommends that innovation in the best practices of technology implementation and integration should be supported, encouraged and recognized.
The CRC recommends that the district highlight innovation by:

- Internally promoting innovative teaching practice through existing communication methods.

- Actively seeking opportunities for District 39 teachers/staff to participate in national initiatives and partnerships aimed to "scale up" innovation and technology. For example, the district could apply and teachers could participate in the Digital Promise League of Innovative Schools, Illinois Computing Educators, the AASL's Digital Learning Day or teachers who are pioneers in the district could be nominated for awards such as the Tech & Learning Awards of Excellence.

- Launching the District 39 Technology Center for Excellence. In 2012-13 the CRC recommended the creation of an Incubator for Technology Enabled Learning Environments, charged with exploration, identification, development, testing, implementation and quality management and audit of new educational technologies and learning environments in District 39.

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[10] Through the CRC's research and discussions with district teachers/staff in 2013-14, there is now greater clarity around the resources and support that is needed. As such, the CRC has re-envisioned the Incubator concept and recommends that the district-wide resource and centralized hub for innovative technology teaching and learning in the district – something that ultimately helps drive the district's goals outlined in the 3-year technology plan. Specifically,the CRC committee envisions that the Technology Center for Excellence will:

- Be a centralized online place for tracking and sharing research and best practices.

- Document and highlight District 39 technology initiatives.

- Present national tools and resources that may advance District 39's technology plan.

- Provide demonstrations of new technology or technology that has be introduced by district technology specialists.

- Catalog and share student samples.

Ultimately, the CRC sees the Technology Center for Excellence as a digital resource that gives educators access to ideas and inspiration on how to integrate and use technology in the classroom. It is a place where teachers can grow and learn together and where District 39 can track and evaluate its progress.

[1] Transforming American Education: Learning Powered by Technology, National Education Technology Plan 2010, Executive Summary, p. 7

[2] International Society for Technology in Education website. https://www.iste.org/about-iste

[3] *Essential Conditions* to effectively leverage technology for learning. http://www.iste.org/docs/pdfs/netsessentialconditions.pdf?sfvrsn=2

[4] CRC Teacher Survey

[5] i.e. Common Core English Language Arts Standard W.4.6 - With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting. http://www.isbe.state.il.us/common_core/pls/level1/pdf/ela-standards.pdf

[6] CRC Teacher Survey

STRUCTURE/SPACE

STRUCTURE/SPACE
Learning Spaces for District 39

BACKGROUND

As a result of the 2012-13 CRC report, Superintendent Ray Lechner charged buildings with the following as outlined in each building's School Improvement Plan:

- Building administrators will establish a building based exploratory team.

- The building based teams will review and evaluate the 2013 CRC report for best practices and innovation as it relates to common learning spaces.

- The buildings should include student input on usage of a new/updated space.

- Staff will investigate the use of learning commons spaces within and around District 39.

- The Learning Commons Committee will draft recommendations for next steps at each school.

The 2013-14 CRC was charged with pursuing a deeper understanding of the development of 21st Century Learning Spaces in District 39. One sub-committee interviewed the principals from each school to identify how it could be most helpful in this process. They found that what is most needed are resources on how to accomplish this task. To facilitate this, the CRC subcommittee researched types of spaces and determined that the best option for District 39 was to create "Learning Commons" spaces. The group organized and

consolidated their research on a website that can now serve as a resource for District 39.

The Opportunity: Based on last year's CRC report, Superintendent Ray Lechner charged each principal in District 39 to develop a plan to create a 21st Century Learning Space by year's end. Staff expressed a need for assistance in creating these plans.

The Research: In the world of education, the notion of space is only recently being elevated to the level of importance of curriculum and instruction. 21st Century learning demands different spaces in order for students to utilize the tools necessary to accomplish these educational needs. According to Schlager and Fasco "*building culture and communities that focus on student learning, peer collaboration, and reflective dialogue help all members grow* (2003)."

Of all the models reviewed during the 2012-13 and the 2013-14 CRC review, the CRC found the learning commons most appropriate for District 39 schools. A learning commons is an evolution of the library and computer lab model. It is a responsive approach to helping schools focus on learning collaboratively. It is an adaptable space for learning that produces a student-focused environment that creates and empowers learners and provides boundless opportunities for growth which allows for the development of "learning partnerships," where students and staff can work and learn together. Per Webb and Palinscar, "*the ability to become a good collaborator -ability to resolve discrepancies, negotiate, and share information- requires engagement of all members, and therefore enhances learning*" (1996).

Further, a learning commons is a place that allows students to develop a higher level of conceptual understanding of materials, also allowing for differentiated experiences due to the varied modalities of learning that can be utilized. Students consistently retain more information the more engaged they are in learning. Unique educational experiences more deeply engage students and as a result they retain more of the lesson taught.

The "21st Century Skills" movement is actually over a decade old, yet classrooms and learning environments look more or less the same as they did fifty years ago. While curriculums are currently being redesigned to reflect 21st Century ideas, most learning environments have not yet been transformed into spaces that allow for this type of teaching or learning. Realizing this, K-12 educational leaders of the Partnership of 21st Century Skills (P21) have designated the "4 C's" as the most important skills students will need: Creativity, Collaboration, Communication, and Critical Thinking (National Education Association). Teaching these 4 C's will provide students with opportunities for success in college, careers, and citizenship in our 21st Century world. The working spaces of many top

innovative companies including Google, Facebook, Disney, and Groupon, all inspire their employees to use the 4 C's every day. District 39's CONNECTED plan directly aligns with these theories: *Evolving our teaching styles, learning process, and environment.* A learning commons should reflect these work environments at an elementary level to inspire our own students' 4C's. This type of space can provide an avenue for students of all levels to harness opportunities for self-directed learning experiences that foster intrinsic motivation that many top corporations put into practice today and many more will in the future when young students are ready to join the workforce. Top researchers Koechlin, Rosenfeld, and Loertscher expressed it best:

Schools must develop new relevant learning models in response to students who expect to learn in new ways using the technology they use ubiquitously outside of school. The learning commons is a real-world whole school approach to creating such a new collaborative learning model for students and teachers (2010 2).

A learning commons is **student-centered**. Students are empowered to contribute to the building, the functions, and the maintenance of the space. Students as well as teachers will have the ability to sign up for use of the space.

The learning commons has **flexible spaces** to maximize a wide range of teaching and learning potential. Both physical and virtual spaces are designed for flexibility. Shelving and furnishings are portable to allow for quick transitions for uses by different groupings.

It facilitates connectivity through communication, using technology to connect to other learners, experts, and ideas around the globe. It also encourages local collaboration using Google Apps for Education, which allows teachers across the district to access and plan with other teachers. Going beyond

"Research has proven that the more engaged students are, the better they learn. How we design space can improve engagement." David Jakes, The Third Teacher + Design Team, Teacher at Glenbrook South, CRC meeting 12/2/13

traditional forms of collaboration, teaching partnerships and networks, the learning commons encourages conversations among classroom teachers, students, librarians, technology teachers, differentiation support teachers, and outside experts as they work together on topical exploration.

The learning commons promotes **higher-order thinking** by having the flexible space to do activities that are designed to teach, apply, and demonstrate critical and creative thinking skills. It encourages participatory learning by having groups of learners work collaboratively, build collective knowledge, and co-create the sharing of new understandings.

The learning commons **showcases learning** by providing a space for activities and displays the results of excellence in teaching and learning. New technologies and learning approaches can be tested and experimented with while being supported by technology and library teachers, the differentiation support teacher, and paraprofessionals.

The learning commons will **further engagement** by promoting authentic learning experiences designed to emulate real world process and use of effective technologies.

The creation of a learning commons does not mean a school is giving up all the benefits of an existing library and computer lab. Instead, these two traditional places unite and transform into a flexible 21st Century interactive learning and meeting space for students and staff. It also takes on the uniting benefit of being a common classroom for teachers and a common office and think tank for all of the specialists in the school. The learning commons serves multiple functions and provides measurable benefits for schools.

Learning commons spaces typically are unique and different from other areas that currently exist in a school. Some examples of spaces include:

- **Studio:** Might include a green screen/lighting, props, costumes, tripod, camera, puppets, and risers/stage.

- **Makerspace:** Might include a flexible space for students to create materials they may need in the studio, presentation, and other areas for a technology-enhanced project. Students can also collaborate using various manipulatives in the room.

- **Presentation:** Might include a SMART Board, a podium, large table, and flexible furniture for small group work. The seating in this area could be mobile and designed to address the kinesthetic modality of learning.

- **Cozy:** Might include a rug and floor cushions, soft, modular seating that can be rearranged, as well as white/magnetic boards for student collaboration.

- **Collaboration Station:** An area with outlets for students to collaborate on laptops or iPads. It might include a movable-monitor with an Apple TV for students to complete project work in a collaborative manner.

STRUCTURE/SPACE
Learning Spaces for District 39

The Recommendation: <u>Each District 39 school should continue the planning for a Learning Commons, with the assistance of a planning professional that specializes in the development of 21st century learning spaces with the assistance of the learning commons website developed by District 39 39 staff.</u> The opportunity to work with an outside consultant specializing in the development of "learning commons" is critical. For example, firms such as the Third Teacher+ and WONDER, facilitate community-planning processes that are infused with experts and expertise and result in transformative spaces in schools. They provide constructive criticism, recommendations and ongoing support to each building while also offering continuity across all of the buildings.

A team of librarians and technology teachers in District 39 created the "[learning commons" website](#). The website creates an online exchange of resources, ideas, and tools that serve as a central hub for creating, utilizing and maintaining a learning commons. The website is organized into five different parts:

1. Definition of a Learning Commons

2. The Philosophy behind a Learning Commons

3. Books for further information

4. Links to innovative products that support a 21st Century learning environment

5. Online opportunities for professional development connected to the Learning Commons

The Opportunity: The groundwork is being laid for a state of the art learning commons at Central Elementary School. As a result of their year-long research, Central School repurposed an empty classroom that was adjacent to the computer lab to create a learning commons "Studio/Makerspace." The vision is that students and teachers will use the space to create, collaborate, and communicate. And of course, critical thinking and problem solving skills will be embedded into everything that happens in this new space. The Studio/Makerspace, as it exists today, is not an actual learning commons, but a pilot space, where lessons are learned and documented.   Early indications are that such a space is well received, well used and an exciting place to be for staff and children.

The Research: The CRC interviewed Rebecca Littmann, Principal of Central School about the process that created the Studio/Makerspace at Central School and how it is being used and received.

The Process: The first step was to form a Learning Commons Committee consisting of parents, teachers, and administrators. The committee surveyed staff, read multiple books and articles on the subject, visited local area school districts, spoke to experts in the field, and attended conferences with international librarians and consultants. They also interviewed and observed elementary students to learn what they need and how they use innovative spaces, technology, and collaboration to facilitate 21st Century Learning.

The planning team decided to begin with resources on-hand and take a phased approach to creating a learning commons. Central School began to adapt its new space with various pieces of unused furniture and discards from classrooms. To make the space more ideal, members of the Learning Commons Committee wrote a grant to the Educational Foundation hoping to do something innovative and different. They were awarded their grant with a partnership between the Educational Foundation and the Central School PTA. Some best practices to utilize space most efficiently include creating a simple "blueprint" to outline how the space will be utilized. Central School's space currently includes five areas: Sound and Film Area, Collaboration Area, Presentation Area, a Production/Makerspace Area, and a Cozy area. Central also re-purposed part of its library to be used for more flexible small group and quiet, cozy areas. The teachers and students are recording how they are using the space, the levels of student engagement, and reflecting on how to use the space in the future.

The Central School Learning Commons is used daily. Highlights of lessons that utilized the potential of the new learning commons space since its October 2013 opening include:

- Fourth graders made promotional videos for the regions of the United States as part of their unit on U.S. Geography…Click here to see a movie.

- An international exhibit was created to showcase and highlight the 2014 Sochi Winter Olympic Games where students researched flags of the countries, kept tallies on the medal count, and played authentic games from various countries. Because the unit was completed in a central area, the entire school community could experience the exhibit, much like a museum.

- As part of Social Emotional Learning and the Second Step program, the Therapeutic Intervention Program LBS facilitated whole-body listening lessons using yoga and the book <u>My Daddy is a Pretzel</u>. They filmed the

students doing their poses with the green screen and students chose backgrounds to add to their videos.

- For National Poetry Month, a "Poetry Pop-up" was created with three areas to interact with poetry: browsing, creating, and performing. All Central students were able to browse poetry books and listen to student-created poetry QR Codes, create "Poetweets" and "Twaikus" that were posted on Central's Twitter account, and perform poems using the Green Screen and puppet theater in the space.

- Second graders created a Crime Scene and Lab to introduce their Mystery Writing unit. Students interacted with a crime scene, used QR codes to collect clues, and completed forensic experiments to solve the crime. The crime scene was in a centralized space and utilized various technology items as well as the open space of the learning commons. The crime scene could remain intact instead of having to recreate it for each second grade class.

- Buddy classes frequently use the space to do collaborative projects on the iPads and read together in a cozy area. Given the flexibility of the space, the area can be quickly rearranged to accommodate large numbers of students.

- Spanish classes used the studio to present plays to their classmates and recorded their work.

- During Children's Book Week, "Number Stories, Books Count", the studio was used across all grade levels for math games, puzzles, collecting data, and reading books about numbers.

- As a service learning project, the 4th graders became teachers to other students teaching them to create looper bracelets for our pen pals at our Sister School in Tanzania. Students across multiple grade levels had a place to meet throughout the school day.

- Kindergarten students used the space for large block construction projects to scaffold their collaborative learning process.

- Third graders used the iPads to create and record Fairy Tale voice messages for a character from a story. They made QR codes of their recordings for classmates and families to guess which fairy tale character they pretended to be. Tech supplies as well as

costumes, props, and other resources are kept in a collaborative space for student use.

Given the success of the Studio/Makerspace, the Central team is committed to creating a true learning commons. For optimal student learning experiences, the three spaces in separate areas of the building must be consolidated, the technology lab, the library, and the studio. As one Central School student stated during student-led tours at Central's Open House, "Well, I haven't been telling the people on my [Studio] tours what my favorite part is. What I have been telling them is that my favorite part is to think about what it will become!" To achieve this, a vision for space is being developed by a design firm hired to facilitate an inclusive planning process.

The Recommendation: Create a state of the art Learning Commons at Central School that will act as a prototype for District 39. Explore similar opportunities for other schools in the district to be implemented in the near future. Central School has community support, outside resources, and lessons learned as a result of the creation of the Studio. Those lessons were documented on a teacher log. Central will continue this documentation throughout the next phase and can invite the District 39 community to participate in the planning implementation, and evaluation.

Elizabeth Forward Middle School developed a Spin Top App on the iPad to teach **design thinking and to connect engineering and art together**. Students created a virtual Spin Top on the iPad, sent it to the 3D printer, made the Spin Top come alive with art, play tested each Spin Top and then competed against other teams within the classroom.

The Opportunity: A learning commons that consists of the current Library Media Center, the Technology Lab, and a Makerspace is an ideal venue for collaboration between teachers. The current staffing model includes the librarian, technology teacher, technology paraprofessional, and the library paraprofessional. When these four people are located in one space, there is a greater opportunity for flexibility, allowing one or more professionals to be on hand to assist in delivering and participating in deep learning experiences for students.

The Research: Staffing of the learning commons will be critical to the successful utilization of these spaces in each District 39 school. According to the results of a CRC survey, teachers feel hesitant to use the space if they do not feel well-supported or comfortable with the technology that the spaces provide. In order to encourage teachers to experiment with the room, it will be important to offer on-site support. With its connections to technology, information literacy, and research, it is imperative to promote collaboration between the teachers and the technology-library department, including the technology teachers, library media specialists, and technology and library paraprofessionals. Due to the unique nature of each school's schedule, the technology and library teachers and paraprofessionals in each building will need to work together to develop the best way to supervise students in the learning commons.

Current elementary staffing plans prohibit relying solely on the technology and library department for staffing the learning commons in the elementary buildings because the elementary technology teachers and the library media specialists operate with a fixed teaching schedule that requires them to teach in the computer labs and libraries at specific periods throughout each day, leaving little time to support other activities led by classroom teachers in the learning commons. In addition, two of District 39's elementary schools do not have full-time library paraprofessionals.

The Recommendation: <u>District 39 should experiment with new staffing models to allow for staffing and supporting the learning commons.</u> For example, extend the responsibility of staffing the learning commons to staff members besides those in the technology-library department. A partnership between the technology department and the differentiation support teachers (DSTs) may lead to high quality collaboration and full coverage of the learning commons. Given the collaborative nature of their teaching position, the DSTs would be extremely valuable in encouraging all teachers to experiment with the learning space.

TOOLS

TOOLS
Comparison with 1:1 programs in similar districts

BACKGROUND

Initially, this subcommittee set out to investigate and research the social/emotional impact on children and families in schools that were implementing 1:1 initiatives. After diving into this purpose, it became apparent that there was insufficient research on this relatively new topic, and that the research that was available was in the context of personal use of technological devices. Simply put, the impact of technology on child development and behavior appears to be influenced by the amount of time spent using the devices for gaming and social media, and therefore not necessarily in the context of an educational setting, at the time of this study. The group also concluded that technology use in classrooms greatly benefits our children in today's 21st Century climate. In short, District 39

students need technology "know-how". In District 39, technology devices should be implemented in the classrooms to be used as tools, to support curriculum and to enhance the educational experience. Accepting the above, the subcommittee refocused and committed to the following resolution and purpose: Access to a 1:1 technological device in classrooms is an imperative tool for 21st Century students to become successful 21st Century citizens. In response, this subcommittee sought to explore, research, and then suggest best practices for a 1:1 rollout to ensure the social/emotional needs of students, teachers, and families remain top priority. It focused on necessary policy changes and ways District 39 should communicate with internal and external stakeholders in relation to the 1:1 program.

TOOLS
Comparison with 1:1 programs in similar districts

The Opportunity: During the 2013-14 school year, District 39 rolled out a 1:1 learning program pilot to 100 sixth graders at Highcrest Middle School. A focus of this subcommittee was to evaluate the current Policy and Procedure for technology and internet use currently in District 39, with the goal of making recommendations to the Board of Education that would help to ensure a clear, concise, systematic rollout of the program should the pilot be deemed successful. Recognizing that a shift from 20th Century to 21st Century learning tools could be perceived as exciting for many families, but very overwhelming for others, the goals of the group was to make suggestions for clear, concise, and transparent policies and procedures so the end users (students and parents/caregivers) would understand their responsibilities and the responsibilities of those of District 39s.

The Research: The CRC subcommittee examined the current policies and procedures applying to Internet and technology use in District 39. Additionally, the committee conducted interviews and researched districts experienced with 1:1 technology implementation. [7] Reviews of these policies and procedures for Internet and technology use revealed the following:

District 39 currently has three different documents applying to Internet and technology use:

- "Access to Electronics Network Policy" (Board Policy 6:235) [8]
- "Student Computer and Internet Use Agreement" [9]
- "Agreement Authorizing Student Use of a District-Owned iPad" [10] outlining acceptable use for networks and technology use.

Other districts researched commonly title their policies "Acceptable Use Policies" (AUP). However, many have policies that are clearer and more concise than the current District 39 policy, thus increasing the likelihood of end-user understanding and compliance. The committee reviewed the policies of more than fifteen school districts and selected three models for closer study for the following reasons:

- Avoca District 37 due to its proximity to District 39 and its reputation for excellence
- Mooresville Schools (North Carolina) – due to its reputation for excellence in 1:1 learning programs
- Gurnee District 56 due to its policies on student usage, technology fee structure, and similar demographic that mirrors that of District 39

Below, areas of interest are highlighted.

AVOCA

The Acceptable Use Policy for Avoca schools includes its policy stating the purpose (mission) as well as the following:

- Specific covered technologies
- Expectations and language defining usage policies
- Web access details
- Email specifications
- Social/web 2.0/collaborative content
- Mobile device specifications
- Personally-owned device specifications (does not allow during school hours)
- Security responsibilities, including personal safety and cyber bullying
- Download policies
- Netiquette, plagiarism, examples of acceptable use and examples of unacceptable use and their consequences
- Limitations of liability on behalf of the district.

Signatures are required to ensure that each party has read and understand the policy. Furthermore, Avoca does not allow for personally owned devices to be used and states the following: Avoca District 37 AUP states: "Students should keep personally-owned devices (including laptops, tablets, smart phones, and cell phones) turned off and put away during school hours – unless in the event of an emergency or as instructed by a teacher or staff for educational purposes. Because of security reasons, when personally owned mobile devices are used on campus, they should not be used over the school network without express permission from IT staff. In some cases, a separate network may be provided for personally-owned devices." [11]

Technology Fee Grades K-8
1 Child $160
2 Children $210
3 Children $260

MOORESVILLE

Mooresville Schools in North Carolina has a Technology Responsible Use Policyrather than an *Acceptable Use Policy*. [12] In one document, the policy states its purpose (mission) and includes the following:

- Expectations for use of school technological resources
- Rules for use of school technological resources
- Restricted material on the internet

- Parental consent, privacy
- Security/care of property
- Personal websites
- Board of Education disclaimer all in one document.

   A student or parent/caregiver signature is not requested. In the body of the policy, under Parental Consent, it states, "Parents of minors are responsible for setting and conveying the standards their children should follow when using media and information sources … The parent and student must consent to the student's independent access to the Internet and to monitoring of the student's email communication by school personnel." Because the title of Moorseville policy is labeled a "Responsible Use Policy," rather than an "Acceptable Use Policy" is especially appealing because it places the correct expectation on the end user.

Technology Fee per Student: $50

GURNEE

   Gurnee School District 56, like District 39, outlines their policies & procedures for 1:1 iPad use in multiple documents, including an "iPad Procedures, Information, and Agreement Handbook" (a 45 page document) and an "iPad User Agreement for Students and Parents."   It is worth noting that the The Acceptable User Agreement is both included in the handbook and offered as a separate document, requiring both student and parent/caregiver signature. Gurnee's AUP defines the iPad's use as "a privilege," and includes expectations for electronic network access, acceptable use, camera use, software applications allowed, a disclaimer for District 39, security, vandalism, defines unacceptable and strictly prohibited use, parent/caregiver responsibilities, student responsibilities, and school/district responsibilities.

   Additionally, Gurnee allows students to: "use/download music, videos, photos, and apps (of the students own choice) on the district-issued iPads [13] with the following parameters:

> *…provided that all applications, games, music, videos, and photos are legitimately purchased and licensed. Also, you (the student/parent/caregiver) are responsible for the appropriateness of all files, data, and Internet history on your iPad. All District owned iPads are subject to inspection and review of files and communications to ensure that they are being used appropriately. Do not expect that files stored on the iPad will always be private as this is a district-owned and issued device. Note: if a teacher asks you to install a required App for a lesson in class, you must make sure you have enough space on your iPad to accommodate the installation, usage, and future file storage of that App. If you do not have the required storage space available for this to occur, you will be asked to remove items, such as apps, games, videos, music, or photos to accommodate the teacher's request as needed for the intended lesson.*

   Gurnee also allows students to "get games/apps that cost money on the iPads (of the students own choice) [14] and allows students to "go on Social networks at home or off-district property like YouTube or Facebook." [15] The parameters of these choices mirror the parameters above.

   Gurnee School District 56's AUP did not make any references to personal devices.

Technology Fee: $0

   All of the researched districts provided the 1:1 technology (i.e. laptop, iPad) for students and were largely funded by their respective districts, with a nominal technology fee charged to the families. Additionally, the use of a personal technological device was not an option, as the tools were expected for use for educational purposes.

The Recommendations:

- Combine all policies regarding acceptable use into one coherent document for students and parents/caregivers. This will ensure that all users have one location to find all of the rules and expectations for technology use and reduces that likelihood for any conflicting information.

- Title the policy "Responsible Use Policy for Technology" as this communicates a positive expectation for student use of this useful educational tool. Additionally, do not refer specifically to iPads, but word the policy, "including, but not limited to …", to provide for any additional technologies that may be introduced in the future.

- District 39 should review the technology fees associated with 1:1 roll outs in comparable districts. Using this information and District 39's financial projections, an appropriate fee structure should be determined.

- Prohibit "Personal Software" and "Personal Content on the Mobile Device" on the technological device purchased by/through District 39 to be used for educational purposes. That would require removing Policy #11 and Policy #12 from the policy developed for the current 6th grade iPad Pilot.

Policy #11 "Personal Software:"
With permission from District 39 and a legally-acquired license, your child may install additional software (apps) on the Mobile Device. However, District 39 is not responsible for providing technical support for personal software (or apps), and such software may be deleted at any time for any reason.

Policy #12 "Personal Content on the Mobile Device:"
Your child should be aware that any content (including, but not limited to, documents, music or audio files, and photographs) stored on the Mobile Device potentially could be subject to access by third parties pursuant to law or subject to discovery in a legal proceeding. In addition, personal content may be deleted in the course of routine maintenance and/or trouble-shooting. It is your child's responsibility to backup all personal content stored on the Mobile Device.

TOOLS

Prohibiting all personal content on a District 39 device helps to ensure that expectations are clear, concise, consistent, and transparent, making it easier for the end users to comply.

COMMUNICATION

The Opportunity: The role of technology as a tool in education is complex and rapidly changing, and while members of the CRC benefited from listening to respected leaders in the field as well as from their time spent time researching the topics, the role of technology in schools may not be clearly understood by the general public. The District 39 community could benefit from similar on-going educational opportunities in similar school districts that enjoyed successful 1:1 initiatives. Each school district made communication a priority in their communities. With so much change, it is time to increase and diversify the type of communications, specifically technology in the educational setting and what it all means for educators, students, and parents/caregivers. As stated in the original intent of the review of Policies, Procedures, and Communication "it has been the purpose of this committee to explore, research, and then suggest best practices for a 1:1 rollout to ensure the social/emotional needs of our students, teachers, and families remain the priority it is currently in our classrooms and at home." The following recommendation has been made as a result of research of local and national districts which experienced both successes in the classrooms through their 1:1 initiative, internally, and have received praise and "buy-in" from their District's families, externally, through their strong support at home.

The Recommendation: District 39 should create a multi-faceted internal and external communications plan around the current and planned uses of technology that focuses on the key benefits to the learner, the improvements to teaching and learning, and clearly articulates how the initiative supports and reinforces the goals in the CONNECTED strategic plan. The plan should be developed as part of District 39-wide technology plan's planning process, mentioned in the first recommendation. A sample outline is attached in **Appendix B**. A list of external online resources for parents is in **Appendix C**.

CONCLUSION

There is hardly a person today, from an entrepreneur to CEO, from an architect to publisher, from a teacher to a sales clerk, who does not rely heavily on technology in order to be competent, productive, creative, innovative and successful. A decade ago, before smartphones and iPads, before wireless access at coffee shops, public buildings and parks, the skills needed in order to be successful in one's job was vastly different. The way we interact, the way we do business, and the way we learn change fast.

The same is true in education. A decade ago, most schools used overhead projectors instead of SMART boards, large amounts of space were dedicated to desktop computer labs, apps and technology-based instructional resources were rarely available. Over the next decade, the role of technology in K-12 education is going to continue to change. Most likely all schools will have 1:1 learning environments, and the iPad may be obsolete with a different device replacing it. Students could participate in virtual and online learning utilizing mobile technology in the classroom, even at the elementary level.

While technology is not a substitute for thoughtful and effective teaching, it is a powerful tool to continue to drive future education. District 39 needs to develop a solid vision and plan for technology implementation that keeps students at the forefront of providing the best education for students. Technology, when thoughtfully introduced and appropriately used, not only improves the way children learn, it also allows teachers and students to create personalized student engagement enhancing student- learning. Students need to continue to develop skills to become proficient in the use of technology tools they will need to succeed in the 21st century.

In order for District 39 to remain competitive, it needs to teach and empower diverse learners to connect, communicate, collaborate and create in interactive, technology-rich environments. It starts with a vision and clear goals, but also requires leadership, public support, and resources. The time is now to develop a long-term technology strategy for District 39 that aligns with District 39's educational goals – let's work together to make District 39 "completely CONNECTED".

[7] District's researched include Avoca District 37, Moorsville Schools in North Carolina, Gurnee District 56, Naperville School District 203, and East Main School District 63, other New Trier Feeders, and Glenview School Districts.

[8] http://www.wilmette39.org/index.php?option=com_content&view=article&id=133&Itemid=187

[9] http://www.wilmette39.org/index.php?option=com_content&view=article&id=369&Itemid=853

[10] http://www.wilmette39.org/index.php?option=com_content&view=category&layout=blog&id=588&Itemid=1353

[11] http://avoca37.org/parentsandcommunity/files/2012/07/StudentAUP2012.pdf

[12] http://www5.mgsd.k12.nc.us/staffsites/digitalconversion/Digital_Conversion//Responsible_Use_Policy_files/MGSD%20RUP.pdf

[13] http://www.d56.org/common/pages/DisplayFile.aspx?itemId=17430275, pg. 35

[14] http://www.d56.org/common/pages/DisplayFile.aspx?itemId=17430275, pg. 35

[15] http://www.d56.org/common/pages/DisplayFile.aspx?itemId=17430275, pg. 36

APPENDIX A: **SURVEY**RESULTS
Teacher Survey Results

The survey consisted of 13 questions. There were 284 total respondents, however for many questions only 224 respondents answered. The questions were partly predefined answers and partly free form answers.

Of the 284 total respondents, 51% work in Core Curriculum and 30% work in Student Support Services. More than half (68%) of the respondents consider themselves confident technology users, while 18% classified themselves as advanced users. Slightly more than half (52%) of the respondents are excited about integrating technology into the classroom more, while another 37% are cautiously optimistic. A majority of respondents (67%) are recommending apps or websites to parents/ students some of the time.

A teacher's decision to recommend apps/games/websites to students/parents varies but recurring themes are:

Teacher tests it first
Content supports concepts from class
Teacher has heard good things from other teachers about app/game/website

The manner in which teachers/staff currently use technology in the classroom also varies but recurring themes are:

SMART boards – Daily
iPads
Schoology
Teacher Websites to communicate information efficiently
Planning and creating more individualized opportunities for students
Math apps/websites
Research
Presentations

Several teachers/staff responses highlighted the supplemental nature of technology towards enhancing core concepts and providing options for customized instruction. A few respondents noted that technology is "cool" but may not actually enhance learning. If nothing else, the survey reveals that technology does not have uniform implementation across teachers/staff or schools. That said, the devices are being used regularly by most teachers/staff, but the manner in which they are used can be elementary to advanced depending on the teacher.

The top 3 uses of technology to support teaching and learning are:

Increasing student motivation to learn	85%
Reinforcing and expanding concepts	81%
Customize teaching for different learning styles	72%

The bottom 3 uses of technology to support teaching and learning are:

Assessing student talents/skills	50%
Increases time for independent student work	48%
Teaching about current events/news	37%

APPENDIX A: DISTRICTOVERVIEW
Teacher Survey Results

It would seem that teachers/staff use technology as a supplement to established lessons and teaching techniques, and as a tool to customize learning. This conclusion is supported by the responses surrounding the type of technology resources in which that teachers/staff are interested:

Educational apps/websites	85%/73%
Curriculum Resources	73%
Modifications for students with IEPs	66%
Teaching Resources	64%

Furthermore, the results suggest that teachers/staff do not need additional technology resources for drill practice (27% not interested) or to support individual research activities for students (20% not interested) or have online exchanges (30% not interested).

Currently, teachers/staff mostly learn about new technologies and how to incorporate them into practice via word of mouth (88%) and District 39 technology staff (80%) or professional development training (71%). It is interesting to note that the majority of respondents prefer to learn about and access technology info and resources on professional development days, during staff meetings or via a monthly email. Interest in a centralized system of technology resources is mild at best (29% of respondents rank this option as 6 out of 9). Furthermore, an overwhelming number of respondents (78%) would rank joining a national community practice with respect to technology implementation and integration as 9th out of 9.

Teachers/staff provided many suggestions as to the type of support/training needed to most effectively use technology to enhance teaching and learning. Some common themes are:

Scheduled training and practice outside of the classroom for devices, apps and websites
Staff Meetings/Round Tables/Small Groups
More technology support on site
More access to technology for teachers (school issued iPads)
Cheat sheets

It is important to note that teachers/staff do not have sufficient time to plan lessons and educate students while simultaneously researching and training on all of the various technologies available. It would seem that a pre-approved district list of sites/apps etc. and regular training in small groups during development days would be appreciated.

Teachers/staff are largely agreed that District 39 needs to create TIME for teachers to learn and implement new technology with district sponsored training sessions in order to maximize the use of technology for the purpose of enhancing teaching and learning. Many respondents cited professional development days as the answer. Furthermore, greater access to technology devices would be critical, as well as better support onsite for technology questions. In addition, a focused district wide technology implementation strategy and plan that drives the decisions around hardware, software, training and use in the curriculum would help teachers feel focused rather than frantic.

When asked what questions we should have asked in the survey, but didn't, respondents offered the following:

What prevents teachers/staff from using technology more?
What criteria do you use to find/rate apps/websites?
What do you feel are the negative aspects of using technology to enhance learning?

APPENDIX B: COMMUNICATION
Critical Components of a Communications Plan Outline

A Communications Plan that aligns with CONNECTED and the goals of District 39 Strategic Plan

- The Communications Plan should include how the 1:1 initiative will support the established **CORE SUBJECT & CONTENT** Goal (the "Why")
  - How this move supports the shift to Common Core standards and its central theme of building knowledge and skills that our young people need for success in college and career and to compete successfully in a global economy.
  - Increased learning opportunities will be provided with student and parent access to district selected core instructional resources such as digital textbooks and teacher assigned materials 24/7
  - A device in the hands of each student will allow teachers to provide differentiated curriculum materials and to customize the personal learning experience for every student
  - Opportunities for all students to independently explore and extend their learning beyond the assigned curriculum
- In Support of **LEARNING** goal and how teachers will be prepared and supported for this shift (the "How")
  - Articulate the Professional Learning environment and all supports that will be in place for teachers and principals in the shift to a increasingly student centered environment
  - Emphasize the critical role of the teacher and paraprofessional in facilitating a continually evolving learning environment both inside and outside of the classroom.
  - How the 1:1 initiative will support the district's goal of greater than 20% of teachers providing evidence of project based and flipped learning environments by providing ubiquitous access to curriculum content with student devices.
  - A focus on the importance of organizational effectiveness and the district's commitment to a world class teaching and learning environment
- In Support of the **COMMUNICATIONS** goal stated in the CONNECTED report
  - Utilize multiple methods of communication in addition to current communication practices to provide greater access to critical district information, including increased use of social media, a revamped and reorganized website with a section dedicated to district communication, and encouraging feedback from community stakeholders
  - An aligned message across all district and school touchpoints with external stakeholders.
- Communicate the effectiveness of the evolving **STRUCTURAL PLATFORM** goal
  - Continue to regularly articulate the successes and key data points from the 1:1 pilot at Highcrest Middle School from a teacher and student standpoint to all parents and community members to ensure the highest level of awareness
  - Focus on the importance of expanding the benefits seen at Highcrest to all learners across the district
  - Reinforce that strong supports and resources will be in place for teachers and principals on an ongoing basis as the classroom continues to evolve

Communication with internal stakeholders.
- Communicate the "Why" internally before externally
- Branding the initiative can be effective means to generate greater enthusiasm and support amongst internal stakeholders as shown in successful instances including Baldwin County, AL - Digital Renaissance, Rock Hill Schools, SC - iRock Initiative, Mooresville, NC Every Child, Every Day, EANES ISD, TX - LEAP Initiative, etc.
- Providing platforms that encourage individuals and schools to communicate their successes, their experiences, and lessons learned.   An example of a school district strategically using social media to collectively share experiences is Parkland School District in Alberta, Canada. #PSD70

APPENDIX B: COMMUNICATION
Critical Components of a Communications Plan Outline

- Ensure a process for internal stakeholders to communicate and provide input and ongoing needs
- Strong central support for recognizing excellence and showcasing exemplar teacher and principal work through recognition program

Communication with external stakeholders.
- Video Message from Superintendent Lechner underscoring key reasons for making the shift (the "Why")
- Revamp website with branding/marketing campaign and encourage external stakeholder feedback (see branding examples above and see Baltimore County Schools as model for website http://www.bcps.org/
- Showcase the "Why" and the "How" that support the CONNECTED plan with community events connecting parents, local business and community leaders with teachers, students, and administrators
  - Showcase exemplar teacher work in action…Display what today's classroom looks like and how teachers are being supported to make this shift
  - Highlight exemplar student work - digital artifacts and portfolios
  - Display how this fits perfectly with the advent of the Common Core and it's central theme of building knowledge and skills that our young people need for success in college and career and to compete successfully in the global economy.
- Provide parents with opportunities to be trained on their student devices both in-person and virtually (example - Mooresville below)
  - MHS Long http://prezi.com/pjewexihhopd/mhs-parent-training-long-version/
  - MHS Short http://prezi.com/qulzw9mlv8ki/mhs-parent-training-short/
- As stated above in support of the **Communication** goal in CONNECTED, ongoing regular, transparent communication via multiple means that highlights successes and encourages external stakeholder participation.

APPENDIX C: MEDIARESOURCES
Online Resources for Students, Parents and Caregivers

Overview: Recognizing that some Parents/Caregivers may feel overwhelmed with the introduction of a 1:1 Technological Device for their child(ren's) use in school and at home, the CRC recommends the following sites for families to access for reference and guidance. One key in understanding how to navigate the digital world in our homes is that change occurs faster at a faster rate than most of us can follow. For that reason, we're highlighting sites that are regularly updated and that offer new information as the digital landscape changes.

http://www.edutopia.org/cyberbullying-internet-digital-citizenship-resources
This link is one of many within Edutopia that parents, students, and educators might want to access to understand digital literacy, digital citizenship, and how the landscape of education is changing in the digital world. Edutopia offers up-to-the-minute articles and ideas, making it a dynamic resource for parents and educators. It is part of the George Lucas Educational Foundation and its mission is innovation in education. While most articles, pages, blogs, etc. will appeal to teachers, Edutopia frequently has blog posts that relate to parenting in the digital age. It is a non partisan organization. Edutopia's "Resource Roundups" offer a number of different links relating to a particular topic. The link above focuses on Internet safety, cyberbullying, digital responsibility, and media/digital literacy, all of which are of particular interest to parents of students with constant access to online content.

http://www.commonsensemedia.org/
Common Sense Media is a comprehensive non-partisan site that reviews books, movies, apps, websites, etc. Their motto is "We rate, educate, and advocate for kids, families, and schools" and the site offers a wide range of resources and research. Their goal is to educate families so that families can make informed choices about how they handle media in their own homes. CSM updates constantly, so in the constantly changing digital landscape, it makes it possible for families to "keep up" with the latest media.

http://www.g4ed.com/index.php
Games for Educators is a site that supports the use of games for education at school and home use, and is based on the research of the benefits of game playing from brain research.

http://www.bewebsmart.com/ (aka Be Web Smart - for the analog parent in a digital world)
Like Common Sense Media, this site "provides articles, tips, guidance and reviews for parents who want to keep their families safe and productive online." This is a simple site that is less comprehensive but perhaps less overwhelming than CSM. Because the site is a one-woman endeavor (Jean Dumais, a "web professional"), the reviews are not unbiased. But her main goal seems to be to look at popular apps and sites and ask the question, "Is it okay for kids?" Then she describes an app's use, shows screenshots, and highlights possible ways to misuse it. She also walks parents through step-by-step processes of disabling or protecting certain features. She also highlights various operating systems, phones, and tablets and shows parents how to make safety and privacy setting changes.

http://www.aplatformforgood.org/pages/about-us A Platform for Good "is a project of the Family Online Safety Institute (FOSI) designed to help parents, teachers, and teens to connect, share, and do good online!" As their site says, "Our vision for A Platform for Good is to start a dialogue about what it means to participate responsibly in a digital world. While recognizing the potential risks, we will celebrate technology as a vehicle for opportunity and social change. We hope to achieve this goal by providing parents and teachers with the resources to learn about and interact with new technologies, and by giving teens the ability to engage and teach their peers, family members, and educators. Through this approach, we hope to encourage good digital

APPENDIX C: MEDIARESOURCES
Online Resources for Students, Parents and Caregivers

citizenship, responsible online behavior, and the use of technology for positive change and making a difference." Their illustrious cadre of advisors, including Noopur Agarwal, the Vice President of Public Affairs for MTV and Rosalind Wiseman, the author of *Queen Bees and Wannabees* and *Masterminds and Wingmen* lends them an air of credibility, though it's not clear how often the site is updated.

http://www.fosi.org/
The Family Online Safety Institute an international institution working to make the Internet safer for families and kids. FOSI works "towards this goal by identifying and promoting best practices, tools and methods that also respect free speech." Mostly the FOSI works with industry, government and not-for-profit organizations "to collaborate and innovate new solutions and policies in the field of online safety." However, they have a tab for parents which links to a manageable list of good resources.

http://www.parenting.org/
This site offers quick tips, articles and videos. They are offering a way to help parents manage a family's technology use.

http://www.pbs.org/wgbh/pages/frontline/digitalnation/resources/
Learn how to be a better parent, teacher or caregiver to the "digital natives" in your life and gain the knowledge and skills for understanding, analyzing and participating in our technology-infused world.

http://www.netsmartz.org/Parents
Parenting wired kids can be difficult, especially if you didn't grow up with the same technologies. These resources can help.

Well Researched Reviews
 http://www.wellresearchedreviews.com/
Monitoring and filtering software for your home computer.

The Wall Street Journal - Talking To Your Kids About Cyberbullying

Tips on how to discuss cyberbullying with your child.

StopCyberbullying.org

A site dedicated to cyberbulling information.

Family Online Safety Institute

Access their Parent/Child Safety Contract and other helpful information.

Connect Safely
 http://www.connectsafely.org/
The forum for parents, teens, and experts to discuss safe socializing on the Web.

APPENDIX C: **MEDIA**RESOURCES
Online Resources for Students, Parents and Caregivers

Frontline

A PBS site about growing up online.

InternetSafety.com

SafeEyes is popular parental control safety software.
ikeepsafe "tool kit" and safe eyes and other parental control safety

http://www.pbs.org/parents/childrenandmedia/article-when-introduce-child-smartphone-tablet.html
http://talktechwithme.wordpress.com/
Talk Tech With Me is a collection of ideas and thoughts on technology in education. This is a cool blog written by the Director of Educational Technology position at Archbishop McNicholas High School. It offers an educators insight to parents by posting videos, ideas and articles from the technology community. It is a great place to go to just to get a pulse on what is currently happening.

http://www.onguardonline.gov/features/feature-0004-featured-net-cetera-toolkit
The Federal Trade Commission manages OnGuardOnline.gov, in partnership with federal agencies. OnGuardOnline.gov is a partner in the Stop Think Connect campaign, led by the Department of Homeland Security, and part of the National Initiative for Cybersecurity Education, led by the National Institute of Standards and Technology.

http://www.gonevirtual.org/digcit.html
#digcit is dedicated to teaching and learning in a complex, global, digital networked world. They are committed to empowering educators, parents and learners to integrate empathy into 21st Century Learning. The ability to communicate, collaborate, create, and think critically at rapid speeds dictates the need to embrace a social etiquette as never before expected. Bridging face-to-face interactions to those online develops socially responsible 21st Century Citizens. Their focus is on PK - 12 education. They provide consulting services in a variety of formats on a variety of topics. Audiences range from students, educators, parents and community members.