Case Study - District Technology Planning

Planning for Technology

Summer 2014

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June 22, 2014
Introduction

I would like to introduce myself. My name is Stacy Mercer. I am the new technology planning consultant. I have been asked by the Board of Education to provide some guidance with re-writing the district’s new technology plan for the future integration of technology, so they will be certain that their investment in educational tools is well planned, purposeful and centered around student achievement. I intend to bring the district up to speed in relation to the district’s current technology status.

I have reviewed the current state of technology in the Farmington Public School district (FPS) through carefully reading and analyzing the current Technology Plan. I am also cognizant of the National Educational Technology Plan and the State’s Educational Technology Plan. I will identify broad strengths and weaknesses of the current state of technology in the district and I will propose specific recommendations for the district’s next technology plan.

I have visited and examined your school district’s website at:

http://www.farmington.k12.mi.us/district/

I will adhere to your school district’s Mission Statement:

Farmington Public Schools, together with our community, will engage every student in a quality learning experience, empowering each student to become a thoughtful, contributing citizen in a changing world.

Additionally, I will be mindful of the District's Vision Statement - Adopted 2006

The vision of Farmington Public Schools is high achievement by all students, where learning is our most important work. We are a district in which:
Students, teachers, parents, community members, support staff, and administrators work collaboratively to create a positive learning environment to ensure all students are successful, competent and productive.

Teachers hold high expectations for all students.

We rely on our diversity of thought, perspective and people to build on our strengths.

All students and staff feel empowered and supported.

Teachers use best practice in every classroom to engage each child.

Each school provides a safe, caring and nurturing environment for students, staff and parents that enables every child to experience the joy of learning.

Decisions are based on data and quality information.

Although, the FPS Technology Plan is lengthy, the District Tech Plan Overview that includes the eight main goals on ten pages is available on the school’s website. This might be a better document to share with teachers, students, parents, and other stakeholders.

Planning Team

There are three distinct planning teams: the Technology Advisory Group (TAG), the Educational Technology Advisory Committee (EdTAC), and the Technology Plan Development Work Group. The mission and what each team is “charged” with are also clearly identified. Yet, later in the plan there are School-based Instructional Technology Specialists and Media
Specialists identified. Are these separate groups/teams too or are these the instructional department? Why are there so many different technology teams? Are all of these different teams necessary? Do these teams provide accountability for themselves?

The TAG is to support the implementation of the Technology Plan by bringing representatives from the Informational Technology and Curriculum Departments together. How are the people on the Informational Technology and Curriculum Departments chosen to be on the TAG? There are no names listed for this team. Does this team continually change? It is good that they meet regularly to communicate and collaborate with each other and the instructional departments. How often is “regularly”? How do they examine and change technology? What is the examination based upon? How do they change the technology?

The EdTAC is to develop, recommend, implement, support, and communicate the Technology Plan. EdTAC is a large committee representing instructional grade levels, content areas, and departments. How is this large committee, EdTAC, chosen? There are no names listed for this team. Does this team continually change? How do they encourage and support innovative technology use and practices? How is the exploration and recommendations for emerging technologies supported? How often do they apply for grants? How do they encourage and support professional development and training for all employees?

The Technology Plan Development Work Group lists specific names and relationship to the district. How were these people chosen? I notice that there are no K-4 teachers, math or science teachers, superintendent, principals, parents, or students that have contributed to this Technology Plan for the academic years spanning 2012-2015. Why? Moreover, according to Arne Duncan in his letter to the members of Congress concerning the NETP, which is “the most
rigorous and inclusive process ever undertaken for a national education technology plan.” He states, “We engaged with and incorporated input received from hundreds of industry experts, thousands of educators, and the public.” Through the parent focus group, the parents and community members were able to collaborate and discuss some questions such as, “What are the tools and application that you’d like to see your children using in their learning,

I recommend that anyone that is interested in being part of the technology planning committee submit a written request. We will then create a ballot listing all the interested parties: administration, teachers, parents, and all other stakeholders will get to vote on who will be on the Technology Planning Committee.

Curriculum Alignment & Instructional Integration

“Farmington Public Schools is dedicated to using technology to enhance learning, which engages and empower all learners in a global society in order to foster a productive, innovative, and ethical citizenry” (Farmington Technology Plan, pg. 7). It also states, “A critical component of the plan will be to create a multimedia-rich environment of anywhere, anytime learning… that meets the needs of all of our learners.” This is aligned with the NETP goals and recommendations for the learning essential area that calls for engaging and empowering learning experiences for all learners that says what and how we teach to match what people need to know, how they learn, where and when they will learn, and who needs to learn.

Yet, the 8 specific goals on how the District will support the integration of technology in teaching and learning are: Mobile Student Centered Computing, Interactive Multimedia Capable Peripherals, Professional Development, Electronic Resources, Bring Your Own Technology (BYOT), Curriculum Integration, Online Learning, and Innovation. Having
the Purpose, Observable Teacher Behaviors, Observable Student Behaviors, Action Steps and Timeline, Resources, Exemplars/Evidence of Positive impact on Student Achievement, and Evaluations plainly shown with a bulleted list and clearly explained is beneficial.

**Mobile Student Centered Computing**’s purpose is to create a one-to-one computing environment, but is 1:1 technology provided by Farmington Public Schools or is the 1:1 reliant upon BYOT? How are the Action Steps and Timeline of 1:1 laptops, tablet/touch devices, and/or handheld computing devices for all learners implemented? Including the Exemplars/Evidence of Positive Impact on Student Achievement of “Increased student and teacher motivation and engagement in learning process is a great indicator for answering the question from “Asking the Right Questions: Techniques for Collaboration and School Change” by Dr. Edie Holcomb of “How will we know we’re getting there?” By empowering students they will gain an ownership of their learning.

**Interactive Multimedia Capable Peripherals**’ is to provide a personalized learning environment that is dynamic and engaging. An Observable Teacher Behavior is that teachers are empowered to facilitate student-centered and differentiated instruction related to best practices in teaching and learning. The delivery of the curriculum must be student-centered, so why must *every* teacher in *every* content area in *every* grade level have and use the same tools to facilitate an authentic learning experience for their students? Teachers must be informed about the diverse, variety of technology tools that could be obtainable for them to use, decide upon which tools would enhance their teaching, and have each teacher write a short proposal of what tools they would like to be furnished, how they are going to use the tools, and how the tools are going to enrich the learning environment.
Electronic Resources are great for “on-demand information.” This is similar to the NETP “Always-on-Learning mentality and the state’s intentions. The purpose of creating and sharing resources is to foster a collaborative learning environment. Teachers are to access, create, and manage digital resources and participate in a collaborative environment with colleagues across the district, county, state, and nation (globally too?) where there is more reliance of the digital resources than the paper resources. Students learn from digital books, textbooks, and class resources while accessing course management modules or online versions of their classrooms at any time, from anywhere. This is the same seamless integration of in- and out-of-school learning that the NETP describes. What about the filtering issues at school for YouTube, Wikis, and other blocked websites? How will this be handled?

Bring Your Own Technology (BYOT)’s purpose is to expedite the attainment of a 1:1 computing environment to promote a sense of empowerment in teaching and learning. It is absolutely agreed that staff, students, and parents MUST be educated on the intent, concept, and policy of BYOT. Devices must be made available for students that do not have their own device, but if a student does not have their own personal technology to bring to class or it is not the newest and greatest device that is out there is this going to cause feelings of jealousy, inferiority, and a competitive attitude, that some students will learn to despise technology because of not be afforded their own digital device? How can this be alleviated?

Curriculum Integration is being built upon the foundational blocks of TPACK which is the intermingling of Technological Content Knowledge, Technological Pedagogical Knowledge, and Pedagogical Content Knowledge. Technology integration must implement the Common Core State Standards, the International Society for Technology in Education National Educational Technology Standards (ISTE NETS), the NETP, and the State Educational
Technology Plan. Only by using the TPACK framework will students become aware of the instructional purpose of using technology in learning (i.e. as opposed to the common idea of technology being a novelty or means for entertainment). How is the students reporting on integration of curriculum within the classroom handled? What does this mean?

Students will construct knowledge through a variety of processes to enhance their own learning. They will engage in responsible and appropriate behavior developing proper Digital Citizenship and Netiquette. Will students be able to access podcasts, wikis, and social networks at school or will they be blocked due to the necessary Internet filters? How will the 5-step process of adoption, construction, development, identification, and consideration be handled with a “small team of teachers”? This team of teachers are to analysis summative and formative assessments? Who will be providing the critical training? How will this be funded? The Common Core Smarter Balanced Assessments website is incredible! What a great resource!

**Online Learning**’s purpose is to allow for the implementation of a more relevant and individualized education for students, a more flexible schedule, and provide accessibility for the teacher and student beyond the typical school day. Facilitating a rich, meaningful online learning environment enables the relationship between teacher-student to be a more authentic learning experience where the student is able to be heard and the teacher is able to see and hear the individual student’s strengths and weaknesses so the necessary interventions and/or accommodations can be administered appropriately.

FPS recognizes the need of providing “distance learning” to the students and teachers. These “distance learning” opportunities would include online courses being offered for Advanced Placement (AP), credit recovery, create a blended learning environment, or “flipped”
instruction to encourage and extend learning beyond the school walls, but this progressive thinking is in the experimental stage and has a lot of potential for best meeting the future needs of the students.

**Innovation**’s purpose is to cultivate and maintain an environment that provides structure support to be creative and innovative while improving best practices. Giving teachers a goal of becoming a “Certified E3 Teacher” will give them an intrinsic goal to strive for. This type of thinking is in alignment with the NETP’s goal of productivity and getting more out of each dollar we spend. The E3 program does not provide a monetary reward to teachers, but rather an intrinsic reward. This program will enhance teaching through the integration of innovative practices, increase student engagement in the academic achievement, and teachers and students are empowered to apply technology in innovative ways to solve problems. Hopefully this will empower students to take pride of ownership in learning and create an attitude of being a lifelong learner.

Are all teachers aware of the TPACK framework? Perhaps, the district could provide some training and/or in-service for teachers to learn about TPACK and how to implement it in their classroom. The district could provide some initial training during the summer or at the beginning of the school year and then offer follow up in-classroom visits to support the authentic integration of technology integration in the interested teacher’s classrooms.

**Technology Policy, Leadership and Administration**

The leadership of technology integration is greatly supported through the use of School-based Instructional Technology Specialists (ITS) and Media Specialists Supporting the Technology Plan (MS), but there seems to be a lot of unnecessary overlapping of duties, such as:
ISTE NETS for coaches, teachers, and students, PD, mobile computing, multimedia capable classrooms, and online learning.

The ITS are more involved at a district-level for innovation, curriculum integration, ISTE NETS for administrators, and BYOT policies. They are the inspiring participants that will assist teachers in using technology effectively for assessing student learning, differentiating instruction, and providing rigorous, relevant, and engaging learning experiences for all students. They will be working directly with teachers and administrators to create a Universal Design for Learning (UDL).

While the MS are more involved in school-level, student integration for AASL 21st Century Learner, creating content and making electronic resources accessible, supporting and promoting district initiatives at the building level, Common Core, and media center-based responsibilities. They are responsible to support a culture of inquiry learning among all students and staff and ensure that the media center is a valuable learning space that fully supports the learning needs of the community. They will co-teach and encourage and support a culture of inquiry among all members of the learning community.

Why does FPS need both ITS and MS? Are these job responsibilities so similar that this is actually one job responsibilities? What is the Instructional Technology Coordinators responsibilities? What is administration’s responsibilities? Is there a “Technology Policy” or just a Technology Plan? Is it something that staff would sign to acknowledge there accountability to it? Although, this is a large school district, servicing 11,000+ students, there seems to be an expensive, top-heavy management system in place at FPS. Is this necessary?
I recommend that ITS and MS are combined to one job title and eliminate some of the unnecessary expenses of have many people employed doing very similar, if not the same job at the same school. Perhaps, administration (i.e. principals, vice principals, counselors, and superintendents) could assist with some of the technology integration to alleviate some of the expensive salaries being paid to do the same job. It seems like it would be wiser to use this money to develop the individual teachers’ knowledge and skills in actually implementing technology in a rich, meaningful manner.

Including the Farmington Public Schools Acceptable Use Policy (AUP), Responsibilities, a Permission Form for Students’ Photographs & Work To Appear on the Internet, Curriculum Integration Examples, and the TPACK Venn Diagram are powerful resources to include in the Technology Plan that are accessible on the school’s website for all stakeholders.

**Technology Infrastructure Management and Support**

FPS Technology Plan states, “Professional Development (PD) will be a top priority for the success of all learners. PD must be integrated within all content areas and grade levels. Also, PD 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… PD needs, design, planning, implementation, delivery, and evaluation will be a collaborative effort amongst various stakeholders” (FPS Technology Plan, pg. 23). PD must be an ongoing, collaborative endeavor that all parties involved are given a chance to voice what type of support and training they need to ensure teaching and learning is successful in reaching the 21st Century Outcomes as stated by the NETP and the State’s Technology Plan.
“E3” Certification is an innovative idea that could motivate teachers to become more adept and efficient at effortlessly integrating technology into their daily lessons and overall pedagogy. This sense of pride can be a strong motivator for some teachers to go “Above and Beyond.” How would the various “levels” be established, monitored, and moved through? How would students go about becoming E3 certified? Who would handle this certification? If this is an intrinsic motivational PD initiative, does the school need to buy various paraphernalia? An E3 teacher would be an excellent resource to spread information, best practices, opportunity and mastery of innovative teaching. What a great way for a school to re-use their valuable teachers as the priceless resource that they are.

Free-online resources should also be utilized to support PD and develop the attitude of being a lifelong learner in both teacher and students. Offering summer, evening, weekend, small and large chunks of time, and a multitude of formats and topics will allow learners to participate in relevant and worthwhile PD. Some of the most important resources that must be considered are continuous training, a variety of presenters (across all levels, content areas, and from outside district), differentiated menu (beginner to advances), financial support for necessary materials, SBCEUs and/or college-credit, surveys to find out need, and collect feedback to continuously be improving.

The ISTE Seal of Alignment Resources for Readiness, Proficiency, and Mastery is a powerful resource that helps people improve their ISTE Standards skills and move them toward becoming digital age learner, teachers, and leaders no matter what skill level they have at the start of the journey. The other two hyperlinks are not working properly.
“In supporting the District’s technology Plan, the District’s Information Technology Department follow 4 categories established by the International Society of Technology in Education (ISTE) Technology Support Index. This TSI includes areas of Equipment Standards, Staffing and Processes, Professional Development and Enterprise Management” (Technology Plan, pg. 30). Is “Enterprise Management” and “Intelligent Systems” as listed in the TSI on http://arkansasfacilities.arkansas.gov/public/userfiles/documents/facilities_manuals/Fac_Manual_Other_Sections/Section_5_-_Chapter_4_ISTE_Technology_Support_Index.pdf? Has FPS completed the required 50-questions? What were the results? The TSI states:

By completing less than 50 questions, you will be able to objectively ascertain the strengths and weaknesses of your school district’s technology support program. Upon completion, these results are immediately provided to you in the form of a district profile and a technology action plan for improvement. Aided with this important information, district staff can develop clear, strategic goals with which they can confidently approach their school district administration, school board, corporate partners, and others. Parents and staff will have a better understanding of the importance of technology support and will also have a roadmap of possible strategies. A carefully selected but substantial array of technology support initiatives can be made available to both teachers and administrators as the result of a thoughtful and strategic approach.

The FPS district has come a long way with infrastructure in the past 5-6 years, but was it ALL necessary? I would like to see the districts profile and technology action plan for improvement before making any definite evaluation and recommendations.
The salaries of the Informational Technology and Instructional Technology listed on the Funding & Budget on page 33 are currently:

11 Information Technology Support @ $1,040,000/year, so each 1 @ $94,545.45/year

13 Media Specialist @ $1,605,000/year, so each 1 @ $123,461.54/year

1 Technology Coordinator @ $109,000/year

This is a total of $2,754,000/year

The proposed increases are as follows:

3 Media Specialists @ $370,500/year, so each 1 @ $123,500/year

4 Instructional Technology Specialists @ 494,000/year, so each 1@ $123,500/year

6 people with ½ time positions as K-4 Teacher Coaches @ $370,500/year, so each ½ @ $61,750/year

2 people with ½ time positions as 5/6 Teacher Coaches @ $123,500/year, so each ½ @ $61,750/year

1-7/8 Teacher Coach (Position to be distributed as “release hours”?) @ $123,500/year

3-High School (9-12) Teacher Coaches @ $370,500/year, so each @ $123,500/year

This is a total increase of $1,852,500/year
This is a grand total of $4,606,500/year for Informational Technology and Instructional Technology. This is a 67.3% increase to the IT budget.

According to salary.com at http://www1.salary.com/MI/Farmington/Public-School-Teacher-salary.html teachers at Farmington make a median annual salary of $52,233. Why is the IT department’s salary so much more than the teachers at Farmington? Is the IT positions considered administration? What is the rational for these positions being paid so much more than the instructional department?

I cannot understand the Annual Estimated Technology Expenses. 2012-2013 the budget was $5,923,500. In 2013-2014 the budget rose to $8,528,000. Why? In 2014-2015 the budget dropped to $6,103,000. Why? What is going on?