OAK PARK ELEMENTARY SCHOOL DISTRICT 97
Oak Park, Illinois

March 23, 2010

District 97 Technology Planning – Part 2:
Essential Tools for Empowering 21st Century Learners

Strategic Plan End Results:

- **1.3 Adapt instruction to meet the needs of different academic abilities and learning styles.**
- **1.7 Implement professional development programs designed to improve student achievement.**
- **5.6 Ensure 99% uptime for every-day technology needs.**
- **7.6 Ensure current, cohesive, and extensible technological systems and support for communication across the district.**

State of the District: Technology Infrastructure and Hardware

In the past, District 97 maintained a fairly regular schedule of maintenance and upgrades on the technology infrastructure. During this time, the District was viewed by neighboring districts as being "on the cutting edge" with technology and well ahead of other districts.

- 94-95 – The original Karlnet WAN was installed with a network speed of 2 Mbps.
- 97-98 – A new INET WAN was installed with a speed of 4 Mbps.
- 99-00 – All school servers were upgraded.
- 00-01 – The next WAN was installed at 11Mbps/45Mbps.
- 03-04 – All school servers were replaced.
- 04-05 – 2 Additional T1 circuits were added for Internet access.
- 06-07 – The District leased 381 new desktop computers and 120 new portable computers. These computers were distributed to all schools based on the classroom distribution model set by Teaching and Learning. We also recycled a number of computers that had passed their prime and were in need of replacing. We installed a new product, Kanaka, which is designed to integrate the login on our Mac workstations with our Novell Servers. This product was successfully tested in the spring at Julian and in a lab environment. The program was to provide users with additional features not previously available.

We experienced a number of issues with Kanaka that stemmed from a change in Apple's OS X that was released over the summer. We worked with the developer of the product and our own technical staff to isolate the specific problems. After several server restarts and product updates (which required updating every Mac workstation), we had a working combination of server and client product.

Because of access and log-in problems for many teachers, we backed off on expectations for the use of recently purchased software programs. Classroom use of Classroom Suite, My Gradebook Pro, and unitedstreaming were slowed down by our computer issues.

We were operating at this time with a support staff of 5 Technology Specialists with one vacancy. This operating staff was down from 10 Technology Specialists prior to budget cuts 4 years earlier. The tech office staff was also down from 4 district-wide support staff to 2 staff (tech administrator and network administrator).

We were also nearing the time to upgrade our wireless WAN. We could simply upgrade the existing wireless infrastructure or we could look toward a fiber implementation. Both were viable options and had advantages and disadvantages.

We began to experience some unexpected slowdowns and server stoppages at several buildings. We investigated solutions to these issues, including the possibility of replacing the server hardware in at least one building. The servers were now generally five years old, with a normal life expectancy of 3-4 years under continuous usage. Consolidation of the servers to one central site was one possibility if the District upgraded to a fiber network structure. We were trying to carefully assess when the best time would be to purchase or upgrade servers if the entire configuration changed.

In the years immediately preceding the 2006-07 school year, the technology infrastructure of District 97 had been maintained at a level which could best be described as "adequate for low level usage." During the 2006 – 2007 year, however, it became apparent that decisions needed to be made concerning this infrastructure since the equipment was rapidly becoming obsolete while the usage and demand was growing at an increasing pace. The technology edge enjoyed by the District had largely disappeared as neighboring districts began to install faster networks, provide more computers to staff and students, and supply LCD projectors and interactive whiteboards.

The original plan for equipment replacement called for major purchases and installations to be made during 2006 - 2007. This plan was delayed in order to meet budget reductions necessitated by the recent state of the District's finances. The previous director noted, as of his last report in Spring 2006, that the District would be living on "borrowed time" in regard to equipment replacement and that the District would be facing very large expenditures in the future to catch up for past delays. As was evidenced by the repeated structural concerns and failures during the 2006 - 2007 school year, the time had come for conducting major upgrades to the system. In much the same manner that other utilities were planned, maintained, and improved, the technology infrastructure needed to be viewed as a necessary foundational component of both the physical plant and the instructional program. Because of this need for immediate upgrades to speed and capacity, the following projects were completed during spring and summer 2007:

- The upgraded wireless WAN installation was completed on 5/11/07.
- The new Apple servers were configured and installed in May.
- The last piece of that upgrade project took place over the summer. The internal building networks at all elementary schools were upgraded to match the current middle school networks. This upgrade was possible because the WAN project came in substantially under budget. New switches were purchased and installed over the summer, upgrading the elementary schools to a 1 Gbit backbone

network. This improved the overall network performance in the buildings as well as building to building communications.

- AT&T completed work on the upgraded Internet connection during the summer. This connection substantially increased the speed of our connection to the Internet when compared to previous speeds available.

Looking beyond the measures put in place in summer 2007, technology administrators recommended that the District would need to move to a more robust WAN to meet steadily increasing needs of staff and students. In addition, re-wiring the first four of the elementary schools was put on the schedule for summer 2008 due to the discovery of sub-standard network cabling that had been installed only a few years before. Several of the projects listed below were presented to the Board of Education starting in February 2008. Following the resignation of Gary Sawtelle as technology administrator and the subsequent hiring of Cao Mac, the projects were re-examined, with the final list as follows:

Priority 1:

a. Fiber WAN installation and maintenance
b. Routers/switches
c. Upgrade from SASI to PowerSchool (student information system)

Priority 2:

a. Classroom Suite 4 Software Upgrade
b. Additional computers for office use

Priority 3:

a. Secure wireless solution to all buildings
b. Back-up file storage
c. UPS Power Back-up for all servers

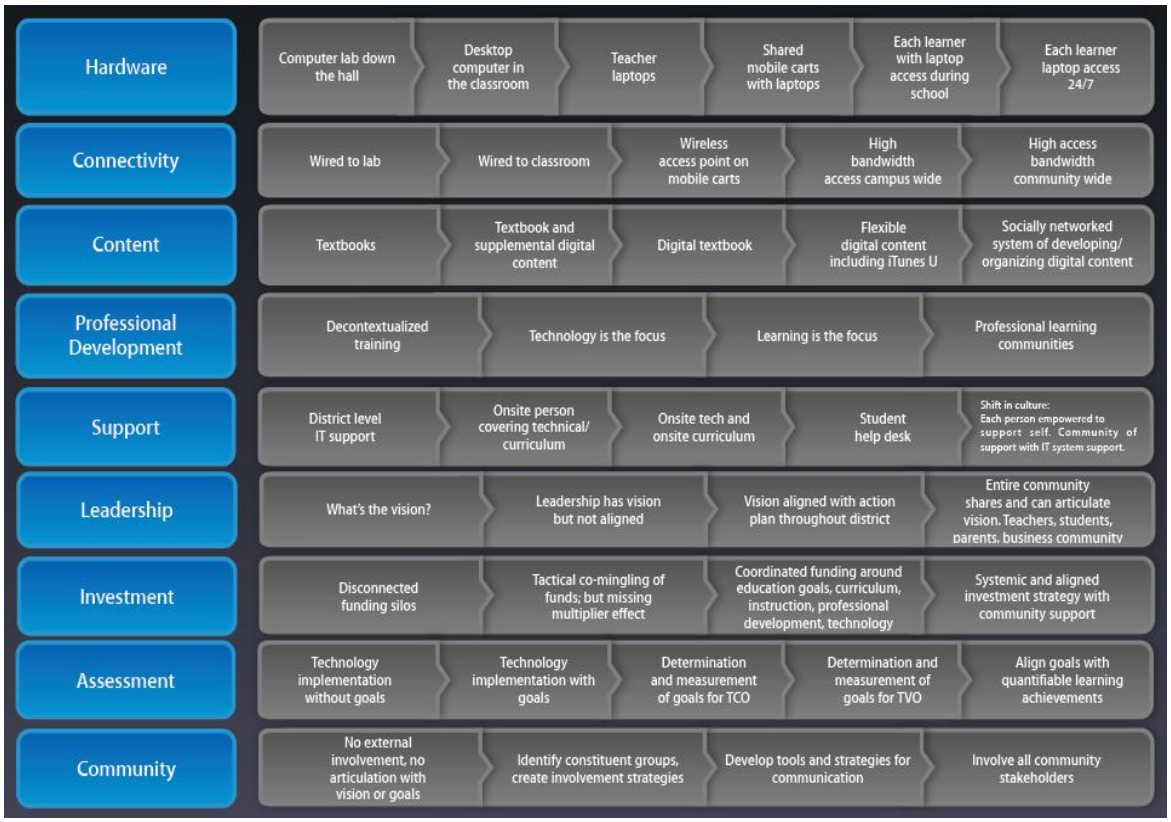
The major projects above were approved in Fall 2008 with installation scheduled for spring and summer 2009. PowerSchool training began in March 2009. Major work was still to be done in finishing the wiring upgrades at the remaining four elementary schools. Also, discussion began about completing the upgrade of the network systems in the middle schools to double capacity and speed. It was also noted that new HR and email systems must be considered soon. In addition, the District's phone system would probably need to be upgraded sometime in the near future, with a possible move to Voice over IP (VoIP).

Following delays by AT&T in installing the fiber infrastructure, the final installation of the new fiber network was completed during Fall 2009. All upgrades approved by the Board in Fall 2009 were completed, including the upgrade to the middle schools. With the completion of the middle school project, the only remaining infrastructure work to be undertaken in the near future involved the completion of network wiring at the four schools begun in summer 2008. These schools were not adequately re-worked, necessitating additional wiring replacement in either summer 2010 or summer 2011. In addition, the District completed the move to Gmail from Google, replacing Groupwise as the District's email system.

During Fall 2009, the District also began looking at options for improving the systems for Human Resources and the Business Office. Following meetings with Kirtley, system upgrades to the AS400 were presented to the Board, along with modules for updating HR functions. These operational technology upgrades were approved and will be installed in the near future.

While infrastructure upgrades have been made district-wide, instructional upgrades to staff and student computers and presentation devices such as LCD projectors have been placed on hold. The final payment on the previous computer lease is due in summer 2010, but no new computers have been available under this program for the past two years. The only additions to instructional computing have been possible due to small line items in the technology department budget, special education funding, and Title I. Because of this limited buying power over the past two years, numerous instructional computers have had to be withdrawn from service due to their inability to run the new operating systems and program software. Five years ago, the District had approximately 1,600 instructional computers available. As of today, there are only about 1,100 computers accessible by staff and students and the computer to student ratio is approximately 9 to 1 (national recommendations call for a ratio of about 3 to 1 or 2 to 1) . Teachers have an older eMac in their rooms for professional use, with labs having the newest iMacs (2 and 3 years old now). In addition, the middle schools each have 4 carts of iBooks (5 years old), each cart holding 15 iBooks. LCD projectors are generally available only as shared equipment, with many individual projectors being shared between 5 to 10 teachers. The District does not currently own any interactive whiteboards and the only ELMO document cameras are in the 6th grade science classrooms at Mann Elementary (provided by the PTO).

Planning for Systematic Technology Improvements



The above chart (courtesy of Apple Computers, Inc.) was highlighted during the first presentation on Feb. 9. Moving from left to right in each row, we can pinpoint our current position, with the goal of moving all the way to the right in each row in order to become a true 21st century district. For each of the sections to follow, appropriate rows will be detached from the main chart and used as section headers.

1. Technology Budgeting Process

In building the 5-year budget, the following components have been considered:

Hardware	Computer lab down the hall	Desktop computer in the classroom	Teacher laptops	Shared mobile carts with laptops	Each learner with laptop access during school	Each learner laptop access 24/7
	Each building has at least one lab; one additional lab being added this year at each middle school	Most rooms have only 1 older desktop	Very few teachers have District laptops; proposal is for all teachers to have a laptop in Year 1; funding from District and ARRA stimulus money	Middle schools have old carts of laptops; replacement of M.S. carts is first, with more in Year 2 for all schools	Year 2 of the proposal increases the number of laptops to 3,000, generally in grades 4-8; Grades K-3 will have access to more carts	Take-home access for students is possible in Year 2, but more likely in later years

Connectivity	Wired to lab	Wired to classroom	Wireless access point on mobile carts	High bandwidth access campus wide	High access bandwidth community wide
	Labs wired several years ago	Wiring to classrooms was updated in the past 2 years; VoIP improvements still to be made in 2011-12	Middle school carts have had Airport access; building coverage replaces these	Wireless access was added this year to all schools; additional coverage is planned in 2011-12	Not in the plan at this time

Support	District level IT support	Onsite person covering technical/ curriculum	Onsite tech and onsite curriculum	Student help desk	Shift in culture: Each person empowered to support self. Community of support with IT system support.
	Currently in place for major tasks; additional position proposed for System Admin to handle servers and network load	Technical specs are dispatched by need; 6 are currently in place	Proposal includes additional tech integrationists (3 first year, 2 second year) who can provide both technical and educational support; .5 additional teacher-leader proposed to cover staff development	Not currently in the plan; may be part of middle school technology program	Self-support is planned as part of the professional development program; peer helpers

Investment	Disconnected funding silos	Tactical co-mingling of funds, but missing multiplier effect	Coordinated funding around education goals, curriculum, instruction, professional development, technology	Systemic and aligned investment strategy with community support
	Funding was higher 10 years ago; purchases based on maintenance level	Funds from IDEA, Title I, and Title II-D have been used when available for limited purchases	Part of the current plan for professional development and integrated instructional outcomes	May be part of the planning for future funding, such as a District referendum

Assessment	Technology implementation without goals	Technology implementation with goals	Determination and measurement of goals for TCO	Determination and measurement of goals for TVO	Align goals with quantifiable learning achievements
	Computers have generally just been disbursed without educational goals	Title I, Title II-D, and IDEA computers have tied to specific uses and goals	Part of the current planning process for annual progress assessments	Part of the planned assessment program in Years 2-5; District's State Plan covers benefits to instructional settings	Part of the current planning for professional development beginning in summer 2010

In order to place technology acquisitions, support, and training back on a regular annual cycle, meetings have been held between Cao Mac, Therese O'Neill, and Kevin Anderson to establish both annual maintenance line items and yearly requests for additional equipment, support, and professional development. The budget outline below shows the breakdown for operational and instructional technology requests over the period of 2009 – 2015. Instructional computer costs are based on quotes from Apple.

Year	Area	Type of Work	Annual Cost	Total Annual Cost
2009-2010	**Operational**	CIMS Employee Portal	$4,425	
		Training & Installation	$1,800	
		Business Intelligence Tool-Training & Installation	$2,400	
		CIMS Interface-Sub-Tracking System	$8,000	
		CIMS-Human Resource Module	$5,184	
		Training & Installation	$9,900	
		KTC Professional Development Program	$3,000	
		Employee Photos	$500	
		Spreadsheet Conversion	$3,000	
		SASI Information Conversion into CIMS-HMS	$1,000	
		iSeries Upgrade	$24,805	
		Installation & Conversion	$2,000	
		Applitrack Interface	$3,000	
		Hardware (PC Console & PC Server)	$5,000	
		Data Entry into Position Control	$7,000	
		KTC Fee System for PowerSchool/CIMS	$10,000	
		Training & Installation	$2,400	
		Current CIMS Support	$12,584	
		Sub-Total		**$105,998**
	Instructional	LOTI Survey	NC	
		LCD Inventory	NC	
		Network Assessment (Access Points)	NC	
		MS-Lab Upgrade (Wiring, Computers & Furniture	$72,000	
		Creation of Technology Plan	NC	
		Board Acceptance of Tech Plan & Commitment of Financial Resource Plan	NC	
		Sub-Total		**$72,000**
		2009-10 Grand Total		**$177,998**
		[Current year already in budget]		
2010-2011	**Operational**	CIMS Employee Portal	$675	
		Business Intelligence Tool-Training & Installation	$900	
		CIMS Interface-Sub-Tracking System	$1,440	
		CIMS-Human Resource Module	$3,888	
		KTC Professional Development Program	$450	
		Employee Photos	$75	

		On-going Professional Development	$4,000	
		iSeries Upgrade	$2,550	
		Applitrack Interface	$500	
		KTC Fee System for PowerSchool/CIMS	$1,500	
		Current CIMS Support	$12,584	
		Development of District website	**	
		Sub-Total		**$28,562**
	Instructional	Laptop Lease - 410 Teacher Laptops	$167,007	
		Laptop Purchase - 90 Teacher Laptops – IDEA ARRA funds	$109,980	
		Professional Development Sessions (summer and school year sessions – all teachers)	$100,000	
		Summer Teacher Pay for PD	$40,000	
		Substitute Cost - 7 school year sessions	$47,040	
		LCD purchases - General Education (90)	$72,000	
		LCD purchases - Special Education (60)-ARRA	$48,000	
		Replace Middle School Laptop Carts	$199,620	
		System Administrator (Salary & Benefits)	$70,000	
		Increase Teacher Leader from .5 to 1.0	$30,000	
		Introduce 3 Tech Integration Specialists	$150,000	
		12 IEP Stations - ARRA	$24,000	
		Hand-Held Devices (PE, RTI)	$15,000	
		Review of student tech fees	NC	
		Sub-Total		**$1,072,647**
		2010-11 Grand Total		**$1,101,209**
2011-2012	**Operational**	CIMS Employee Portal	$675	
		Business Intelligence Tool-Training & Installation	$900	
		CIMS Interface-Sub-Tracking System	$1,440	
		CIMS-Human Resource Module	$3,888	
		KTC Professional Development Program	$450	
		Employee Photos	$75	
		On-going Professional Development	$4,000	
		iSeries Upgrade	$2,550	
		Applitrack Interface	$500	
		KTC Fee System for PowerSchool/CIMS	$1,500	
		Current CIMS Support	$12,584	
		Assess Storage Area Network		
		Sub-Total		**$28,562**
	Instructional	VoIP Cabling Work	$500,000	
		Professional Development (same as 2010-11)	$100,000	
		Summer Teacher Pay for PD	$30,000	
		Substitute Cost – 7 school year sessions	$47,040	
		Laptop Lease – 410 Teacher	$167,007	

		Laptops		
		Laptop Carts – 3000 Students – Lease	$1,000,000	
		LCD Projectors/carts	$80,000	
		Add: 2 Tech Integration Specialists	$100,000	
		Assess iMac Lab Computers	NC	
		Assess Hand-Held Devices	NC	
		Revenue from student tech fees*	TBD	
		Sub-Total		**$2,024,047**
		2011-12 Grand Total		**$2,052,609**
2012-2013	**Operational**	CIMS Employee Portal	$675	
		Business Intelligence Tool-Training & Installation	$900	
		CIMS Interface-Sub-Tracking System	$1,440	
		CIMS-Human Resource Module	$3,888	
		KTC Professional Development Program	$450	
		Employee Photos	$75	
		On-going Professional Development	$4,000	
		iSeries Upgrade	$2,550	
		Applitrack Interface	$500	
		KTC Fee System for PowerSchool/CIMS	$1,500	
		Current CIMS Support	$12,584	
		Refresh Storage Area Network	$75,000	
		Sub-Total		**$103,562**
	Instructional	Laptop Lease – 410 Teacher Laptops	$167,007	
		Laptop Carts – 3000 students – Lease	$1,000,000	
		LCD Projectors/carts	$80,000	
		Professional Development	$100,000	
		Summer Teacher Pay for PD	$30,000	
		Substitute Cost (1/2 of prior year)	$25,000	
		Implement VoIP System (phones)	$220,350	
		iMac Lab Replacements	$504,000	
		Implement Hand-Held Assessments	$75,000	
		Revenue from student tech fees*	TBD	
		Sub-Total		**$2,126,357**
		2012-13 Grand Total		**$2,229,919**
2013-2014	**Operational**	CIMS Employee Portal	$675	
		Business Intelligence Tool-Training & Installation	$900	
		CIMS Interface-Sub-Tracking System	$1,440	
		CIMS-Human Resource Module	$3,888	
		KTC Professional Development Program	$450	
		Employee Photos	$75	
		On-going Professional Development	$4,000	
		iSeries Upgrade	$2,550	
		Applitrack Interface	$500	
		KTC Fee System for PowerSchool/CIMS	$1,500	
		Current CIMS Support	$12,584	

		Sub-Total		**$28,562**
	Instructional	Refresh 500 Teacher Laptops	$203,667	
		Laptop Carts – 3000 Students – Lease	$1,000,000	
		Professional Development	$65,000	
		Summer Teacher Pay for PD	$20,000	
		Substitutes	$25,000	
		Reassess Hand-Held Needs	NC	
		Reassess Fiber Needs & Contract	NC	
		Revenue from student tech fees*	TBD	
		Sub-Total		**$1,313,667**
		2013-14 Grand Total		**$1,342,229**
2014-2015	**Operational**	CIMS Employee Portal	$675	
		Business Intelligence Tool-Training & Installation	$900	
		CIMS Interface-Sub-Tracking System	$1,440	
		CIMS-Human Resource Module	$3,888	
		KTC Professional Development Program	$450	
		Employee Photos	$75	
		On-going Professional Development	$4,000	
		iSeries Upgrade	$2,550	
		Applitrack Interface	$500	
		KTC Fee System for PowerSchool/CIMS	$1,500	
		Current CIMS Support	$12,584	
		Sub-Total		**$28,562**
	Instructional	Refresh Laptop Carts – 3000 Students –Lease	$1,000,000	
		Laptop Lease – 500 Teacher Laptops	$127,333	
		Professional Development	65,000	
		Summer Teacher Pay for PD	$20,000	
		Substitutes	$25,000	
		Implement New Infrastructure	$200,000	
		Revenue from student tech fees*	TBD	
		Sub-Total		**$1,437,333**
		2014-15 Grand Total		**$1,475,895**
		5 Year Tech Plan Grand Total (2010 - 2015)		**$8,191,861**

(Cost estimates for computers based on most expensive vendor platform considered. Costs for teacher laptops and student devices/carts may be less.)
(NC – No Cost anticipated)
(* Student tech fees dependent on Board approval of fees.)
(** Development of new District website through the Communications Office.)

Year-by-Year Highlights

2009 – 2010:

1. Operational technology additions for HR and Finance already approved:

CIMS Employee Portal
Business Intelligence Tool-Training & Installation
CIMS Interface-Sub-Tracking System
CIMS-Human Resource Module
KTC Professional Development Program
Employee Photos
On-going Professional Development
iSeries Upgrade
Applitrack Interface
KTC Fee System for PowerSchool/CIMS
Current CIMS Support
(See Attachment 3)

2. Additional labs at the middle schools to replace the aging CMT labs with 30-station technology literacy labs for the 6th grade WHEEL and 7th-8th grade tech electives.

2010 – 2011:

1. Operational technology budget becomes an annual maintenance budget.
2. Purchase of laptops for all teachers to replace the eMacs. Funding from general District funds and IDEA ARRA funds.
3. Purchase of 90 LCD projectors and carts to double the number of projectors available in the District. Funding from general funds and IDEA ARRA funds.
4. Implementation of intensive Professional Development program, beginning in summer 2010 and continuing throughout Years 1, 2, and 3.
5. Replacement of laptop carts at the two middle schools, increasing the number of laptops to at least 120 per school from the current 60 per school.
6. Addition of 12 IEP meeting stations for teacher-parents meetings. Funding from IDEA ARRA funds.
7. Addition of a System Administrator in the Technology Department (Attachment 4).
8. Addition of 3 Technology Integrationists to provide support for integrating technology into daily teaching - 2 at the elementary level and 1 in the middle schools (Attachment 5).
9. Increase of .5 position for a teacher-leader in technology, raising the total number from 2.5 to 3 FTE.
10. Assessment of technology proficiencies of staff and students.
11. Review of student fees, with the possible addition of technology fees.
12. New District website developed with the addition of a District webmaster.

2011 – 2012:

1. Cabling work to finish preparations for switch to VoIP phone system.
2. Addition of 3,000 student laptops/carts to increase accessibility to technology systems for students.
3. Addition of another 90 projection systems. Type of systems dependent on innovations in interactive projectors available.
4. Addition of final 2 Technology Integrationists to bring total number to 5 (4 elementary level and 1 middle school level).
5. Continuation of Professional Development program for all teachers.
6. Assessment of technology proficiencies of staff and students.
7. Possible addition of student technology fees.

2012 – 2013:

1. Operational refresh of network storage (servers and other storage).
2. Replacement of lab computers (Price based on direct replacement which may not be necessary in 2 years due to increased student access to laptops.).
3. Purchase of handsets and other equipment for VoIP implementation.
4. Expansion of the number of hand-held devices for assessment and teaching.
5. Assessment of technology proficiencies of staff and students.

2013 – 2014:

1. Refresh of laptops for all teachers. Lease price dependent on types of laptops available in 3 years. Unless other funding becomes available, entire cost to come from District budget.
2. Assessment of fiber infrastructure and contract.
3. Assessment of technology proficiencies of staff and students.
4. Begin overall review of the Technology Plan.

2014 – 2015:

1. Refresh of student laptops/carts.
2. Updating and/or expansion of network infrastructure.
3. Assessment of technology proficiencies of staff and students.
4. Prepare new 5-year Technology Plan for implementation in fall 2015.

[Special note: Printers are not noted in this upgrade plan since they are currently covered under the existing technology budget. Proposals from OCE and COTG are currently being reviewed following a District assessment of printing needs.]

Voice over Internet Protocol (VoIP) Phones

As part of the plan in the 2011 – 2012 school year, money is earmarked for upgrading wiring and cabling for VoIP phone service, with upgrade work to be carried out in 4 elementary schools and the middle schools (the other 4 elementary schools are ready for VoIP now). Planning for such a move will need to be made during the upcoming school year (2010 – 2011).

Currently the District is under contract with AT&T for our phone services and this contract expires in 2012. It is divided in 3 parts and we are paying each separately.

1. For 330 Centrex lines - $8000 a month.

2. For outbound calls - Call Package rated at roughly $1500 a month.

3. For long distance calls - Requires the District to use at least $500 a month on this type of calls or else we are subjected to surcharges.

At these costs, the District can have a new VoIP phone system that pays for itself in 5 years or less. Savings will be dependent on the deployment strategy for where phones should be placed and how many should be activated.

The major benefits of VoIP include:

- Having VoIP allows the District to leverage the current infrastructure to provide voice communication from anywhere in the district in any location.
- Allowing the District to unify the communications to staff members.
- Broadcasting communication across the district more easily and in different formats (i.e. voice recording, video recording, picture messages, etc.).
- Accessing VoIP communication from colleagues and parents will be possible from any location with Internet connectivity.

Teacher Laptops: Comparison of Products

Based on information provided by Apple, DELL, and IBM, the following table outlines the major elements of comparison for the selection of new laptops for the teaching staff.

	Apple Notebook	Dell Notebook	IBM Notebook
Laptop Model:	13.3 inch MacBook	15.4 inch Dell E6500	15 inch R500
Picture:			
Processor:	2.26 Gigahertz 3MB cache Core 2 Duo	2.53 Gigahertz 3MB cache Core 2 Duo	2.53 Gigahertz 3 MB Core 2 Duo
Memory:	2 Gigabyte DDR3 SDRAM	3 Gigabytes DDR3 SDRAM	2 Gigabyte DDR3 (1067MHz) SDRAM
Hard Disk:	250 Gigabyte SATA Hard Drive	160 Gigabyte SATA Hard Drive	320 Gigabyte SATA Hard Drive
Screen:	13.3 inch LED-backlight LCD Display (1280x800)	15.4 inch WXGA LED/LCD Display (1280x800)	15.4 inch LED-backlight LCD Display (1440x900)
Video Card:	NVidia GeForce 9400M	Intel Graphics Media Accelerator 4500MHD	Intel Graphics Media Accelerator 4500 MHD
Optical Drive:	8x Dual Layer SuperDrive	8x Dual Layer DVD±RW / CD-RW Drive	8x Dual Layer DVD±RW / CD-RW Drive
Communications:	Gigabit Ethernet, AirPort Extreme wireless and Bluetooth (*no modem)	10/100/1000 Ethernet Card, 802.11n wireless card, Bluetooth 2.0)	10/100/1000 Ethernet Card, 802.11n wireless card)
Physical Dimensions:	13.00" W x 9.12 " D x 1.08" H, 4.7 lbs	14.1 " W x 10.1 " D x .1.3" H, 5.2 lbs	14.1" W x 10.2 " D x 1.4" H, 6.6 lbs
Operating System:	Mac OS X v.10.6 (Snow Leopard)	Windows 7 Pro (32-bit)	Windows 7 Pro (32-bit)
Office Software:	None. (Office 2008 is available through WISC for $72 per laptop.)	Microsoft Works 9	None
Price:	$899	$800	$749
Warranty:	1 Year Parts and Labor (3-yrs Upgrade :$183)	3 Years Parts and Labor, Complete Care accidental damage protection	1 Year Parts and Labor
Professional Development Support	3-year contract of $297,000 (equal to15 week-long sessions per year; 16 people per class)	Cost comparable or less for outside trainers, inside trainers, materials, and teacher stipends	No estimate provided

All Apple systems include a standard 1-year parts and labor warranty, iLife '09 (which includes iPhoto, iMovie, iDVD, iWeb, iTunes and GarageBand), Mail.app, iCal and Address Book.

As part of the process to consider which platform to purchase for this plan, the Digital Leaders were surveyed to determine the essential qualities that must be present in any teacher or student laptop purchased. These comments are summarized below:

1. What features do you need in a computer for students?
    a. easy to navigate
    b. allows for ease of use by all students
    c. portable and reliable
    d. able to network with other devices
    e. may be used for collaborative and inquiry learning experiences
    f. allows for individual creativity
    g. allows of meeting individual learning needs
    h. permits access outside of the classroom or at home
    i. supports software that allows interaction of students within a class
    j. fast enough to allow reasonable access and response time

2. What do you need in a teaching machine?
    a. speed and accessibility for professional learning across the schools
    b. power to handle real-life experiences and simulations
    c. ability to link with other technology devices such as an interactive whiteboard or a student response system
    d. allows use at school and at home
    e. ease of maintenance and use
    f. access to productivity software and websites
    g. ease of connection to printers and projectors
    h. familiar full-featured operating system

In addition to these comments, teachers at Education Council, the elementary reading committee, and various other meetings stressed that teachers and students need to have the same type of computers and operating systems to avoid complications. Since the District has used Macintosh computers for several years, staying with this platform would necessitate purchasing MacBooks for students, too, since Apple does not have a student/netbook model available. The other option would be to switch platforms and purchase PC/Windows computers for teachers and students. The iMacs currently in the labs are capable of running Windows software, as are the Title I Macbooks purchased earlier this year. Maintaining one standard operating system for instructional computers would simplify image-creation each year and trouble-shooting when problems arise. Some dual system support would be necessary, however, for those teachers whose students require another system do to specific learning requirements.

When asked about preferences for a platform, the majority response has been to pick a common system and provide intensive staff development. As shown in Attachment 2, over 65% of teachers have a Windows computer at home and are comfortable with it. In addition, the principals and Central Office administrators have all been using DELL laptops running Windows XP Professional for the past year. Office secretaries also currently use the DELL desktop machines with Windows XP. *Therefore, based on the prices available at this time and the additional costs for software and 3-year support, it*

would be most fiscally responsible to switch to DELL computers and Windows 7 for the duration of this plan.

As part of this conversion, several pieces of software will need to be reinstalled or replaced. Our Classroom Suite 4 installation can be done to accommodate Windows. Recent licenses for Pixie2 and Inspiration will need to be switched from the Mac platform to the Windows system. Since we have already paid for the licenses, this is allowed by the companies. We currently own licenses for Microsoft Office, so this switch can also be made. Some special education software may need to be replaced, but most is already dual platform. Also, the Sibellius music software will need to be upgraded. Files created for specific programs may need to have some re-creation, but most of the files can be read by either system. In the long run, however, we are trying to move toward more cloud computing using web-based software and applications. This should help our conversion process.

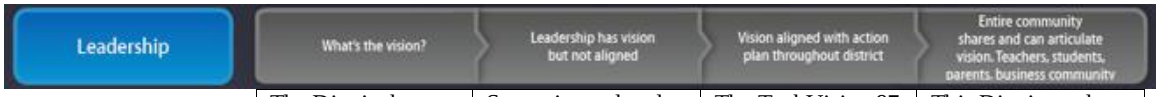
Several policies will also need to be considered as part of this plan. We are in need of a Children's Internet Protection Act (CIPA) policy in order to have the State approve our ePlan this year. In addition, we will need to consider a broader look at the use of video clips and streaming video in use in classrooms. These videos do not routinely carry labels indicating age-appropriateness, so we will need to have wording outlining best practice in using such resources. Finally, the recent publicity around the use of built-in laptop cameras for surveillance of students and/or staff may cause us to examine the need for a policy around the use of the cameras for eavesdropping on users.

Professional Development

The topic strands below give a first look at how the District is doing in regard to planning for intensive professional development for all staff members.

Texts are still purchased for at-home use	Recent adoptions of math, science, and language arts are using online materials	No digital texts have yet been totally adopted to replace printed materials	Development of flexible digital content will come through staff development	This is the ultimate goal, but likely beyond the scope of this 5-year plan

U97 classes are offered often based on the presenters' skills rather than the topical need	Many tech classes and workshops are held on digital tools, but attendance is voluntary and numbers are low	The goal of this plan is integrating technology tools into daily instruction to encourage collaboration, creativity, and innovation while raising student achievement	Professional learning communities (PLC) have not yet been studied or suggested as a focus in the District



The District has a current Strategic Plan in place	Strategies and end results relating to technology deal with the availability and access to technology in a broad sense	The TechVision 97 mission and goals lay the groundwork for student and staff access to technology	This District and Community vision will need to be developed as recommendations for 1 to 1 student access are developed

Community has been involved through the Strategic Plan and TechVision 97	Involvement strategies need to be developed as the plan is put in place	New website is being developed during Year 1 of the plan	Discussion of 1 to 1 initiatives will need to involve community stakeholders

As part of the move toward more focused, intensive professional development aimed at integrating 21st century learning tools into daily instruction, the opinions of students and educators have been solicited. Responses from students in technology classes as Brooks and Julian are below. These tables show responses by grade level, but gender analysis is also available.

4. What types of technology do you use at home for homework and other school assignments? Choose all that apply.

	What is your grade level?			
	6	7	8	Response Totals
Cell phone (without Internet access)	0.0% (0)	43.3% (39)	35.9% (28)	39.9% (67)
Smart phone (with Internet access, such as Blackberry, iPhone, Droid)	0.0% (0)	15.6% (14)	19.2% (15)	17.3% (29)
Desktop computer	0.0% (0)	**70.0% (63)**	**74.4% (58)**	**72.0% (121)**
Laptop or tablet computer	0.0% (0)	68.9% (62)	56.4% (44)	63.1% (106)
Netbook or mini-notebook computer	0.0% (0)	10.0% (9)	6.4% (5)	8.3% (14)
Digital reader (such as Kindle, Sony Digital Reader)	0.0% (0)	5.6% (5)	5.1% (4)	5.4% (9)
Music or video device (such as mp3 player or iPod)	0.0% (0)	54.4% (49)	50.0% (39)	52.4% (88)
Handheld digital video camera	0.0% (0)	25.6% (23)	25.6% (20)	25.6% (43)
Video gaming system (such as xBox, Playstation, Wii)	0.0% (0)	34.4% (31)	35.9% (28)	35.1% (59)
Handheld game system (such as GameBoy)	0.0% (0)	20.0% (18)	15.4% (12)	17.9% (30)
Other (please specify)	0 replies (0.0%)	4 replies (4.4%)	6 replies (7.7%)	6.0% (10)
answered question	0	90	78	**168**
			skipped question	**1**

Girls are more likely to report using laptops, cell phones, music or video devices, and digital video cameras. Boys are more likely to use a video gaming system. (Information from a sort by gender not included in the table above.)

5. In what ways do you use technology at home for homework or other schoolwork? Choose all that apply.

	What is your grade level?			
	6	7	8	Response Totals
Access class information (such as grades, teacher blogs)	0.0% (0)	**80.2% (73)**	74.4% (58)	**77.5% (131)**
Communicate with other students	0.0% (0)	62.6% (57)	66.7% (52)	64.5% (109)
Communicate with teachers	0.0% (0)	28.6% (26)	34.6% (27)	31.4% (53)
Complete writing assignments	0.0% (0)	70.3% (64)	**75.6% (59)**	72.8% (123)
Conduct research	0.0% (0)	68.1% (62)	73.1% (57)	70.4% (119)
Conduct virtual experiments or simulations	0.0% (0)	6.6% (6)	6.4% (5)	6.5% (11)
Create slide shows, videos, or web pages for an assignment	0.0% (0)	46.2% (42)	51.3% (40)	48.5% (82)
Get help from an online tutor	0.0% (0)	2.2% (2)	1.3% (1)	1.8% (3)
Listen to a podcast for class	0.0% (0)	1.1% (1)	5.1% (4)	3.0% (5)
Participate in online communities	0.0% (0)	6.6% (6)	10.3% (8)	8.3% (14)
Participate in videoconferences	0.0% (0)	1.1% (1)	3.8% (3)	2.4% (4)
Participate in 3D virtual worlds (like SecondLife or Whyville)	0.0% (0)	5.5% (5)	2.6% (2)	4.1% (7)
Play educational games	0.0% (0)	17.6% (16)	17.9% (14)	17.8% (30)
Post to blogs or wikis	0.0% (0)	15.4% (14)	25.6% (20)	20.1% (34)
Take an online course	0.0% (0)	4.4% (4)	6.4% (5)	5.3% (9)
Take quizzes or tests online	0.0% (0)	37.4% (34)	25.6% (20)	32.0% (54)
Turn in papers for plagiarism check	0.0% (0)	2.2% (2)	3.8% (3)	3.0% (5)
Twitter or post to a microblog	0.0% (0)	5.5% (5)	7.7% (6)	6.5% (11)
Upload assignments and homework to a class portal	0.0% (0)	12.1% (11)	12.8% (10)	12.4% (21)
Use a social networking site (like Facebook or MySpace) to collaborate with classmates on a project	0.0% (0)	48.4% (44)	44.9% (35)	46.7% (79)
Use online textbooks or other online curriculum	0.0% (0)	31.9% (29)	28.2% (22)	30.2% (51)
Work on projects with students in other locations	0.0% (0)	20.9% (19)	15.4% (12)	18.3% (31)
None of the above	0.0% (0)	2.2% (2)	10.3% (8)	5.9% (10)
answered question	0	91	78	**169**
			skipped question	**0**

Accessing class information was the most frequent response for 7th graders, but completing writing assignments was the most frequent for 8th graders. In fact eighth graders were more likely to engage in all of these uses than 7th graders, except for accessing class information.

Girls are much more likely than boys to use technology to access class information, communicate with other students, complete writing assignments, conduct research, use social networking sites, and create multimedia projects.

6. How could your school make it easier for you to use technology for schoolwork? Choose all that apply.

	What is your grade level?			
	6	7	8	Response Totals
Let me use a laptop or netbook computer	0.0% (0)	75.0% (66)	71.8% (56)	73.5% (122)
Let me use a cell phone, smart phone, or mp3 player	0.0% (0)	52.3% (46)	60.3% (47)	56.0% (93)
Let me access the school network from my own computer	0.0% (0)	52.3% (46)	56.4% (44)	54.2% (90)
Provide access to social networking sites	0.0% (0)	28.4% (25)	37.2% (29)	32.5% (54)
Let me access software applications from any computer at home or school	0.0% (0)	33.0% (29)	34.6% (27)	33.7% (56)
Let me access school projects from any computer at home or at school	0.0% (0)	45.5% (40)	55.1% (43)	50.0% (83)
Provide tools for me to organize my schoolwork	0.0% (0)	40.9% (36)	38.5% (30)	39.8% (66)
Provide tools for me to communicate with my classmates	0.0% (0)	44.3% (39)	35.9% (28)	40.4% (67)
Provide tools for me to communicate with my teacher (s)	0.0% (0)	25.0% (22)	32.1% (25)	28.3% (47)
Provide me with Internet access anywhere in the school	0.0% (0)	54.5% (48)	53.8% (42)	54.2% (90)
Provide more electrical outlets for recharging devices	0.0% (0)	27.3% (24)	30.8% (24)	28.9% (48)
NONE OF THE ABOVE	0.0% (0)	4.5% (4)	3.8% (3)	4.2% (7)
Other (please specify)	0 replies (0.0%)	7 replies (8.0%)	3 replies (3.8%)	6.0% (10)
answered question	0	88	78	166
			skipped question	3

More than boys, girls want access to school projects from anywhere, tools for organization, and tools to communicate with classmates. More than girls, boys want to be able to access the network with their own computers, use cell phones and mp3 players, have Internet access anywhere in school, and have tools to communicate with teachers.

7. What kinds of technology do you think teachers should be using while they teach?

	What is your grade level?			
	6	7	8	Response Totals
Computer	0.0% (0)	27.3% (24)	24.7% (19)	26.1% (43)
Projector	0.0% (0)	**28.4% (25)**	**32.5% (25)**	**30.3% (50)**
Interactive whiteboard	0.0% (0)	22.7% (20)	20.8% (16)	21.8% (36)
Student response system	0.0% (0)	5.7% (5)	2.6% (2)	4.2% (7)
Cell phone or smart phone	0.0% (0)	6.8% (6)	2.6% (2)	4.8% (8)
Document camera	0.0% (0)	1.1% (1)	0.0% (0)	0.6% (1)
Digital camera	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Video camera	0.0% (0)	4.5% (4)	7.8% (6)	6.1% (10)
Other (please specify)	0 replies (0.0%)	3 replies (3.4%)	7 replies (9.1%)	6.1% (10)
answered question	0	88	77	165
			skipped question	4

Girls see more value to interactive whiteboards than do boys. Boys place greater value on the computer and projector.

8. Imagine that you could design the ultimate school. Which of these tools would have the greatest positive impact on your learning? Choose all that apply.

	What is your grade level?			
	6	7	8	Response Totals
Collaboration tools (such as blogs, social networking sites, wikis, and bookmarking)	0.0% (0)	55.2% (48)	56.4% (44)	55.8% (92)
Communication tools (such as email, IM, or text messaging)	0.0% (0)	**66.7% (58)**	**64.1% (50)**	**65.5% (108)**
Computer projection devices	0.0% (0)	54.0% (47)	53.8% (42)	53.9% (89)
Digital media tools (video, audio)	0.0% (0)	55.2% (48)	52.6% (41)	53.9% (89)
Digital reader (such as Kindle, Sony Digital Reader)	0.0% (0)	39.1% (34)	34.6% (27)	37.0% (61)
Digital resources (such as databases, electronic books, animations, videos)	0.0% (0)	39.1% (34)	35.9% (28)	37.6% (62)
Document camera	0.0% (0)	27.6% (24)	25.6% (20)	26.7% (44)
Electronic portfolios for students	0.0% (0)	40.2% (35)	43.6% (34)	41.8% (69)
Games or virtual simulations	0.0% (0)	**66.7% (58)**	52.6% (41)	60.0% (99)
Handheld digital video camera	0.0% (0)	32.2% (28)	33.3% (26)	32.7% (54)
High tech instruments for science	0.0% (0)	51.7% (45)	44.9% (35)	48.5% (80)
Interactive whiteboards	0.0% (0)	52.9% (46)	47.4% (37)	50.3% (83)
Mobile computer for every student (such as laptop or netbook computer)	0.0% (0)	60.9% (53)	55.1% (43)	58.2% (96)
Learning management system (such as Blackboard, Moodle, Angel)	0.0% (0)	23.0% (20)	23.1% (18)	23.0% (38)
Mobile devices (such as cell phones, mp3 players)	0.0% (0)	42.5% (37)	35.9% (28)	39.4% (65)
Online classes	0.0% (0)	54.0% (47)	44.9% (35)	49.7% (82)
Online textbooks	0.0% (0)	63.2% (55)	38.5% (30)	51.5% (85)
School website or portal	0.0% (0)	34.5% (30)	37.2% (29)	35.8% (59)
Tools to help me organize my work (such as organize my assignments, take notes, organize my ideas)	0.0% (0)	34.5% (30)	35.9% (28)	35.2% (58)
Ability to access the Internet anywhere at school	0.0% (0)	51.7% (45)	50.0% (39)	50.9% (84)
Video conferences and webinars	0.0% (0)	27.6% (24)	25.6% (20)	26.7% (44)
Virtual or online whiteboard	0.0% (0)	37.9% (33)	38.5% (30)	38.2% (63)
Webcam	0.0% (0)	52.9% (46)	43.6% (34)	48.5% (80)
Wireless microphone system for teacher	0.0% (0)	35.6% (31)	32.1% (25)	33.9% (56)
Other (please specify)	0 replies (0.0%)	1 reply (1.1%)	5 replies (6.4%)	3.6% (6)
answered question	0	87	78	165
			skipped question	4

7th graders were more likely than 8th graders to mention the use of games or simulations. They also placed more value on online textbooks, webcams, digital readers, science instruments, interactive whiteboards, and a computer for every student. Communication tools are the top choice among girls, while games and simulations top the list for boys. Collaboration tools, online classes, and electronic portfolios are also of greater interest to girls, while boys are more interested in high tech science instruments and digital readers. Other tools surveyed include:

Electronic portfolios for students
Mobile devices
Virtual or online whiteboard
Digital resources (databases, electronic books, animations, videos)
Digital reader
School website or portal
Tools to help organize work
Wireless microphone system for teacher
Handheld digital video camera
Document camera
Video conferences and webinars

The LoTi survey of Teachers

It is clear that teaching students in the same way we learned, using the same tools, is not the best way to help them become successful 21st century learners. The focus of teaching needs to change from the delivery of content, with the teacher as the primary source, to the creation of a cooperative, collaborative environment in which students become the agents of their own learning with guidance from the teacher. Today's digital tools and resources can contribute to this change, but teachers will need a great deal of support in their efforts to change their teaching and use technology in the most effective ways.

As we plan for the proposed sweeping changes in the way we use technology to teach and learn, it is important to understand where our teachers are now. This will allow us to plan appropriate staff development and to set realistic goals for improvement.

To gain input to this process, we recently asked our teachers to participate in a survey of teaching practices and technology use. The survey we chose is based on the Levels of Teaching Innovation (LoTi) framework. First developed in 1994, this research-based framework focuses attention on the attitudes and practices that are associated with successful 21st century education. It is an accepted means of measuring how well teachers are implementing the practices associated with digital literacy that have been identified in the National Educational Technology Standards for Teachers (NETS-T, see Appendix A in the accompanying Attachment 1) outline by the International Society for Technology in Education (and adopted by Illinois as its own standards for teacher technology use). The LoTi survey, which is available free to all public school educators in the country, focuses on what teachers are doing in their classrooms to promote higher order thinking, engaged student learning, and authentic assessment practices.

Almost 250 teachers responded to the survey, which takes about 15 minutes to complete. In addition to a comprehensive district-wide report of the findings, complete with realistic goals and professional development recommendations, the LoTi site produces a personalized report for each participant describing current practices and suggesting

professional development topics. Only staff members who deliver instruction to students were asked to respond; teachers retiring this year were excused. The results of this survey are reported here and are supplemented by the results from our own internal Staff Technology Survey that was administered in January 2009 (Attachment 2). The latter survey focused more closely on specific technology skills in teaching.

The LoTi survey results indicate that our teachers cluster toward the lower end of the LoTi scale (see Appendix B in Attachment 1), with a median score of 2. Level 2, described as Exploration, is characterized by instruction that emphasizes content understanding, with teacher-questioning and student-learning taking place primarily at the knowledge and comprehension levels. Digital tools and resources are used by students primarily as enrichment or extension activities, or to gather information about current content at the knowledge or comprehension level. Students use digital tools to demonstrate their understanding of content.

The results of our internal survey support this summary of current practices. When asked to identify ways in which the availability of technology has changed their teaching practices, only three practices were mentioned by at least half of the teachers:

- I use technology to prepare materials (hand-outs and tests) for my students (83%)
- I integrate a greater variety of subjects/content into each of my lessons (55%)
- I use technology to integrate standards into my curriculum (52%)

Asked how technology has changed the teaching environment, the only practice noted by more than half the respondents was students using a variety of resources for their projects (53%) and student projects involving visuals (51%).

Using the LoTi results, researchers from the LoTi Institute have found that teachers may grow one or two levels in a year depending on the types of training provided, the frequency of the training, and the motivation of the trainee. Therefore, with the professional development goal of moving everyone up at least one level during the course of a year, it is clear to see that we need to sustain professional development efforts over the course of several years. Quick, one-shot training will likely provide no increases in teacher proficiency at integrating technology into effective teaching. Also, lack of access to the tools required for increases in technology integration will definitely slow down progress.

Results from the 2009 Teacher Technology Survey

There is currently no technology proficiency requirement for teachers or administrators. Staff development related to technology integration is voluntary. We offer a number of technology-based workshops to teachers through our internal staff development arm, known as University 97. Although the number of teachers participating in these opportunities has increased slightly in recent years, the participants represent a small percentage of the teaching staff. There is little follow-up to ensure that teachers attempt to incorporate what they have learned in their classrooms.

About one-third of our staff responded to a survey of technology attitudes and practices administered in January 2009 (Attachment 2: Selected Questions). It is easy to see the effects of not having placed an explicit emphasis on technology integration: The most common ways in which our teachers are using technology are creating simple word

processing documents and conducting Internet searches. The only other skills they are employing at least a few times a month are creating documents that include graphics and simple formatting without using a template and using a digital camera. When asked how technology has changed their teaching, the most commonly identified practice is that they personally use technology more than in the past for creating classroom materials. The important changes they see to the students' learning environment are that the students have more resources available and are more creative. There is little collaborative work by students taking place using technology and much of the work takes place individually on computers at home or the library, rather than integrated in the classroom environment or a computer lab. The most commonly reported student use is Internet research, followed by differentiation activities provided by the teacher. Somewhat less than half of teachers report that their principals encourage but do not require teachers to use technology for student technology projects and learning activities, while slightly more than one-quarter report that principals leave it up to the individual teacher whether or not to incorporate technology in the student experience. They see technology's greatest value for students in providing access to resources that would otherwise not be available, helping students learn technology-based skills, learning and reinforcing content, and providing differentiation for students. They view lack of access to effective technology (not enough computers, inconvenient location, substandard equipment) and lack of time in the school day as their greatest obstacles to more use.

Professional Development Stages

The following professional development stages highlight the key areas to be addressed in the District 97 Technology Professional Development Program. Depending on the skills of participants, instruction may vary within the stages. Sessions will begin this summer.

Stage 1 – Entry – Learn the basics of using the new technology.

Core technology survival skills:

- **Ethics and security**
  - *Acceptable Use Policy*
  - *Passwords*
  - *Software Licenses*
  - *Network Security*
- **Desktop navigation**
  - *Mouse/ trackpad skills*
  - *Keyboarding Skills / Shortcuts*
  - *Open and close programs*
  - *Organizing, creating, and deleting folders*
  - *Drag and drop*
- **Network skills**
  - *Logon*
  - *Logoff*
  - *Retrieve files from network folder*
  - *Save files to network folder*
- **Basic Troubleshooting**
  - *Control-Alt-Delete*
  - *Troubleshooting Checklist*
- **E-mail**
  - *Opening Google Gmail*
  - *Retrieve and send e-mail*

Open attachments
Delete old mail
Attach a file to a message
Forward messages
Reply to messages

Basic Word-processing (MS Word or similar)

Skills:

· *New*
· *Open*
· *Close*
· *Saving and retrieving*
· *Undo*
· *Page setup (margins, paper size, layout)*
· *Entering text*
· *Cut, copy, and paste*
· *Deleting*
· *Printing*
· *Spell check/thesaurus*
· *Formatting*
· *Help*

Sample products:

· *Letters*
· *Student tests*
· *Class handouts*
· *Lesson plans*

PowerSchool – *Powergrade/PowerTeacher*

Stage 2 – Adoption – Use new technology to support traditional instruction.

The next level of core technology skills:

Troubleshooting

Reinforce previous topics
Checklist

Ethics and security

Copyrighting/Plagiarism
Responsibility
Reinforce previous topics
Intellectual Property

Internet Searches

Connecting to the Internet at school
Search Engines
NETiquette

Graphics

File formats
Clip Art
· *Import*
· *From a file*
· *From the Internet*
Digital camera
· *Taking pictures*
· *Saving pictures*
Scanner

· *Scanning a document*
· *Saving a scanned document*

LCD Projector

Connecting
Using / troubleshooting

Word-processing – Intermediate

Inserting graphics and scanned documents
Text wrap
Toolbars
Insert text box
Columns
· *Sample Documents:*
Personal letterhead
Newsletters

Spreadsheets – Beginning

Budget Requisition
· *Open*
· *Save*
· *Close*
Create your own

PowerPoint / Google Presenter

Create a slide
Create a slide show

Web Design / Blogs

Front Page Basics
Web Publishing

Stage 3 – Adaptation – Integrate new technology into traditional classroom practice. Focus on increased student productivity and engagement.

Troubleshooting

Ethics and Security

Reinforce previous topics

Student Basic Skills (Integration of Stage 1&2 topics)

Surveying
Assessing/Reassessing
Addressing needs

Modeling

Lessons via technology
Terminology
Peer Observation
Dialogue
Articulation
Brainstorming
Discussion of Practical Applications

Facilitating Experiences

Data Collection - Internet Searches
Guided Tours
Scavenger Hunts / Webquests
Multimedia Presentations
· *Power Point*
· *Flash*

· *Video Clips*

Desktop Publishing

Exploring Web Publishing

Collaboration

Team Teaching

Communication

· *E-mail*

· *Listserv*

· *Hot Lists*

· *Various Educational Web sites*

Classroom Management

Newsletters

PowerSchool

Teacher Research

Lesson Plans

Research

Availability

Collaboration

Stage 4 – Appropriation – Develop new instructional strategies and experimentation with inter-disciplinary projects, team teaching and student grouping. Emphasis is placed on collaborative learning.

Refine Student Basic Skills

Surveying

Assessing/Reassessing

Collaborative Work Patterns

Teacher Modeling

Collaborative Teaching

· *Sharing*

Lesson Plans

Activities

Class Projects

Innovative Learning Activities

· *Interdisciplinary Projects*

· *Cooperative Projects*

Presentations/Conferences

Peer Observation

Training Others

Portfolios

Publishing

Assessment/Reassessment

Student Modeling

Collaboration

· *Teacher*

· *Peers*

Portfolios

Publishing

Terminology

Novel Approaches Using Technology

Projects Integrating Data Collection

Creating Quests

Developing Multimedia Projects

Advanced Web Publishing

Expanding Daily Classroom Management

Classroom rosters and seating

E-mail collaboration

Emergency Planning

Homework Assignments

Teacher Research – Expanding Resources

Troubleshooting

Ethics/Security

Stage 5 – Invention – Create, model, and implement new uses for technology tools in the construction of student knowledge. Provide modeling, facilitating, and mentoring experiences in which staff members and students are active participants.

Staff members that achieve Stage 5 status will:

Be integral trainers and modelers of previous stages.

Facilitate the construction of student knowledge.

Promote social interaction, encouraging students to question and share their own knowledge and experiences.

Implement a curriculum integrated with technology but balanced between direct teaching and project-based teaching.

Employ a variety of student assessment activities, such as skill-based authentic assessments and the creation of both print and electronic portfolios.

Discover new uses for technology tools.

Encourage teachers and students to collaborate and model those innovations to other teachers both in and out of the district.

Present at local workshops, staff development meetings, local, state, and national conferences.

In addition to these stages of technology use and innovation, participants will gain knowledge of digital storytelling, podcasting, interactive collaboration, personalized learning, challenge-based learning, use of technology for differentiation, and classroom technology management. Workshops designed for administrators will focus on shared visioning, action planning, accountability oversight and management, and support strategies for staff. For special needs staff, training will be provided in assistive technology options, accommodations using technology tools, and planning for multi-leveled instruction.

Professional Development Scheduling

In order to provide timely professional development opportunities for the teaching and administrative staff, 2-day workshops will be scheduled for summer 2010. These workshops will be scheduled for 3 hours per day and will have no more than 20 participants per session. These sessions will focus on Stage 1 skills, as listed above, with Day 1 concentrating on receiving the new computers, learning about the hardware and the operating system, and the programs available for teacher use. Day 2 training will introduce the use of the LCD projectors, effective use of presentation tools, and techniques for engaging students with a presentation station. Following a survey

of teachers in all 10 buildings through the OPTA, over 220 teachers have indicated that they would be interested in attended a 2-day workshop this coming summer. Workshops will be scheduled on various dates and times through June, July and August so as to provide the maximum number of opportunities for teachers to attend.

For those teachers unable to attend a 2-day summer workshop, dates will be set aside during the summer for the pick-up of the new computers. These teachers will have the opportunity to attend similar workshops during the first two months of the school year to acquaint themselves with the new technology. All teachers will have received the Stage 1 training prior to the end of the 1st trimester.

Utilizing U97 and day-long workshops during the year, teachers and administrators will have the opportunity to learn more about collaborative learning, differentiated instruction through technology integration, and communication techniques. Institute Days and building staff meetings will also be used for additional training on integrating technology into the curriculum.

Workshops for principals will focus on accountability measures, including modeling techniques for teachers, observing effective uses of technology, and setting up collaborative peer groups for teachers to practice new technology skills. Principals will also expect teachers to bring their laptops to staff meetings, participate in collaborative technology discussions and online study groups, and present to their colleagues on classroom uses of the integrated technology. As part of the regular evaluation process, principals will look for and assess effective uses of technology in regard to the use of materials and resources in the classroom.

Administrative Recommendation

It is the recommendation of the District 97 Administration that the Board review the 5-year Technology Plan at the March 23 Board Meeting. It is further recommended that the Technology Plan be approved at the April 13 Board meeting in order to facilitate the order of equipment, including DELL computers for teachers and students, and the scheduling of summer professional development classes.

Constance R. Collins, Ph.D.
Superintendent of Schools

Kevin M. Anderson, Ed.D.
Assistant Superintendent for Teaching and Learning

Cao Mac
District Technology Administrator

Attachment 1

LoTi Digital-Age Profile

Organization:
Oak Park Elementary
School District #97

Participants:
245

Data Collected:
Jul 01, 2009
through
Jun 30, 2010

Introduction

ENGAGED STUDENT LEARNING

REAL-WORLD PROBLEM SOLVING

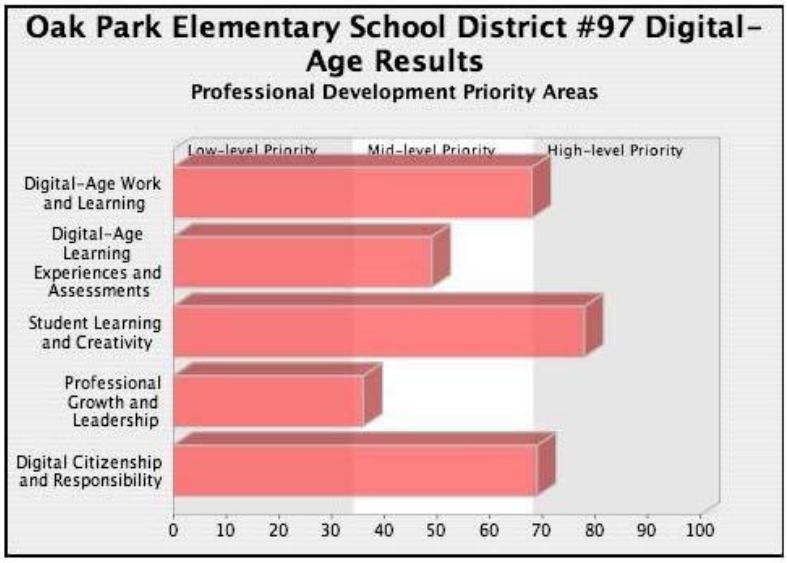
Today, LoTi as Levels of Teaching Innovation represents the transformation from didactic teaching practices and student compliant learning to digital-age teaching and learning characterized by the use of digital tools and resources to promote higher order cognitive processing, engaged student learning, and authentic, real-world problem-solving. The acronym, LoTi, is similar to other international school improvement efforts to improve student achievement and classroom pedagogy employing research-based best practices, but differs in its fundamental approach-an approach that uses digital-age literacy (e.g., learning-centered instruction, real-world problem-solving, collaborative learning environments) to achieve targeted outcomes impacting student success in the classroom.

Your organization recently conducted a digitalage profile to ascertain each participant's current level of teaching innovation using the LoTi Digital-Age Survey. This instrument measures three critical components pivotal to digital-age literacy and innovative teaching practices: LoTi (Levels of Teaching Innovation), PCU (Personal Computer Use), and CIP (Current Instructional Practices). The LoTi Digital-Age Survey focuses on teacher behaviors, perceptions, and instructional practices using digital tools and resources which collectively have the greatest impact on student achievement and success in the classroom. Such information will enable school systems to target funding sources and provide differentiated professional development opportunities directed at moving participants to a higher level of teaching innovation in the classroom, and in doing so, better prepare students for the challenges facing them in a highly competitive, Digital-Age society.

The LoTi Digital-Age Survey generated a profile for each participant in three domains: Levels of Teaching Innovation (LoTi), Personal Computer Use (PCU), and Current Instructional Practices (CIP). The Levels of Teaching Innovation (LoTi) profile approximates the degree to which each participant either supports or implements the tenets of digitalage teaching and learning in a classroom setting. The Personal Computer Use (PCU) profile addresses each participant's fluency level with digital tools and resources for student learning as well as their use in the workplace. The Current Instructional Practices (CIP) profile reveals each participant's support for or implementation of instructional practices consistent with a learner-based curriculum design (e.g., learning materials determined by the problem areas under investigation, multiple assessment strategies integrated authentically throughout the curriculum, teacher as co-learner/facilitator, focus on learnerbased questions) and research-based best practices.

The LoTi Digital-Age Survey also generated a customized professional development priority profile for each participant as well as for your school system based on the LoTi Digital-Age Priority Areas aligned to the ISTE National Educational Technology Standards for Teachers (NETS-T). (See Appendix A.) This profile identifies priority areas for professional development in five specific categories aligned to the NETS-T: Digital-Age Work and Learning; Digital-Age Learning Experiences and Assessments; Student Learning and Creativity; Professional Growth and Leadership; and Digital Citizenship and Responsibility. The resulting profile, in essence, represents a personalized professional development growth plan for each individual as well as for your school system targeting Digital-Age literacy, classroom pedagogy, and student achievement.

LoTi Digital-Age Priorities



The LoTi Digital-Age Priorities focus on the delicate balance between instruction, assessment, and the effective use of digital tools and resources to promote 21st Century teaching and learning.

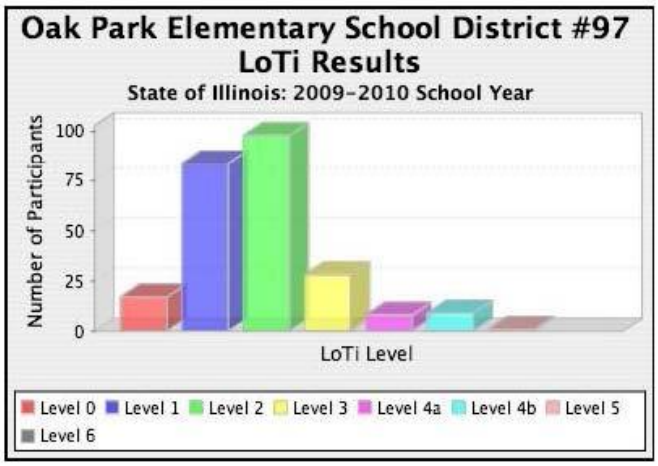
Digital-Age Priority: Student Learning and Creativity

Student Learning and Creativity was determined to have the highest-level need for professional development while Professional Growth and Leadership was determined to have the lowest-level need for professional development. It is highly recommended that staff development planners use the data from the five empirically-validated LoTi Digital-Age Priority Areas to offer professional development onsite and online via courses, workshops, seminars, and/or mentoring opportunities that address the highest priority areas identified.

As you review the individual priorities for professional development, it is recommended that your school, district, or region align existing professional development offerings (e.g., courses, seminars, webinars, mentoring opportunities, workshops) with the specific LoTi Digital-Age Priority Areas. These categories are aligned directly to ISTE's National Educational Technology Standards for Teachers (NETS-T) and have been empirically-validated to provide school systems with a road map to close the achievement gap, promote Digital-Age literacy, and elevate the overall level of teaching innovation in the classroom. This process will enable classroom teachers to make a connection between their individual LoTi Digital-Age Profile and staff development opportunities provided by your school system.

LoTI Digital-Age Priority	LoTI Digital-Age Priority Level Description
Digital-Age Work and Learning	According to the National Education Technology Standards for Teachers (NETS-T) from ISTE, Digital-Age Work and Learning signifies a teacher's exhibition of the "knowledge, skills, and work processes representative of an innovative professional in a global and digital society." Based on this priority area, a teacher is able to demonstrate fluency in a variety of technology systems, communicate relevant information and collaborate with others (e.g., students, parents, community members) using a variety of digital tools and resources, and employ current and emerging technologies for data analysis purposes in support of research and learning.
Digital-Age Learning Experiences and Assessments	According to the National Education Technology Standards for Teachers (NETS-T) from ISTE, Digital-Age Learning Experiences and Assessments signifies a teacher's ability to "design, develop, and evaluate authentic learning experiences and assessments incorporating contemporary tools and resources to maximize content learning...." Based on this priority area, a teacher is able to create and implement engaging and relevant learning experiences that incorporate a variety of digital tools and resources, promote learner-based investigations, and provide a myriad of formative and summative assessment schemes aligned to the content and technology standards to improve and adjust future learning experiences.
Student Learning and Creativity	According to the National Education Technology Standards for Teachers (NETS-T) from ISTE, Student Learning and Creativity signifies a teacher's ability to "use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments." Based on this priority area, a teacher is able to promote, support, and model creative and innovative thinking; engage students in real-world problem-solving and issues resolution; model collaborative learning communities; and support student reflection using a variety of collaborative tools and resources.
Professional Growth and Leadership	According to the National Education Technology Standards for Teachers (NETS-T) from ISTE, Professional Growth and Leadership signifies a teacher's inclination to "continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources." Based on this priority area, a teacher is able to participate in local and global learning communities, evaluate and reflect on current research and professional practice involving the use of digital tools and resources, and exercise leadership in promoting the technology skills of others as well as improvements to the teaching profession.
Digital Citizenship and Responsibility	According to the National Education Technology Standards for Teachers (NETS-T) from ISTE, Digital Citizenship and Responsibility signifies a teacher's understanding of the "local and global societal issues and responsibilities in an evolving digital culture and (the ability to) exhibit legal and ethical behavior in their professional practice." Based on this priority area, a teacher is able to to advocate, model, and teach safe, legal, and ethical use of digital information and technology; employ learner-centered strategies to address the diverse needs of all learners; promote and model digital etiquette; and promote Digital-Age communication and collaboration tools with diverse groups and cultures.

LoTi Profile



LoTi 2

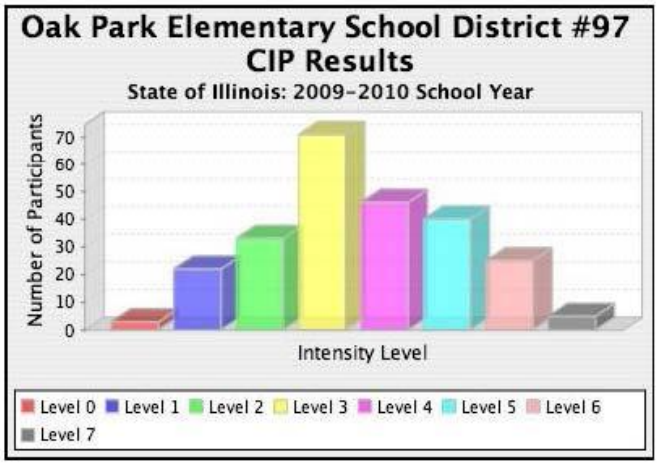
The Levels of Teaching Innovation (LoTi) Profile approximates the degree to which each participant is either supporting or implementing the tenets of digital-age teaching and learning in a classroom setting.

LoTi Level 2: Exploration

At a Level 2 (Exploration) the instructional focus emphasizes content understanding and supports mastery learning and direct instruction. Teacher questioning and/or student learning focuses on lower levels of student cognitive processing (e.g., knowledge, comprehension) using the available digital assets.

LoTi Level	Description	Percent of Participants	Number of Participants
Level 0: Non-use	Instructional focus may vary; digital tools and resources are not used during the instructional day.	7 %	17
Level 1: Awareness	Instructional focus emphasizes information dissemination; teachers use digital tools and resources for classroom management tasks or instructional presentations.	34 %	84
Level 2: Exploration	Instructional focus emphasizes content understanding; students use digital tools and resources to generate multimedia products that showcase content understanding.	40 %	98
Level 3: Infusion	Instructional focus emphasizes engaged higher order learning; students use digital tools and resources to solve teacher-directed problems related to the content under investigation.	11 %	28
Level 4a: Integration	Instructional focus emphasizes student-directed exploration of real-world issues; students use digital tools and resources to answer self-generated questions that dictate the content, process, and product. Level 4a teachers experience classroom management or climate issues that restrict full-scale integration.	3 %	8
Level 4b: Integration (Routine)	Instructional focus emphasizes student-directed exploration of real-world issues; students use digital tools and resources to answer self-generated questions that dictate the content, process, and product. Level 4b teachers facilitate full-scale inquiry-based teaching regularly with minimal implementation issues.	4 %	9
Level 5: Expansion	Instructional focus emphasizes global student collaboration to solve world issues; students use digital tools and resources for authentic problem-solving opportunities beyond the classroom.	0 %	1
Level 6: Refinement	Instructional focus is entirely learner-based; students experience seamless integration of digital tools and resources for their self-directed problem solving and issues resolution.	0 %	0

CIP Profile



CIP

3

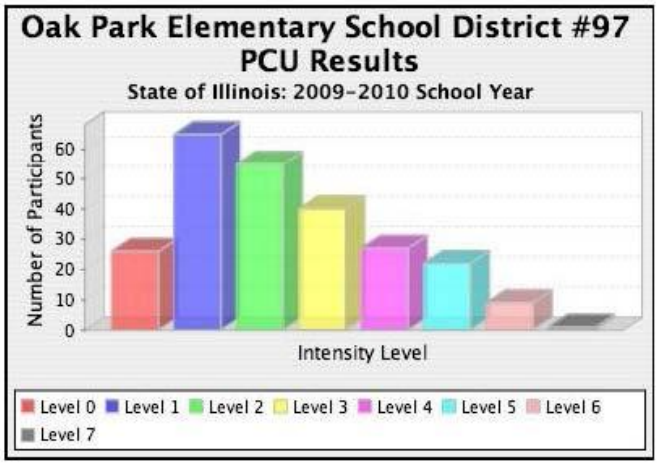
The Current Instructional Practices (CIP) Profile reveals each participant's support for or implementation of instructional practices consistent with a learner-based curriculum design and research-based best practices.

CIP Intensity Level 3

At a CIP Intensity Level 3, the participant supports instructional practices aligned somewhat with a subject-matter based approach to teaching and learning-an approach characterized by sequential and uniform learning activities for all students, teacher-directed presentations, and/or the use of traditional evaluation techniques. However, the participant may also support the use of student-directed projects that provide opportunities for students to determine the "look and feel" of a final product based on their modality strengths, learning styles, or interests.

CIP Level	Description	Percent of Participants	Number of Participants
CIP Intensity Level 0	No formal classroom setting.	1 %	3
CIP Intensity Level 1	Instructional practices align exclusively with a subject-matter based approach to teaching and learning; teaching strategies lean toward lectures and/or teacher-led presentations.	9 %	22
CIP Intensity Level 2	Instructional practices still consistent with a subject-matter based approach to teaching and learning; emphasis on didactic instruction and teacher-generated questions.	13 %	33
CIP Intensity Level 3	Instructional practices align somewhat with a subject-matter based approach to teaching and learning with limited options given to students for their final products.	29 %	71
CIP Intensity Level 4	Instructional practices align with a subject-matter based approach to teaching and learning, but students are given expanded options with the content, process, and/or products.	19 %	46
CIP Intensity Level 5	Instructional practices lean toward a learner-based approach; teaching strategies and assessments used for learning are diversified and driven by student questions.	16 %	40
CIP Intensity Level 6	Instructional practices consistent with a learner-based approach; student inquiry and self-directed problem solving influence the content and context of instruction.	10 %	25
CIP Intensity Level 7	Instructional practices align exclusively with a learner-based approach to teaching and learning; students establish personal goals and monitor their own pace and progress with a purposeful learning space.	2 %	5

PCU Profile



PCU

2

The Personal Computer Use (PCU) Profile addresses each participant's fluency level with digital tools and resources for student learning as well as their use in the workplace.

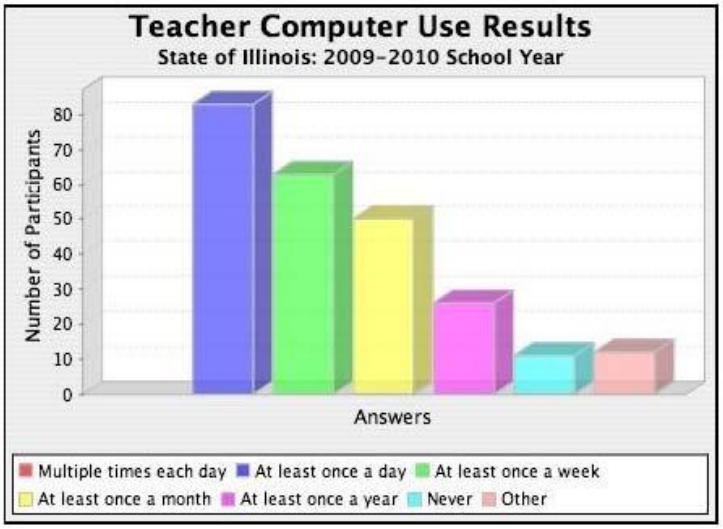
PCU Intensity Level 2

A PCU Intensity Level 2 indicates that the participant demonstrates little to moderate fluency with using digital tools and resources for student learning. Participants at Intensity Level 2 may occasionally browse the internet, use email, or use a word processor program; yet, may not have the confidence or feel comfortable using existing and emerging digital tools beyond classroom management tasks (e.g., grade book, attendance program). Participants at this level are somewhat aware of copyright issues and maintain a cursory understanding of the impact of existing and emerging digital tools and resources on student learning.

PCU Level	Description	Percent of Participants	Number of Participants
PCU Intensity Level 0	No inclination or skill level to use digital tools and resources for either personal or professional use.	11 %	26
PCU Intensity Level 1	Little fluency with using digital tools and resources for student learning; may have a general awareness of various digital tools and media but is not using them.	27 %	65
PCU Intensity Level 2	Little to moderate fluency with using digital tools and resources for student learning; does not feel comfortable using digital tools/resources beyond classroom management.	22 %	55
PCU Intensity Level 3	Moderate fluency with using digital tools and resources for student learning; may begin to become "regular" user of selected digital-age media and formats.	16 %	40
PCU Intensity Level 4	Moderate to high fluency with using digital tools and resourcesfor student learning; commonly uses a broader range of digital-age media and formats in support of curriculum.	11 %	27
PCU Intensity Level 5	High fluency level with using digital tools and resources for student learning; commonly able to expand range of emerging digital-age media and formats in support of curriculum.	9 %	22
PCU Intensity Level 6	High to extremely high fluency level with using digital tools and resources for student learning; sophisticated in the use of most existing and emerging digital-age media or format.	4 %	9
PCU Intensity Level 7	Extremely high fluency level with using digital tools and resources for student learning; sophisticated in the use of any existing and emerging digital-age media or format.	0 %	1

Teacher Computer Use

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.



Demographic Profile: Teacher Computer Use

** Required **

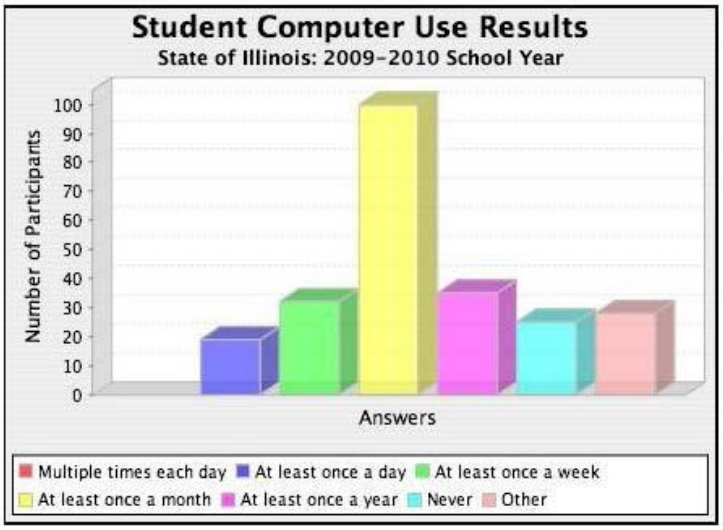
How often are you (the teacher) using digital tools and resources during the instructional day?

Response	Percent of Participants	Number of Participants
Multiple times each day	less than 1%	0
At least once a day	34%	83
At least once a week	26%	63
At least once a month	20%	50
At least once a year	11%	26
Never	4%	11
Other	5%	12

245 out of 245 participants responded to this question.

Student Computer Use

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.



Demographic Profile: Student Computer Use

** Required **

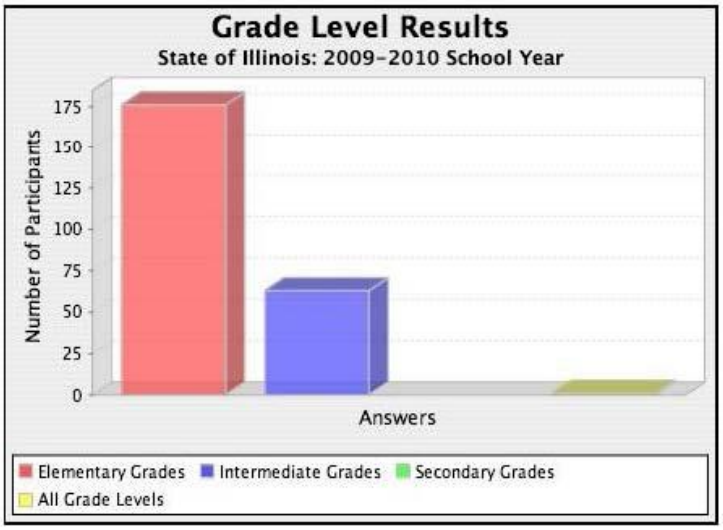
How often are your students using digital tools and resources during the instructional day?

Response	Percent of Participants	Number of Participants
Multiple times each day	less than 1%	0
At least once a day	8%	19
At least once a week	13%	32
At least once a month	42%	100
At least once a year	15%	35
Never	10%	25
Other	12%	28

239 out of 245 participants responded to this question.

Grade Level

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.



Demographic Profile: Grade Level

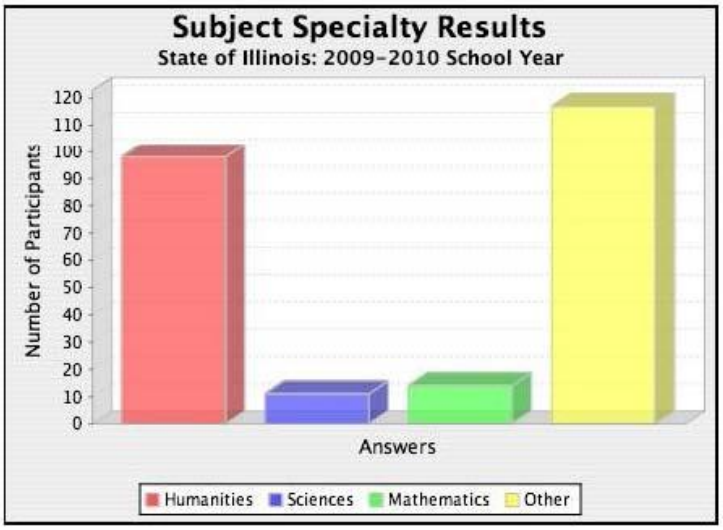
Which category best describes your primary grade level?

Response	Percent of Participants	Number of Participants
Elementary Grades (PreK-Grade 2, PreK-Grade 5, PreK-Grade 6, PreK-Grade 8, Grade 3-5)	73%	176
Intermediate Grades (Grade 6-8, Grade 6-9, Grade 7-8)	26%	63
Secondary Grades (Grade 9-12, Grade 10-12)	less than 1%	0
All Grade Levels (PreK-Grade 12)	less than 1%	1

240 out of 245 participants responded to this question.

Subject/Specialty

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.



Demographic Profile: Subject Specialty

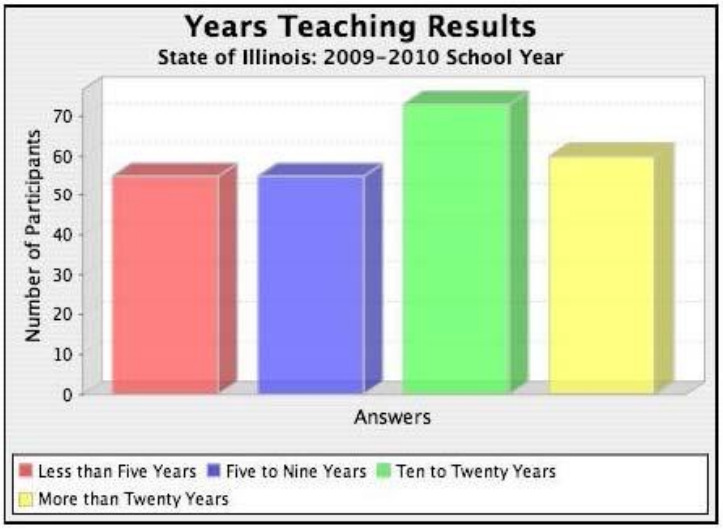
Which category best describes your primary subject/specialty?

Response	Percent of Participants	Number of Participants
Humanities (e.g., Language Arts, Fine Arts, Theatrical Arts, Social Studies)	41%	98
Sciences (e.g., Physical Science, Chemistry, Health Science)	5%	11
Mathematics (e.g., Geometry, Algebra, Statistics)	6%	14
Other (e.g., Physical Education, Industrial Technology, Administration, Elementary, Other Electives)	49%	117

240 out of 245 participants responded to this question.

Years Teaching

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.



Demographic Profile: Years Teaching

How many years of experience do you have in education?

Response	Percent of Participants	Number of Participants
Less than Five Years	23%	55
Five to Nine Years	23%	55
Ten to Twenty Years	30%	73
More than Twenty Years	25%	60

243 out of 245 participants responded to this question.

Greatest Obstacle

Demographic profile questions provide additional information that can aid stakeholders in determining appropriate professional development goals for staff.

Demographic Profile: Greatest Obstacle

What do you perceive as your greatest obstacle to further using technology in your instructional setting?

Response	Percent of Participants	Number of Participants
Access to Technology	46%	113
Time to Learn, Practice, and Plan	43%	105
Other Priorities (e.g., Statewide Testing, New Textbook Adoptions)	9%	21
Lack of Staff Development Opportunities	2%	5

244 out of 245 participants responded to this question.

LoTi Digital-Age Survey Findings

Approximately 4% of Oak Park Elementary School District #97 participants (10 participants) completing the LoTi Digital-Age Survey self-assessed themselves at the Proficient Level as defined by the National Education Technology Standards for Teachers (NETS-T). This level is characterized by the use of digital tools and resources embedded in challenging and engaging learning experiences that promote problem solving, critical thinking, and self-directed learning.

Approximately 81% of the 245 Oak Park Elementary School District #97 participants were clustered in Levels 0 through 2. These levels represent the lower portion of the LoTi Framework (see Appendices) and focus primarily on teacher's use of productivity tools, student use of tutorial programs, and "project-based" learning opportunities at the knowledge/comprehension level.

Though 100% of Oak Park Elementary School District #97 participants reported having instructional access to digital tools and resources for teacher and student use, approximately 40% of these same participants indicated that they felt fluent in using digital tools and resources in the workplace for student learning.

Approximately 76% of Oak Park Elementary School District #97 educators indicated that they either supported or implemented one or more attributes of a learner-centered curriculum. A learner-centered curriculum includes attributes such as a focus on multiple assessment strategies, an emphasis on higher-order thinking skills, and the creation of a problem-based learning environment. Research has found strong links between digital tools and resources used in conjunction with these attributes and higher student achievement based on standardized test scores.

Based on their responses to the LoTi Digital-Age Survey, the highest professional development priority for Oak Park Elementary School District #97 participants was in the area of Student Learning and Creativity; the lowest professional development priority area for Oak Park Elementary School District #97 participants was in the area of Professional Growth and Leadership.

Digital-Age Goals

Move 13% of the staff member(s) positioned at a Level 2 implementation of technology to a Level 4a during the current school year. This recommendation is based on the relatively high Current Instructional Practices (CIP) scores of these staff members toward a learner-based approach in the classroom and their relatively high Personal Computer Use (PCU) scores.

Move 87% of the staff member(s) positioned at a Level 2 implementation of technology to a Level 3 during the current school year. This recommendation is consistent with these staff members current scores for Current Instructional Practices (CIP) and Personal Computer Use (PCU).

Move 100% of the staff member(s) positioned at a Level 0 implementation of technology to a Level 2 during the current school year. This recommendation is consistent with these staff members current scores for Current Instructional Practices (CIP) and Personal Computer Use (PCU).

Additional goal statements that target other participants at their respective level of technology implementation should be considered based on available financial and personnel resources.

Digital-Age Recommendations

Consolidate all professional development interventions into a single staff development program based on the five LoTi Digital-Age Professional Development Priority Areas aligned to the NETS-T. This step will provide a common focus for teachers to create individualized professional development plans based on empirically-validated constructs aligned to school or district professional development offerings.

Provide staff development that models specific strategies and techniques for integrating higher-order thinking skills and engaged learning with the available digital tools and resources. This recommendation is targeted at moving participants to Level 3 relating to their level of technology implementation.

Provide staff development that increases participants' confidence and competence with designing LoTi Level 4+ learning experiences using a constructivist, learner-based approach to curriculum planning. This recommendation is targeted at (1) moving participants to a LoTi Level 4a and 4b and (2) improving the perceptions of LoTi Level 4a participants regarding their ability to support or promote authentic, problem-solving learning opportunities.

Review existing districtwide professional development programs in light of the results from this study. Currently, 81% of the survey participants self-assessed themselves at Levels 0-2, yet close to 71% of these same participants indicated that they were implementing one or more of the attributes of a learner-centered curriculum. It is respectfully recommended that stakeholders consider new approaches and/or modify existing approaches to districtwide professional development so that educators can make better connections between technology use and student authentic problem-solving in the classroom. This recommendation is targeted at moving lower level survey participants to Level 3.

Digital-Age Planning

LoTi (Levels of Teaching Innovation) was designed to harness the critical attributes of existing initiatives (e.g., Daggett's Rigor & Relevance, Marzano's Research-based Best Practices, and Wiggins and McTighe's Understanding by Design) into one UNITED EFFORT to improve instruction and maximize student achievement.

LoTi Online

Professional development online has never been easier! The LoTi Classroom offers:

- ✓ Classes written for the novice online learner.
- ✓ Opportunities for teachers with tight schedules to explore digital-age learning.
- ✓ Highly engaging and enlightening online research-based professional development.
- ✓ Learning by doing; if it can't be applied to your classroom, it is not worth learning.
- ✓ Graduate credit through the University of Delaware.

LoTi Onsite

Professional development the old-fashioned way... in person! Onsite LoTi sessions include:

- ✓ LoTi Orientation
- ✓ LoTi Administrator Institute
- ✓ LoTi Mentor Certification Institute
- ✓ LoTi 21st Century Makeovers Institute
- ✓ Classroom Walkthroughs
- ✓ Data-driven Decision-making

LoTi Observer

Classroom walkthroughs are easier than ever on the *iPod touch*®! The LoTi Observer:

- ✓ Provides a powerful system for mobile data collection and analysis of research-based best practice behaviors.
- ✓ Promotes continuous improvement of instructional practices.
- ✓ Uploads walkthrough data online to edit/review/print reports.
- ✓ Effectively gauges levels of teaching innovation on campus.
- ✓ Is ideal for use by building administrators and LoTi Mentors.

Appendix A:
ISTE's NETS for Teachers

NETS-T Standard	Description
Model Digital-Age Work and Learning	Teachers exhibit knowledge, skills, and work processes representative of an innovative professional in a global and digital society. Teachers: a. demonstrate fluency in technology systems and the transfer of current knowledge to new technologies and situations. b. collaborate with students, peers, parents, and community members using digital tools and resources to support student success and innovation. c. communicate relevant information and ideas effectively to students, parents, and peers using a variety of digital-age media and formats. d. model and facilitate effective use of current and emerging digital tools to locate, analyze, evaluate, and use information resources to support research and learning.
Design and Develop Digital-Age Learning Experiences and Assessments	Teachers design, develop, and evaluate authentic learning experiences and assessment incorporating contemporary tools and resources to maximize content learning in context and to develop the knowledge, skills, and attitudes identified in the NETS-S. Teachers: a. design or adapt relevant learning experiences that incorporate digital tools and resources to promote student learning and creativity. b. develop technology-enriched learning environments that enable all students to pursue their individual curiosities and become active participants in setting their own educational goals, managing their own learning, and assessing their own progress. c. customize and personalize learning activities to address students' diverse learning styles, working strategies, and abilities using digital tools and resources. d. provide students with multiple and varied formative and summative assessments aligned with content and technology standards and use resulting data to inform learning and teaching.
Facilitate and Inspire Student Learning and Creativity	Teachers use their knowledge of subject matter, teaching and learning, and technology to facilitate experiences that advance student learning, creativity, and innovation in both face-to-face and virtual environments. Teachers: a. promote, support, and model creative and innovative thinking and inventiveness. b. engage students in exploring real-world issues and solving authentic problems using digital tools and resources. c. promote student reflection using collaborative tools to reveal and clarify students' conceptual understanding and thinking, planning, and creative processes. d. model collaborative knowledge construction by engaging in learning with students, colleagues, and others in face-to-face and virtual environments.

NETS-T Standard	Description
Engage in Professional Growth and Leadership	Teachers continuously improve their professional practice, model lifelong learning, and exhibit leadership in their school and professional community by promoting and demonstrating the effective use of digital tools and resources. Teachers: a. participate in local and global learning communities to explore creative applications of technology to improve student learning. b. exhibit leadership by demonstrating a vision of technology infusion, participating in shared decision making and community building, and developing the leadership and technology skills of others. c. evaluate and reflect on current research and professional practice on a regular basis to make effective use of existing and emerging digital tools and resources in support of student learning. d. contribute to the effectiveness, vitality, and self-renewal of the teaching profession and of their school and community.
Promote and Model Digital Citizenship and Responsibility	Teachers understand local and global societal issues and responsibilities in an evolving digital culture and exhibit legal and ethical behavior in their professional practices. Teachers: a. advocate, model, and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources. b. address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources. c. promote and model digital etiquette and responsible social interactions related to the use of technology and information. d. develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital-age communication and collaboration tools.

Appendix B: LoTi Framework

LoTi Level	Description
Level 0: Non-use	At a Level 0 (Non-Use), the instructional focus ranges anywhere from a traditional direct instruction approach to a collaborative student-centered learning environment. The use of research-based best practices may or may not be evident, but those practices do not involve the use of digital tools and resources. The use of digital tools and resources in the classroom is non-existent due to (1) competing priorities (e.g., high stakes testing, highly-structured and rigid curriculum programs), (2) lack of access, or (3) a perception that their use is inappropriate for the instructional setting or student readiness levels. The use of instructional materials is predominately text-based (e.g., student handouts, worksheets).
Level 1: Awareness	At a Level 1 (Awareness), the instructional focus emphasizes information dissemination to students (e.g., lectures, teacher-created multimedia presentations) and supports the lecture/discussion approach to teaching. Teacher questioning and/or student learning typically focuses on lower cognitive skill development (e.g., knowledge, comprehension). Digital tools and resources are either (1) used by the classroom teacher for classroom and/or curriculum management tasks (e.g., taking attendance, using grade book programs, accessing email, retrieving lesson plans from a curriculum management system or the Internet), (2) used by the classroom teacher to embellish or enhance teacher lectures or presentations (e.g., multimedia presentations), and/or (3) used by students (usually unrelated to classroom instructional priorities) as a reward for prior work completed in class.
Level 2 Exploration	At a Level 2 (Exploration) the instructional focus emphasizes content understanding and supports mastery learning and direct instruction. Teacher questioning and/or student learning focuses on lower levels of student cognitive processing (e.g., knowledge, comprehension). Digital tools and resources are used by students for extension activities, enrichment exercises, or information gathering assignments that generally reinforce lower cognitive skill development relating to the content under investigation. There is a pervasive use of student multimedia products, allowing students to present their content understanding in a digital format that may or may not reach beyond the classroom.
Level 3: Infusion	At a Level 3 (Infusion), the instructional focus emphasizes student higher order thinking (i.e., application, analysis, synthesis, evaluation) and engaged learning. Though specific learning activities may or may not be perceived as authentic by the student, instructional emphasis is, nonetheless, placed on higher levels of cognitive processing and in-depth treatment of the content using a variety of thinking skill strategies (e.g., problem-solving, decision-making, reflective thinking, experimentation, scientific inquiry). Teacher-centered strategies including the concept attainment, inductive thinking, and scientific inquiry models of teaching are the norm and guide the types of products generated by students. Digital tools and resources are used by students to carry out teacher-directed tasks that emphasize higher levels of student cognitive processing relating to the content under investigation.

LoTi Level	Description
Level 4a: Integration (Mechanical)	At a Level 4a (Integration: Mechanical) students are engaged in exploring real-world issues and solving authentic problems using digital tools and resources; however, the teacher may experience classroom management (e.g., disciplinary problems, internet delays) or school climate issues (lack of support from colleagues) that restrict full-scale integration. Heavy reliance is placed on prepackaged materials and/or outside resources (e.g., assistance from other colleagues), and/or interventions (e.g., professional development workshops) that aid the teacher in sustaining engaged student problem-solving. Emphasis is placed on applied learning and the constructivist, problem-based models of teaching that require higher levels of student cognitive processing and in-depth examination of the content. Students use of digital tools and resources is inherent and motivated by the drive to answer student-generated questions that dictate the content, process, and products embedded in the learning experience.
Level 4b: Integration (Routine)	At a Level 4b (Integration: Routine) students are fully engaged in exploring real-world issues and solving authentic problems using digital tools and resources. The teacher is within his/her comfort level with promoting an inquiry-based model of teaching that involves students applying their learning to the real world. Emphasis is placed on learner-centered strategies that promote personal goal setting and self-monitoring, student action, and issues resolution that require higher levels of student cognitive processing and in-depth examination of the content. Students use of digital tools and resources is inherent and motivated by the drive to answer student-generated questions that dictate the content, process, and products embedded in the learning experience.
Level 5: Expansion	At a Level 5 (Expansion), collaborations extending beyond the classroom are employed for authentic student problem-solving and issues resolution. Emphasis is placed on learner-centered strategies that promote personal goal setting and self-monitoring, student action, and collaborations with other diverse groups (e.g., another school, different cultures, business establishments, governmental agencies). Students use of digital tools and resources is inherent and motivated by the drive to answer student-generated questions that dictate the content, process, and products embedded in the learning experience. The complexity and sophistication of the digital resources and collaboration tools used in the learning environment are now commensurate with (1) the diversity, inventiveness, and spontaneity of the teacher's experiential-based approach to teaching and learning and (2) the students' level of complex thinking (e.g., analysis, synthesis, evaluation) and in-depth understanding of the content experienced in the classroom.
Level 6: Refinement	At a Level 6 (Refinement), collaborations extending beyond the classroom that promote authentic student problem-solving and issues resolution are the norm. The instructional curriculum is entirely learner-based. The content emerges based on the needs of the learner according to his/her interests, needs, and/or aspirations and is supported by unlimited access to the most current digital applications and infrastructure available. At this level, there is no longer a division between instruction and digital tools and resources in the learning environment. The pervasive use of and access to advanced digital tools and resources provides a seamless medium for information queries, creative problem-solving, student reflection, and/or product development. Students have ready access to and a complete understanding of a vast array of collaboration tools and related resources to accomplish any particular task.

Appendix C: CIP Framework

CIP Level	Description
CIP Intensity Level 0	A CIP Intensity Level 0 indicates that the participant is not involved in a formal classroom setting (e.g., pull-out program).
CIP Intensity Level 1	At a CIP Intensity Level 1, the participant's current instructional practices align exclusively with a subject-matter based approach to teaching and learning. Teaching strategies tend to lean toward lectures and/or teacher-led presentations. The use of curriculum materials aligned to specific content standards serves as the focus for student learning. Learning activities tend to be sequential and uniform for all students. Evaluation techniques focus on traditional measures such as essays, quizzes, short-answers, or true-false questions, but no effort is made to use the results of the assessments to guide instruction. Student projects tend to be teacher-directed in terms of identifying project outcomes as well as requirements for project completion. No effort is made to differentiate instruction. The use of research-based best practices focuses on basic classroom routines (e.g., providing homework and practice, setting objectives and providing feedback, students summarizing and note taking, providing adequate wait time).
CIP Intensity Level 2	At a CIP Intensity Level 2, the participant supports instructional practices consistent with a subject-matter based approach to teaching and learning, but not at the same level of intensity or commitment as a CIP Intensity Level 1. Teaching strategies tend to lean toward lectures and/or teacher-led presentations. The use of curriculum materials aligned to specific content standards serves as the focus for student learning. Learning activities tend to be sequential and uniform for all students. Evaluation techniques focus on traditional measures such as essays, quizzes, short-answers, or true-false questions with the resulting data used to guide instruction. Student projects tend to be teacher-directed in terms of identifying project outcomes as well as requirements for project completion. No effort is made to differentiate instruction. The use of research-based best practices focuses on basic classroom routines (e.g., providing homework and practice, setting objectives and providing feedback, students summarizing and note taking, providing adequate wait time).
CIP Intensity Level 3	At a CIP Intensity Level 3, the participant supports instructional practices aligned somewhat with a subject-matter based approach to teaching and learning?Ätan approach characterized by sequential and uniform learning activities for all students, teacher-directed presentations, and/or the use of traditional evaluation techniques. However, the participant may also support the use of student-directed projects that provide opportunities for students to determine the "look and feel" of a final product based on their modality strengths, learning styles, or interests. Evaluation techniques continue to focus on traditional measures with the resulting data serving as the basis for curriculum decision-making. The use of research-based best practices expands beyond basic classroom routines (e.g., providing opportunities for non-linguistic representation, offering advanced organizers).
CIP Intensity Level 4	At a CIP Intensity Level 4, the participant may feel comfortable supporting or implementing either a subject-matter or learning-based approach to instruction based on the content being addressed. In a subject-matter based approach, learning activities tend to be sequential, student projects tend to be uniform for all students, the use of lectures and/or teacher-directed presentations are the norm as well as traditional evaluation strategies. In a learner-based approach, learning activities are diversified and based mostly on student questions, the teacher serves more as a co-learner or facilitator in the classroom, student projects are primarily student-directed, and the use of alternative assessment strategies including performance-based assessments, peer reviews, and student reflections are the norm.

CIP Level	Description
CIP Intensity Level 4(cont.)	Although traditional learning activities and evaluation techniques are used, students are also encouraged to contribute to the assessment process when appropriate to the content being addressed. The amount of differentiation is moderate based on the readiness level, interests, and learning styles of the students. The use of research-based best practices expands beyond basic classroom routines (e.g., providing opportunities for non-linguistic representation, offering advanced organizers).
CIP Intensity Level 5	At a CIP Intensity Level 5, the participant's instructional practices tend to lean more toward a learner-based approach. The essential content embedded in the standards emerges based on students "need to know" as they attempt to research and solve issues of importance to them using critical thinking and problem-solving skills. The types of learning activities and teaching strategies used in the learning environment are diversified and driven by student questions. Both students and teachers are involved in devising appropriate assessment instruments (e.g., performance-based, journals, peer reviews, self-reflections) by which student performance will be assessed. Although student-directed learning activities and evaluations are the norm, the use of teacher-directed activities (e.g., lectures, presentations, teacher-directed projects) may surface based on the nature of the content being addressed and at the desired level of student cognition. The amount of differentiation is substantial based on the readiness level, interests, and learning styles of the students. The use of research-based best practices delves deeper into complex classroom routines (e.g., students generating and testing hypotheses, implementing cooperative learning, students identifying similarities and differences).
CIP Intensity Level 6	The participant at a CIP Intensity Level 6 supports instructional practices consistent with a learner-based approach, but not at the same level of intensity or commitment as a CIP Intensity Level 7. The essential content embedded in the standards emerges based on students "need to know" as they attempt to research and solve issues of importance to them using critical thinking and problem-solving skills. The types of learning activities and teaching strategies used in the learning environment are diversified and driven by student questions. Students, teacher/facilitators, and occasionally parents are all involved in devising appropriate assessment instruments (e.g., performance-based, journals, peer reviews, self-reflections) by which student performance will be assessed. The amount of differentiation is substantial based on the readiness level, interests, and learning styles of the students. The use of research-based best practices delves deeper into complex classroom routines (e.g., students generating and testing hypotheses, implementing cooperative learning, students identifying similarities and differences).
CIP Intensity Level 7	At a CIP Intensity Level 7, the participant's current instructional practices align exclusively with a learner-based approach to teaching and learning. The essential content embedded in the standards emerges based on students "need to know" as they attempt to research and solve issues of importance to them using critical thinking and problem-solving skills. The types of learning activities and teaching strategies used in the learning environment are diversified and driven by student questions. Students, teacher/facilitators, and occasionally parents are all involved in devising appropriate assessment instruments (e.g., performance-based, journals, peer reviews, self-reflections) by which student performance will be assessed. The amount of differentiation is seamless since students completely guide the pace and level of their learning. The use of research-based best practices delves deeper into complex classroom routines (e.g., students generating and testing hypotheses, implementing cooperative learning, students identifying similarities and differences).

Appendix D: PCU Framework

PCU Level	Description
PCU Intensity Level 0	A PCU Intensity Level 0 indicates that the participant does not possess the inclination or skill level to use digital tools and resources for either personal or professional use. Participants at Intensity Level 0 exhibit a general disinterest toward emerging technologies relying more on traditional devices (e.g., use of overhead projectors, chalkboards, paper/pencil activities) than using digital resources for conveying information or classroom management tasks.
PCU Intensity Level 1	A PCU Intensity Level 1 indicates that the participant demonstrates little fluency with using digital tools and resources for student learning. Participants at Intensity Level 1 may have a general awareness of various digital tools and media including word processors, spreadsheets, or the internet, but generally are not using them. Participants at this level are generally unaware of copyright issues or current research on the impact of existing and emerging digital tools and resources on student learning.
PCU Intensity Level 2	A PCU Intensity Level 2 indicates that the participant demonstrates little to moderate fluency with using digital tools and resources for student learning. Participants at Intensity Level 2 may occasionally browse the internet, use email, or use a word processor program; yet, may not have the confidence or feel comfortable using existing and emerging digital tools beyond classroom management tasks (e.g., grade book, attendance program). Participants at this level are somewhat aware of copyright issues and maintain a cursory understanding of the impact of existing and emerging digital tools and resources on student learning.
PCU Intensity Level 3	A PCU Intensity Level 3 indicates that the participant demonstrates moderate fluency with using digital tools and resources for student learning. Participants at Intensity Level 3 may begin to become &quote;regular&quote; users of selected digital-age media and formats (e.g., internet, email, word processor, multimedia) to (1) communicate with students, parents, and peers and (2) model their use in the classroom in support of research and learning. Participants at this level are aware of copyright issues and maintain a moderate understanding of the impact of existing and emerging digital tools and resources on student learning.

PCU Level	Description
PCU Intensity Level 4	A PCU Intensity Level 4 indicates that the participant demonstrates moderate to high fluency with using digital tools and resources for student learning. Participants at Intensity Level 4 commonly use a broader range of digital-age media and formats in support of their curriculum and instructional strategies. Participants at this level model the safe, legal, and ethical uses of digital information and technologies and participate in local discussion forums that advocate the positive impact of existing digital tools and resources on student success in the classroom.
PCU Intensity Level 5	A PCU Intensity Level 5 indicates that the participant demonstrates a high fluency level with using digital tools and resources for student learning. Participants at Intensity Level 5 are commonly able to use an expanded range of existing and emerging digital-age media and formats in support of their curriculum and instructional strategies. Participants at this level advocate the safe, legal, and ethical uses of digital information and technologies and participate in local and global learning that advocate the positive impact of existing digital tools and resources on student success in the classroom.
PCU Intensity Level 6	A PCU Intensity Level 6 indicates that the participant demonstrates high to extremely high fluency level with using digital tools and resources for student learning. Participants at Intensity Level 6 are sophisticated in the use of most, if not all, existing and emerging digital-age media and formats (e.g., multimedia, productivity, desktop publishing, web-based applications). They begin to take on a leadership role as advocates for technology infusion as well as the safe, legal, and ethical uses of digital resources in the schools. Participants at this level continually reflect on the latest research discussing the impact of digital tools on student success.
PCU Intensity Level 7	A PCU Intensity Level 7 indicates that the participant possesses an extremely high fluency level with using digital tools and resources for student learning. Participants at Intensity Level 7 are sophisticated in the use of any existing and emerging digital-age media and formats (e.g., multimedia, productivity, desktop publishing, web-based applications). Participants at this level set the vision for technology infusion based on the latest research and continually seek creative uses of digital tools and resources that impact learning. They actively participate in global learning communities that seek creative uses of digital tools and resources in the classroom.

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Inquiries

For any further inquiries, please contact LoTi Connection, Inc. by any means listed below or visit the LoTi Connection web site to learn more about the Levels of Teaching Innovation.

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LoTi
Heating Up 21st Century Learning

January 2009 Staff Technology Survey

What obstacles, if any, do you face in effectively integrating technology in your teaching?

Answer Options	Response Percent	Response Count
Not enough computers	66.8%	129
Computers that don't work or are outdated	54.9%	106
Computers in an inconvenient location	28.5%	55
Slow access time to get on the Internet or save documents	51.8%	100
Lack of software or websites that support my curriculum	25.4%	49
Lack of time in the school day	59.6%	115
No reliable technology support when things don't work	39.9%	77
Internet filters and firewalls	8.3%	16
Lack of support from administrators	6.2%	12
Limited knowledge about how to use technology	24.9%	48
Limited understanding of how to effectively integrate technology	24.9%	48
Other (please specify)	24.4%	47
answered question		**193**
skipped question		**36**

Do you own a home computer?

Answer Options	Response Percent	Response Count
Yes	96.0%	216
No	4.0%	9
answered question		**225**
skipped question		**4**

What kind of computer do you have at home?

Answer Options	Response Percent	Response Count
Windows	51.6%	116
Mac	27.6%	62
Both Windows and Mac	17.8%	40
Do not have a home computer	3.1%	7
answered question		**225**
skipped question		**4**

With which computer operating system are you most comfortable?		
Answer Options	**Response Percent**	**Response Count**
Only comfortable with Windows	3.5%	8
Somewhat more comfortable with Windows	18.1%	41
Equally comfortable with Windows or Mac	43.4%	98
Somewhat more comfortable on a Mac	24.3%	55
Only comfortable on a Mac	9.7%	22
Not really comfortable on any computer	0.9%	2
answered question		**226**
skipped question		**3**

Please indicate how often you use each of the following skills in your teaching for such purposes as preparing classroom handouts and other student materials, lecture notes, and classroom presentations.

Answer Options	Do not know how to do this	Do not use this in my teaching	Do this rarely in my teaching	Do this a few times a month	Do this almost daily	Response Count
Create a desktop presentation (a slide show like PowerPoint containing words and images, but no video, music, or links to web pages)	42	46	75	32	5	200
Create and use graphics	28	31	51	62	27	199
Create a multimedia presentation (a presentation that includes video, music, images, and animation)	75	49	52	17	5	198
Create a spreadsheet	28	43	63	57	8	199
Create a simple word processing document	0	1	10	35	152	198
Create a document containing graphics and special formatting without using a template or wizard	27	22	25	68	56	198
Create and maintain a web page	78	60	24	14	19	195
Create and maintain a blog	68	42	23	25	41	199
Conduct an effective Internet search	1	3	12	35	147	198
Use a digital camera and transfer the images to a computer	25	21	39	76	38	199
Modify digital images to suit a specific purpose	47	33	40	50	27	197
Set up and use a projector connected to a computer	55	23	44	60	17	199
Troubleshoot equipment or software	63	19	51	44	22	199
				answered question		**200**
				skipped question		**29**

Attachment 3: Operational Technology Improvements

TO: **Members, Board of Education**
Constance Collins, Superintendent of Schools

FROM: **Therese M. O'Neill, Assistant Superintendent for Finance & Operations**
Trish Carlson, Director of Human Resources

RE: **Operational Technology – 5-Year Plan**

DATE: **December 15, 2009**

Background:

As part of the overall 5-year major project plan, operational technology is one component, separate and apart from the Instructional Technology Plan to be presented to the Board of Education in February 2010. In researching Oak Park District 97's history, on the operational side (principally Payroll/Finance and Human Resources), since approximately 1997, we have been utilizing the CIMS software (Payroll, Financial and Human Resource Administration) on the AS/400 platform.

As we were attempting to integrate the on-line purchase order system, a variety of concerns presented themselves, including: (1) school offices having Macs, not PCs; (2) lack of on-line integration of Payroll and Human Resource functions; and, (3) insufficient processing power to support these expanded accesses. More importantly, however, was the fact that the AS/400 hardware had reached its end-of-life cycle and could no longer allow upgrades. Thus, the AS/400 hardware needed to be replaced. Recognizing that the backbone to the existing Finance/Human Resource software had to be replaced (AS/400 hardware) necessitated a complete analysis of these functions and their current, as well as, future capabilities. At this point, the Administration asked its CIMS software consultants, Kirtley Technology, to assist us in this analysis. An initial meeting with Dr. Collins and the Cabinet commenced the project and since then and now, several intensive meetings have occurred with representatives from Human Resources, Business Office and the consultants to develop the proposed plan.

The Plan

The major work in this endeavor is relegated to the Human Resource functions. Clearly the upgrade of the overall hardware is necessary but most of this endeavor is creating a Human Resources database that integrates itself with Payroll, minimizing significantly the amount of "hard" paper flowing through both departments. The addition of a Sub-Tracking System that interfaces with the CIMS software will accurately report attendance, and link to payroll. The addition of the CIMS Employee Portal will allow on-line viewing of employees own personal payroll/attendance information and potentially eliminate printing of payroll direct deposit stubs. These three endeavors support "going paperless" and green initiatives.

Further, there is the capacity of converting existing SASI information directly into the CIMS software, along with the conversion of existing Excel spreadsheets (main source of

personnel data). A significant amount of time will need to be allocated for the inputting of approximately 700 employees personal information to create the initial database but once completed, ongoing time to maintain, upgrade and add new employees will be significantly less.

Overall, the major advantage to staying with the CIMS software and the AS/400 or iSeries is the cost effectiveness achieved by NOT changing the current payroll/finance systems to accommodate the purchase of a new Human Resources management system. Even if we kept the existing payroll/finance systems and purchased an independent Human Resources management system, significant time and additional financial resources would be incurred by creating the interface between the two functions. Further, with the adoption of the 2009-10 budgets, $150,000 was set-aside as part of the overall technology upgrade plan for this year. This $150,000 was earmarked for an updated Human Resource management system. The overall projected cost of this plan, for the first year, is approximately $107,000 and then a projected annual cost for the next four years of approximately $30,000.

Attached is the 5-year plan, detailing each component and the cost for each year, commencing with 2009-10 and continuing through 2013-14. Also attached is a timeline from presentation to the Board on Tuesday, December 15, 2009 through full implementation on July 1, 2010.

The Administration will be presenting a short PowerPoint presentation on Tuesday evening and will be seeking the Board's approval of this plan on January 12, 2010. Representatives from Kirtley Technology will also be present to respond to questions and/or concerns.

Attachment 4: Job Description for Systems Administrator (DRAFT)

The Systems Admin will help design, implement, administer, troubleshoot and develop network server and email resources to meet district and departmental goals and standards for availability, capacity and security. The primary responsibility for this role will be to maximize uptime of Microsoft & Apple server systems and their interfaces to the user community, provide for ongoing maintenance and provide tier-two support to help resolve client issues. The Systems Admin will work closely on related projects, and infrastructure changes. The Systems Admin will manage short and long term projects related to Microsoft/Apple server systems, and assist with LAN/WAN related projects or issues.

CORE COMPETENCIES

Networking

- Understands the issues involved with administering and maintaining corporate infrastructure, including network connectivity, Internet access, email, etc.
- Understands the issues involved in administering and maintaining district WAN/LAN.

Telephony

- Assists with the administration and maintenance of the telephone system, including telephone switches.
- Assists with the creation of new hire telephone and voicemail extensions, routing extensions to appropriate locations and updating information as Innovator seating assignments change.

Training & Lab Maintenance

- Helps set up and maintain computer stations and software for Staff training programs.
- Helps set up and maintain the district computer stations.

Internal Systems

- Assists in supporting district applications; internal district servers, user desktops, etc.
- Assists with basic troubleshooting, backup, and archiving.
- Helps install and improve computer software and network equipment.

New Hire Administration

- Creates network and email accounts for new users.
- Sets up computers for new users and ensures delivery of equipment to users in different locations if necessary.
- Updates company phone lists and email address books.

Help Desk Administration

- Helps answer all trouble calls/emails and enters work orders into our tracking software.
- Assists in administering and maintaining local and web-based versions of our tracking software.

- Assists in the administration and maintenance of Internal Systems programs such as Destiny, PowerSchool, Gmail, and AS400/Alio as well as operating systems used.
- Interacts with internal clients to resolve basic help desk issues; communicates with internal clients in a professional manner maintaining confidentiality.
- Provides responses to internal clients in a timely manner.

Asset Management

- Assists with the inventory management of software licenses, software, hardware, and other IT supplies.
- Assists with the purchase of software, hardware and other IT supplies.
- Promotes responsible usage and care of district equipment.

EXPERIENCE/SKILLS

- In-depth knowledge of Microsoft 2003 and 2008 server software in an Active Directory environment, Apple OS 10.4/10.5 Server, with two to four years of practical Microsoft and Apple server experience
- In-depth knowledge of Apple Server & Mac OS
- Strong troubleshooting, interpersonal, verbal and written communication skills
- Appropriate temperament and knowledge to assist with on-call user support
- Microsoft Certified Systems Engineer (MCSE) 2000/2003/2008 certification
- Apple Certified System Engineer (ACSE) OS 10.5/10.6 certification
- Cisco Certified Network Administrator (CCNA)

Attachment 5: Job Description for Instructional Technology Integrationist

Instructional Technology Integrationist (DRAFT)

Job Description:
The role of the Instructional Technology Specialists is to work with teachers to support their efforts to achieve technology competency (including developing small and large group training) and to collaborate with teachers to help them integrate technology into the curriculum. The planning between the instructional technology specialist and the classroom teacher is the means that makes this integrated instructional technology program work. The teacher brings to the planning process knowledge of subject content and student needs. The instructional technology integration specialist contributes a broad knowledge of technology, an understanding of teaching methods, and a wide range of strategies that may be employed to help students learn technology skills. The Instructional Technology Integrationist is not scheduled in a computer lab to provide teacher release or preparation time. Their responsibilities lie in classroom support.

Responsibilities:

Faculty Instruction and Assistance
• Conducts individual assessment of faculty knowledge of basic technology skills
• Meets regularly to provide one-on-one instruction for technology skills and lesson plan development to include assistance with selection of resources
• Models the integration of technology in all curriculum areas when possible
• Maintains a technology binder for all faculty to include assessment of skills, notes of one to one instruction and teacher self-evaluation sheet for completed lessons
• Assists classroom teacher with technology to include but not limited to PowerSchool, PowerTeachers, PowerGrade, Google Apps and any other district approved software in the classroom or lab setting
• Serves as source of information on trends, research, applications, and effective practices related to technology use within the curriculum
• Makes recommendations to the District Technology Administrator for the purchase of effective resources for faculty, staff and students
- Works with the Teacher-Leaders for Technology to plan professional development classes, workshops, trainings, and build support

Technology Assistance
• Install and configure computer software when needed
• Troubleshoot problems and provides support to all users
• Facilitates school participation in special instructional technology activities such as parent technology night and parent technology class opportunities

School Activities
• Attendance at core instructional meetings with the Technology Department
• Attendance at all faculty meetings
• Other duties as noted on the annual contractual agreement