North Olmsted City Schools Strategic Educational Technology Plan

A Part of the 2020 Initiative

NORTH OLMSTED CITY SCHOOLS MISSION STATEMENT

The mission of the North Olmsted City Schools – a partnership of students, staff, parents and the community dedicated to excellence – is to ensure that all students acquire the skills and knowledge to thrive in their future education and work by providing superior educators, programs and services, and expectations which maximize each student's abilities and aspirations.

NORTH OLMSTED CITY SCHOOLS CORE VALUES

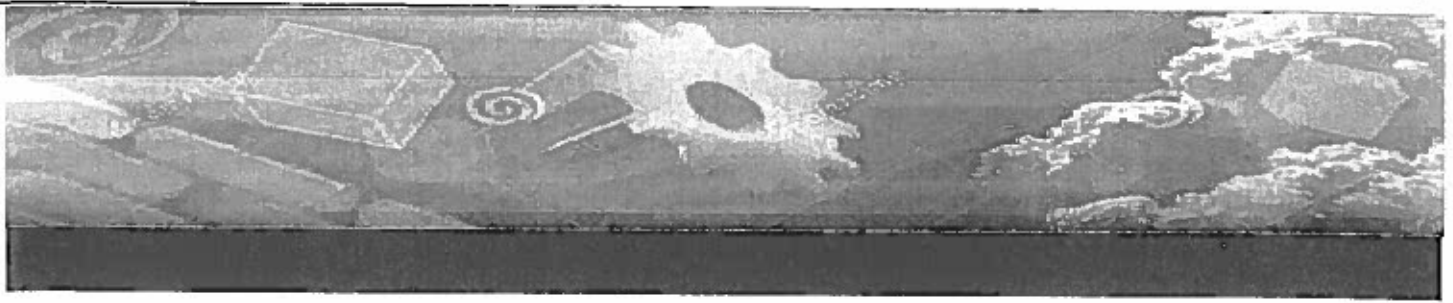The core values of the North Olmsted City School District are as follows:

INVITATIONAL: We value an inviting, vibrant and safe educational environment.

LEARNING: We value learning through rigorous, high-quality instruction, focused student support, and engaging student activities.

ENGAGEMENT: We value an engaging, collegial atmosphere with professional, ethical and respectful interactions that enhance learning in the schools and the community.

DIVERSITY: We value the unique experiences of individuals and the diversity of the North Olmsted community.

CONTINUOUS IMPROVEMENT: We value continuous improvement in all areas of the school district operations through encouraging data-based decision making, effective innovation, appropriate use of technology, responsible stewardship of financial and human resources, and professional development for faculty and staff.

TECHNOLOGY GOALS AND STRATEGIES

From the North Olmsted City Schools Strategic Plan

Technology is no longer "nice" to have – it is a required skill integrated into every area of our lives. Do we have the needed infrastructure, support and staff skill set to make sure our students will graduate with up-to-date and emerging technology knowledge?

Maximize efficient and effective uses of technology across all areas of school district operation.

- Investigate and encourage the use of using new and emerging technology in the classroom.
- Promote and support the use of emerging technology through the development of a mini grant program for teachers.
- Automate district operational practices when possible to increase efficiency as well as convenience for users and reduce costs.
- Review tech staffing requirements, job descriptions and expectations for current tech staff to ensure efficiency and cost effectiveness.
- Provide professional development opportunities for staff and teachers to investigate instructional technologies and encourage the use of emerging technology in the classroom.

Develop a 3-5 year technology plan for the school district.

- Convene a technology committee made up of representatives from each building as well as the technology administrative team.
- Develop a hardware and software purchasing, maintenance and replacement plan.
- Develop and maintain an accurate and more efficient inventory system for all hardware and all software.
- Upgrade networking resources and services to wirelessly connect all classrooms, teacher work areas and offices within the school district.
- Purchase computers needed for students to participate in required online state assessments.
- Research best practices and develop policies and procedures in pursuit of a district-wide BYOD initiative.
- Provide technology necessary for implementation of non-core academic content state standards in the area of the arts, music and physical education.

Study and analyze the district capabilities in all areas affected by technology.

- Conduct a full technology audit – both hardware and teacher integration levels.
- Proceed with action plans based on the results of the Tech Audit and Tech Plan.

Technology Goals & Goal Strategies

TECHNOLOGY VISION STATEMENT

In the Information Age, it is imperative that students are prepared to enter a world of work and higher education that is highly dependent on computers and other technology based support systems. All students must have frequent and meaningful opportunities to interact with technology. The use of technology to enhance student learning and teacher effectiveness should become a routine, ordinary occurrence at all age levels and in all curricular areas in the North Olmsted City Schools

In support of this vision, North Olmsted City Schools offers its Strategic Educational Technology Plan.

INTRODUCTION

In the fall of 2013, the North Olmsted City Schools initiated the development of a District Strategic Plan for school improvement. The purpose of the District Strategic Plan was to make it possible for the school board, district staff, students and community members to adopt a common understanding of the mission, beliefs, and strategies used to direct school improvement.

Considerable community and staff input was provided in the development and refinement of mission and belief statements as well as the identification of essential goals and strategies. As part of this process, one of the goals identified was ..
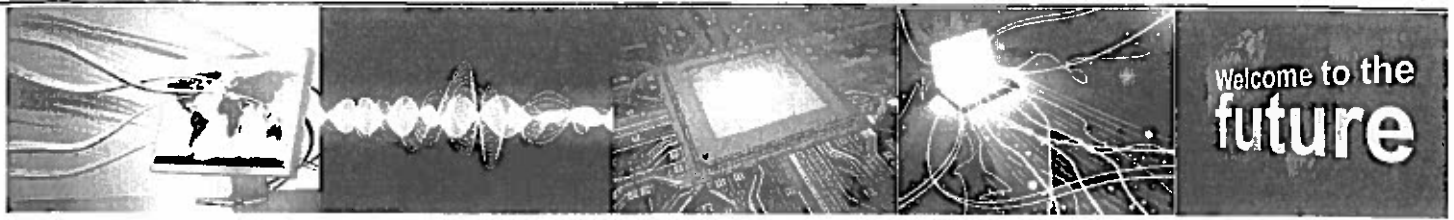
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A Technology Advisory Committee was identified to serve as an action team to develop this instructional technology plan. The committee, comprised of teacher representatives from each school in the district as well as a number of school district administrators and school district technology staff members met in December of 2014 and January, February and March of 2015 to develop this plan.

The committee agreed that the existing seven goals were all still valid goals and should continue to be the focus of the District's technology efforts. However, the wording of some of the goals was changed, in some cases to broaden the scope of the goal and, in other cases, to provide consistency in wording across the five goals. The seven goals are:

- Convene a technology committee made up of representatives from each building as well as the technology administrative team.
- Develop a hardware and software purchasing, maintenance and replacement plan to support scalability.
- Expect students, instructional staff, and administrative staff to be technologically literate.
- Enhance student learning in all subject areas by integrating technology use across the curriculum.
- Increase student and staff access to technology tools.
- Provide appropriate technical support for hardware and software.
- Provide students and staff with access to information and educational resources by upgrading the network infrastructure that will support district-wide use of technology as well as a BYOD initiative at the high school.

District Technology Audit Results—September, 2013

Topic: 21st Century Learning

- Students are asked to collaborate online with classmates at least monthly: 23%
- Students are asked to write online at least monthly: 16%
- Students are asked to identify and solve authentic problems using technology at least monthly: 33%
- Teachers ask their students to complete online assessments at least monthly: 25%
- Teachers spend less than 3 hours per year teaching digital citizenship: 87%
- Teachers who use assistive technology use it with students at least monthly: 64%

Topic: Technology Support

- Teachers rate the quality of tech support for problems disrupting instruction as excellent or above average: 19%
- Teachers believe they can fix technology problems they encounter: 65%
- Teachers perceive the quality of internet speed at school to be excellent or above average: 24%
- Students are part of a student technology support team: 10%
- Teachers rate the quality of LCDs or interactive whiteboards at school as excellent or above average: 35%
- Teachers rate the quality of devices at school as excellent or above average: 20%
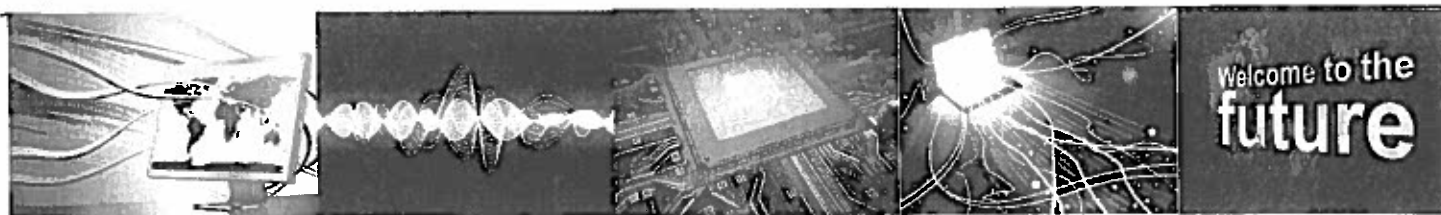
Topic: Infrastructure at School

- Teachers can get devices for their students when needed more than half the time: 54%
- Teachers report a typical student to computer ratio of 2:1 or 1:1: 62%
- Teachers report high quality internet speed: 24%
- Teachers have access to a computer for their own use all the time at school: 90%

Topic: Infrastructure at Home

- Teachers who have access to the internet at home: 99%
- Students who have access to the internet at home: 96%
- Teachers who have access to a device at home: 98%
- Students who have access to a device at home: 93%
- Teachers who share a device with other family members: 53%
- Students who share a device with other family members: 73%

Topic: Supervisory
- Teachers feel recognized for using technology in their teaching more than half the time: 11%
- Teachers report that technology is a topic at department or grade-level meetings more than half the time: 22%
- Teachers report that technology is part of classroom observations or visits more than half the time: 29%
- Teachers believe that school internet filters get in the way of learning more than half the time: 55%

Topic: Professional Development—Teachers

Foundational Skills - basic computing skills, sending email and creating spreadsheets:
- Teachers who find these tasks easy to perform: 59%
- Teachers have expressed interest in PD in this area: 18%

Online Skills—essential skills for contributing to and collaborating on the internet:
- Teachers who readily utilize these skills: 28%
- Teachers have expressed interest in PD in this area: 31%

Multimedia Skills—ability to manipulate photos and record and edit audio and video:
- Teachers who find these tasks easy to perform: 25%
- Teachers have expressed interest in PD in this area: 73%

Beliefs—how teachers feel about using technology for learning and in their daily life:
- 89% agree it enhances both

Digitial Citizenship Skills—responsible behavior when using technology—legal use of content, establishing a presence online, online safety, and cyberbullying prevention.
- Teachers who report being highly knowledgeable: 17%

Topic: Curriculum Report—Students

Foundational Skills - basic computing skills, sending email and creating spreadsheets:
- Percentage of students who find these tasks easy to perform: 22%

Online Skills—essential skills for contributing to and collaborating on the internet:
- Percentage of students who readily utilize these skills: 36%

Multimedia Skills—ability to manipulate photos and record and edit audio and video:
- Percentage of students who find these tasks easy to perform: 69%

Beliefs—how students feel about using technology for learning and in their daily life:
- 71% agree it enhances both

Digitial Citizenship Skills—responsible behavior when using technology—legal use of content, establishing a presence online, online safety, and cyberbullying prevention.
- 6% of students report being highly knowledgeable

Creating Success

|Care| |Hope| |Resilience| |College and Career Readiness|

Goals and Strategies
*****
Technology Hardware and Infrastructure

GOAL NUMBER ONE: Create 21st century classrooms. Each student should have access to a computer/device during every period (approximating 1:1 learning) and access the latest multi-media production software.

> 1. Develop a budget that supports ready access to technology for all students

GOAL NUMBER TWO: Classrooms should have state of the art digital presentation capabilities.

> 1. Complete the installation of Interactive White Boards for all teaching station in the K-5 buildings when K-5 buildings are reorganized
>
> 2. Classrooms in the new buildings will have this capability as part of construction

GOAL NUMBER THREE: Develop an infrastructure that permits adequate bandwidth be available to facilitate instruction without disruptions.

> 1. Obtain the switches and wiring to move the district to 500mbs form the present 200mbs.

GOAL NUMBER FOUR: A program should be in place to expand and replace technology on a scheduled basis including a contingency plan for emergency replacement and repair.

> 1. Develop a budget that supports the purchase and replacement of technology on a regular cycle
>
> 2. Develop a plan for the replacement of laptop computers assigned to teachers and administrators

GOAL NUMBER FIVE: Provide a mechanism for teachers to request software and hardware.

> 1. Encourage the creation of technology innovations by setting up a fund to which teachers can apply for the money for hardware and software for new/novel implementations.

Goals and Strategies
*****

Technology and the Teaching and Learning Process
(Using technology to prepare students for college and careers)

GOAL NUMBER ONE: All teachers will have daily access to computers for students and the district follows equitable practices for technology availability in the classrooms.

GOAL NUMBER TWO: Provide professional development for teachers that are interest-based and include a practical application component.

Assistive Technology

GOAL NUMBER ONE: Teachers have access in selection of hardware and software assistive technology that could expand to general education learners.

GOAL NUMBER TWO: Special education students will have equal access to technology for differentiation within heterogeneous classes.

GOAL NUMBER THREE: Teachers can request professional development at the time of their choice related to new assistive technology.

Digital Content

GOAL NUMBER ONE: When reviewing instructional resources, committees will examine digital resources that may be recommended for district purchase in lieu of printed textbooks.

GOAL NUMBER TWO: Blended learning opportunities (traditional and digital based instruction) will be made available to students as teachers develop digital presentation skills.

GOAL NUMBER THREE: On line courses will be incorporated into the curriculum to enhance opportunities for students.

GOAL NUMBER FOUR: On line and other digital course work opportunities will be expanded for credit recovery options

Goals and Strategies
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Technology Scalability
(Reaching all students in the school district)

GOAL NUMBER ONE: Develop an infrastructure in every NOCS school building that will support one-to-one learning with multiple types of devices.

- Research potential grants and sources of revenue to support one-to-one computing

GOAL NUMBER TWO: Develop and implement district-wide technology course of study for standards / expectations at each grade level.

- Provide professional development for teachers and staff as the availability of technology is increased and a course of study is in place.

GOAL NUMBER THREE: Repurpose technology hardware as much as possible when new technology is purchased.

GOAL NUMBER FOUR: When district buildings are reorganized, move computers located in labs in the K-6 buildings into classrooms to support technology integration into the curriculum.

Goals and Strategies
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Technology and School District Operations

GOAL NUMBER ONE: Update and use technology in the production of student report cards grades K-12.

- Study and map the current processes used for report card production and distribution—K-12.

- Determine the exact requirements for an electronically produced report card. This will include, but is not limited to:

    ◊ Ease of import of grade book data from Pearson Grade book

    ◊ Must be a multi-user system that will allow teachers to work on student report cards simultaneously.

    ◊ Must be customizable in format and content (standards-based, elementary, etc.)

    ◊ Report card data must be easily accessible to building administrators.

    ◊ Integrated with Pearson PowerSchool

- Ability to print hard copies or send report cards electronically.

GOAL NUMBER TWO: Automate the "Leave Request" process for teachers, administrators and classified staff.

- Streamline a current paper-heavy process, making it more efficient, effective and less time consuming for all involved.

- Route all leave requests through an pre-defined approval system

- Ability to check and upload leave data directly into the NOCS payroll system

- Measure and monitor leave request data through administrative reports. (balances, use, etc.)

GOAL NUMBER THREE: Implement the use of contactless smart cards with students grades K-12.

- Use student contactless cards to increase school security and emergency management.

- Automate attendance and hall monitoring practices.

- Automate food service payments and school fee payments.

- Use this system to monitor and locate students in real time, instantly when on school grounds.

GOAL NUMBER FOUR: Continually seek to move district operations from manual/paper-based procedures to digital solutions.

Creating Success

|Care| |Hope| |Resilience| |College and Career Readiness|

Technology Planning Committee

Beth Benjamin	Butternut Primary
Melanie Broud	North Olmsted City Schools
Nancy Burce	North Olmsted City Schools
Mandy Czech	Maple Intermediate
Anne Durno	Birch Primary
Todd Eberhardt	North Olmsted High School
Elizabeth Greene	Pine Intermediate
Hanno Haller	North Olmsted Middle School
Beth Holland	North Olmsted High School
Kelly Kalnasy	Pine Intermediate
Michelle Kocar	North Olmsted City Schools
Jim Koontz	North Olmsted High School
MaryK McDade	North Olmsted Middle School
Jennifer Meng	Maple Intermediate
Sarah Mitchell	North Olmsted High School
Missy Nudelman	Spruce Primary
Larry Orrach	North Olmsted City Schools
Lisa Phillips	Forest Primary
Melanie Reilly	North Olmsted High School
Pete Titas	North Olmsted High School
Joanna Tysko	North Olmsted Middle School
Gina Wanda	Chestnut Intermediate
Priscilla Wiles	North Olmsted High School

TECHNOLOGY	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Hardware for e texts								
for MS Math			$60,000.00					
for MS Social Studies			$20,000.00					
Hardware				$205,000.00	$275,000.00	$275,000.00	$300,000.00	$395,000.00
Staff Lap tops			$15,000.00	***	***	***	***	***
HS Labs			$35,000.00	***	***	***	***	***
Chromebooks for PARCC		$125,000.00	$120,000.00	***	***	***	***	***
Replacement Desktops			$15,000.00	***	***	***	***	***
MS Ind Tech Computers			$10,000.00	***	***	***	***	***
Tablets fro Principals for OTES (13)			$7,800.00					
NWOCA			$100,000.00	$100,000.00	$100,000.00	$100,000.00	$105,000.00	$105,000.00
NWOCA Internet Fees			$17,000.00	$9,000.00	$9,000.00	$9,000.00	$9,000.00	$9,000.00
Wiring Intermediate buildings			$41,000.00					
Access Points for Intermediate Buildigns			$56,000.00					
Baracuda Archiever			$13,000.00					
San Device for Servers			$6,000.00					
Vmware for ZEUS			$2,300.00					
Upgrade Connection Speed for PARCC			$30,500.00					
Projectors/replacement bulbs			$45,000.00	$35,000.00	$35,000.00	$35,000.00	$25,000.00	$25,000.00
System Software			$101,242.00	$100,000.00	$100,000.00	$110,000.00	$115,000.00	$115,000.00
Instructional Software			$135,000.00	$125,000.00	$130,000.00	$135,000.00	$140,000.00	$145,000.00
Computer Maintenance and Supplies			$25,000.00	$30,000.00	$30,000.00	$30,000.00	$35,000.00	$38,000.00
Replacement Printers and parts			$5,000.00	$5,200.00	$5,500.00	$5,700.00	$6,000.00	$6,300.00
Total Technology			$779,842.00	$609,200.00	$684,500.00	$699,700.00	$735,000.00	$838,300.00

TECHNOLOGY	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Chromebook Carts (30)								
Primary		2	9	0	5	4	4	4
GD 4-6			7	0	4	3	3	3
MS			10	0	0	4	10	4
High School		1 (OPAP)	4	0	4	4	4	4
							begin replacing machines from 14-15	
Laptops/Chromebooks				begin replacing laptops from 2011				
Teachers		35	25	80	80	80	80	80
Labs (30)								
Primary		2						2
GD 4-6		3						2
MS		2		1			2	2
HS	2	3	2				5	3