

Summary

The East Coloma-Nelson technology plan represents the district's vision and recommendations, based on the current technology status, critical components, and desired outcomes for instructional technology. This plan is a fluid document which can be revised as needed based on changes within the district. It is flexible, yet specific enough to serve as a guide in decision making and budgeting. A committee of administration and staff, along with parent and teacher feedback from surveys, have been used to help develop this plan. It has been developed to assist the district in allocating funds with a focus on the components that are identified within this plan. Those components are infrastructure, equipment, student learning choices, and training/professional development. The following plan specifies how the district will support the integration of technology in teaching and learning.

Infrastructure

The implementation of this plan must begin with an appropriate wired and wireless infrastructure that can support the increased number of devices needed on the network. East Coloma-Nelson has already begun to create an infrastructure consisting of switches, high density access points, and other hardware that will help meet the demands of the day. Cloud-based storage will need to be considered in the future to guarantee staff and students have access to their necessary files. This infrastructure will ensure learners experience a robust, filtered internet environment using a variety of technology to establish success in the classroom.

Equipment

East Coloma-Nelson will strive for every student to have a device in grades 3-8. This will be accomplished by using devices currently owned by the district while adding devices in deficient areas. Over the course of this plan, it is our hope that all students in grades 3-8 will have access to a chromebook. In 2022, when students

graduate from eighth grade, they will have the opportunity to purchase their chromebook at a price negotiated by the Board of Education.

Training and Professional Development

Ongoing sustained professional development must be a top priority for the success of our student learners and teachers alike. It must be integrated within all grade levels and content areas. Professional development must be differentiated to meet the needs of the various features and be available during and outside the scheduled workday. We must provide our staff with the appropriate tools so that they have the capability to effectively integrate technology into their curriculum and instruction. The technology aide that is already employed will work with staff to design and implement a variety of professional development for technology use across all content areas. The technology aide will also serve in the capacity of computer technician to ensure all systems are operating effectively. Our team will provide ongoing professional development throughout the year. Our technology committee will ensure that ISTE standards for educators are being used and implemented. A rubric will be created that will help evaluate our district meets the ISTE standards and follows the SAMR model. (ISTE standards and the SAMR model are attached.)

Board of Education Goal

The Board of Education requested the technology department to develop this technology plan. This plan will help guide the district decision-making processes throughout the next three years. It must include a timeframe for implementation including a cost analysis for meeting the goals. The Board of Education also asked that the team look at how this plan will be funded.

Committee Process

The recommendations contained in this plan provide direction for the Board of Education, superintendent, treasurer and staff in planning for technology initiatives. It is the goal of this committee to execute this plan to make significant impact on the educational experience of our students. East Coloma-Nelson has been using Microsoft Office 365 as an email, office suite, and more recently a classroom solution for the past seven years. Recently the technology committee has decided that the district will steer another way in an attempt to improve classroom technology, teacher-student interaction and collaboration. In making the move to Google Apps for Education most Microsoft products will have to be phased out. Phasing out will be done slowly and strategically as to not negatively impact the staff or students and will follow the SAMR model. Listed below are the steps our committee have taken to ensure success.

1. Surveyed staff and parents
2. Analyzed data from surveys
3. Visited a top tier school district and collected data (included in packet)
4. Developed a cost analysis for three years
5. Created a professional development calendar established to ensure implementation

7. Developed action steps and a vision for the next three years using SAMR model as a resource to ensure devices are being used properly (Defined in the back of the packet)
8. Plan to meet every month to ensure implementation

Committee Members

Julie Gallentine Middle School
Rebecca Shepherd Middle School
Jennifer Williams Middle School
Bree Naftzger 5th Grade
Andrew Blackert Principal
Chris Lensing Superintendent
Jarred Hippen Tech
Eric Hernandez Tech

Process

1. Surveys

Technology surveys were made available on the district website for parents in April and May. Staff was surveyed during the 2017-2018 school year.

2. School visit

Three members of the committee visited Geneseo school district. This district was recognized as a top technology district in the United States. (See attached notes)

3. Infrastructure

A new virtualized server will need to be prepared in order to support the new domain that is chosen for Google Apps for education.

The existing server infrastructure will have to be reevaluated to determine what machines can be retired and which ones will be repurposed to support the new arrangement.

Determining the projected load the network needs to be able to handle will be difficult until we know just how many machines we will be adding. Estimates will have to be made for the initial setup and then adjustments will be made to meet our needs. Meraki MR-52's (Multi Stream Access Points) will be added to provide faster, more adequate support to high traffic and high-density areas such as the middle school.

Preparation for the new domain controller for Google Apps directory synchronization will begin. This will be a virtual Hyper- V machine that is hosted on the new virtualized Hyper-V server this will provide machines with on-site domain resolutions.

Currently the district holds an open value licensing agreement with Microsoft. This agreement allows us to license Microsoft products such as Windows and Office 365 Pro Plus at will on any machine in our building. We will have to determine which machines require Windows and Office and individual licenses will have to be purchased for these machines. During transition, users will essentially have two email accounts. To mitigate problems, emails from the@ecoloma.net domain will be forwarded to the new domain. Once Office 365 has been retired, the@ecoloma.net domain will be migrated to the Google Apps interface.

4. Equipment

All classrooms have a SMART Board and projector. There are three portable computer carts with 25 computers on each of them. We will be ordering 50 Chromebooks that will be distributed in third grade and the middle school. 2018-2019, 2019-2020, 2020-2021 we will be adding 50 Chromebooks to 3rd and 6th grade. At the end of 2021 school year we will be 1:1 with technology in grades 3-8.

5. Training

All staff will be trained on the first in-service day August 13th on using Google email. This training will be conducted by our tech staff. Throughout the year we will offer five mini lessons for our staff on the use of Google Apps. Three of our staff members will be certified trainers through Google. This training will be done online through a free portal. The tech committee will provide surveys to the staff on further professional development needs. The SAMR model will be utilized.

Assignment of Accountabilities and Authorities

Technology Committee

1. Determine dates for milestones.
2. Determine training schedule.
3. Determine Chromebook model (currently five staff are piloting a device)
4. Monitoring feedback from staff and students

IT Department

1. Implement Google Apps for education
2. Determine Microsoft licensing needs and resolve potential conflicts.
3. Retire Microsoft products.
4. Prepare Chromebooks and determine needs for additional software management.
5. Ensure wiring is adequate to handle additional load.
6. Implementing servers and other hardware

Budget Allocation

The budget for this project is outlined below.

Chromebooks for the 2018-2019 school year \$11,000.00 (\$5000.00 from Invenergy Grant) 55 total devices.

Cost to individually license Windows when and Office installs-\$1600.00

Cost of additional networking infrastructure. (3-5 Meraki MR-52's/W licensing and 1 Meraki Switch plus any cost of running new Cat 6 lines for installation of new AP's)-\$1200.00

Vision

At the conclusion of the 2021 school year all staff will have been trained on Google Apps for education. All students in grades 3-8 will be 1:1 with technology. All of our staff will be familiar with the SAMR model. East Coloma students will be competitive with other students with technology in the 21st century.

SAMR Model

The Substitution Augmentation Modification Redefinition Model offers a method of seeing how computer technology might impact teaching and learning. It also shows a progression that adopters of educational technology often follow as they progress through teaching and learning with technology.

While one might argue over whether an activity can be defined as one level or another, the important concept to grasp here is the level of student engagement. One might well measure progression along these levels by looking at who is asking the important questions. As one moves along the continuum, computer technology becomes more important in the classroom but at the same time becomes more invisibly woven into the demands of good teaching and learning.

SAMR model developed by Dr. Ruben Puentedura

