

Going Digital: Technology in the School

Technology is a fact of 21st century life. Our students and their families have computers, cell phones, MP3 players, video game players, and much more. Small schools are often challenged to stay up-to-date with providing appropriate technology in the classroom. Some even question if we should have technology in the classroom. There are many good reasons to have and use technology in schools. A few of these include:

- Improve student achievement in reading, writing and mathematics
- Improve school efficiency, productivity, and decision-making
- Improve learning skills
- Help to meet the needs of all students
- Improve workforce skills
- Engage students in the learning process

The North American Division Office of Education has created the K-12 Technology and Distance Education Committee. The committee has been given the responsibility of researching issues in educational technology, developing Adventist distance education policies and guidelines, serving as a resource for distance education, and facilitating the integration of technology in the instructional process. Consult the TDEC website (www.nadeducation/tdec) to answer your questions or find resources related to incorporating and using technology in your school, including minimum computer recommendations for schools.

A technology plan is a critical component for using technology effectively. Developing and using a technology plan will help diminish technology-related crises, use staff time proficiently, and avoid wasting money on equipment. Create a plan that helps you think through your priorities so that technology is used in a way that directly furthers your mission.

These basic principles should be a part of your technology plan*:

- Ensure that planning is an organized and ongoing process that utilizes a simple planning model, and results in a plan that improves how technology is used for instruction, management, assessment, and communications.
- Take into account the mission and philosophy of the school.
- Be broad but realistic, with economical and technically feasible solutions.
- Involve key stakeholders—administrators, teachers, students, parents, technology experts—especially those with experience in education.
- Identify the school’s technology strengths and weaknesses and how each impacts technology implementation.
- Formalize procedures and methods for making technology decisions which includes priority setting, purchase, evaluation, upgrading, and use of technology.
- Be driven by educational goals and objectives, not the latest technological developments.

Why Technology?

Technology and Distance Education Committee (TDEC)

Technology Plan

*Basic Principles of Technology Planning” by Learning Point Associates. Retrieve 10/28/2010 from www.ncrtec.org/capacity/guidewww/basic.htm.

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The TDEC website (<http://www.nadeducation.org/tdec/1/8>) provides some templates your board can use in creating a technology plan for your school.

Tips for Using Technology in the Classroom

- Integrate the Internet into a unit of study by setting up a learning center. Find a website with the information needed for one component of the unit. Post the Internet address and clear directions for the assignment near the computer. As students work independently or in small groups, they can rotate through the computer learning center. Continue to monitor computer use as you move throughout the classroom.
- Manage time on the Internet. Encourage students to make good use of their computer time. Before class, bookmark the sites that should be used with the lesson. This allows students to focus on content, rather than undertaking a time-consuming search. Bookmarking also eliminates the simple errors that are frequently made when typing in web addresses.
- Organize information on the Internet. Create a graphic organizer (many can be downloaded free) for students to use as they research on the web. The Internet provides such a wealth of information that students frequently find it difficult to limit their research. A graphic organizer helps learners choose concepts and facts that fit the assigned topic. Students whose learning styles are more visual will also find these organizers helpful.
- Use computer software to assist in organizing information from the Internet or to use Internet data to supplement or enhance presentations. For example, have students create a database of Internet information they have organized. This could consist of countries of the world in social studies, various polygons in math, animals in science, or short stories in English. Students can learn that the Internet is a tool we can use to enhance our presentations.
- Teach students to cite Internet sources. Build a respect for the work of others by requiring the citation of Internet sources. To cite an online source, have students consistently adhere to a recognized style, such as that established by the Modern Language Association (MLA) or the American Psychological Association (APA). Students should also cite video clips, sounds, images, and e-mail. Citation machine (www.citationmachine.net) is a website that will help students create accurate references.
- Don't forget to make time for your own professional development. Use the Internet to become an expert in the subject matter you're teaching. Browse for creative ideas and lesson plans shared by other teachers. Do online tutorials to learn new applications. Take online courses to keep your qualifications up to date or to earn a degree and advance your career. All of this and more can be done from the comfort of your kitchen counter.
- Use the computer for independent student review/reinforcement of ideas. A variety of free software is available to assist students in reinforcing learning . . . math skills, spelling, etc.
- Model the use of technology. Use a learning management system or grading program to maintain your grades, keep in contact with parents and prepare instructional materials. Use the computer to generate tests, worksheets and displays; to display notes, quizzes, video clips, etc.;

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to create graphs and charts for science classes; to demonstrate the basic use of the computer and skills required to use it; and to review information and for drills. Presentation software can be used to create slides and other multimedia and graphic presentations that will support lectures and can be used for a host of other display purposes.

- Set up an “information station” in the classroom. It can be used to access CD-ROM encyclopedias and other sources for research pictures and video and sound clips, and to access libraries, projects, databases, addresses, etc. through the Internet. Students can be encouraged to use this “station” to quickly access information: online dictionaries, thesauruses, encyclopedias, atlases, calculators, spell checkers, etc.
- Use desktop publishing software to prepare monthly class magazines, newsletters, and anthologies; a classroom journal or ongoing story center; brochures for projects; and materials to be published on the web.
- Set up a computer Learning Center. Specific software can be used to reinforce or remediate skills through drills and practices. You may choose to vary the “theme” of this center as you rotate your classroom learning centers. The computer can be used to provide access to information, engage the students in exploration and provide tools for organizing and manipulating data on a topic of your choice. Other ideas for a learning center may include a “virtual field trip” center or a “virtual science experiments” center.
- Use the computer as a multi-media chalk board or flip chart. Connect the computer to a projector for a variety of applications. For reading, draw story webs, and have the computer read vocabulary words. For writing, demonstrate writing or editing skills and concepts like adding descriptive words to a sentence or rearranging the sequence of words in a sentence to change the meaning. Record information from a group brainstorming session that introduces a new unit. Use a spreadsheet for graphing simple survey information or create bar graphs or pie charts for math/science.
- Use the computer as a cooperative learning tool. Use for writing, organizing, synthesizing, brainstorming, comparing, contrasting, creating a group story, etc. Assign roles related to computer use: typist, graphics locator, timer, reader, editor, spell checker, etc.
- Use the computer for long-distance communication. Consider having the class correspond with one significant person . . . an expert in a field related to what you are studying, a counterpart in another school or country, etc. There are online services where experts, in a variety of fields, stand ready to answer children's questions. Many of these services have archives on their web sites of previously asked questions. Programs such as Skype provide easy ways to communicate with family members or others who may be far away (i.e., grandparent “read us a story” times, “show and tell,” etc.). You may also wish to consider online class pen pals from around the world, especially with other Adventist students in schools around the world.

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- Take a Virtual Field Trip with Your Class. Use a projector or TV to enlarge the computer screen. Visit a museum site or other location related to your curriculum topic. Have students take turns controlling the mouse as the whole class participates in a discussion of what you find. If the site has an email feature, have the students come up with some questions to ask the experts at that site. Children can also write about their experiences. The website might be left up during the writing time so that children can refresh their memories and check information as needed. Prior to the virtual trip, the students could read about the place from books, articles, or other websites. They could then formulate questions that they have. During the virtual field trip they could find answers to their questions. After the virtual field trip, they could compare the information from the text that they read to the information found on the web site.
- Use digital cameras to enhance instruction. Ideas include: have K-2 students take pictures of all the objects they see (in the classroom and/or playground) that begin with the letter they are studying that day; use pictures from a class field trip to create a bulletin board or slide show for parents.
- Use available teacher-created webquests. Scores of teacher-created webquests are available for immediate use in the classroom. Several sites provide indexes which are searchable by grade and subject area.
- Use the computer as part of morning routines. Morning routines may include such things as memory verse or Bible text of the day (which can be displayed on screen), "word of the day", news and weather, what happened today in history, etc.

Student Information Systems

Most Local Conference Offices of Education use electronic systems for recording and storing data that in the past has been recorded in Daily Registers and grade books. Keeping accurate records is essential for staying organized and for meeting denominational and state/provincial legal requirements. Your Local Conference Office of Education will help you in maintaining the most current NAD Student Information Systems and will provide information on updates. In addition, the NAD website provides tutorials and web support for streamlining your record-keeping (www.nadeducation.org/tdec).

Code of Computer Ethics for Teachers

When using your school's technology resources, consider your Christian, ethical, and professional responsibilities. Some guidelines* to follow include:

- Respect privacy
 - Do not post information about students or colleagues without their explicit consent.
 - Do not give students access to cumulative records or other private information.
- Respect ownership
 - Do not post material authored or created by another without his/her consent.

Adapted from "Code of Computer Ethics for Educators" by Bates, Engle, et al. Retrieved 10/28/2010 from irs.ed.uiuc.edu/students/mickley/ethicsnew.htm.

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- Respect the Network
 - Refrain from using network or computer resources to store excessive amounts of data, especially non-job related data.
- Understand Your Duty to Educate
 - Discuss with students what ethical standards are expected to be followed when using school technology.
 - Make every effort to insure that students will not be exposed to inappropriate materials while using the Internet.

Take special care to ensure that all technology activities and resources are in harmony with Biblical principles and church standards.

“Finally, brothers, whatever is true, whatever is noble, whatever is right, whatever is pure, whatever is lovely, whatever is admirable—if anything is excellent or praiseworthy—think about such things.”

Philippians 4:8

Check with your Local Conference Office of Education to see if they have any written guidelines for teachers on the use of Facebook and other social networking sites. In the absence of such guidelines, each individual must establish his/her own guidelines. The following guidelines may prove helpful.

- Do not accept students as friends on personal social networking sites. Decline any student-initiated friend requests.
- Do not initiate friendships with students.
- Remember that people classified as “friends” have the ability to download and share your information with others.
- Be cautious and use networking protocols that restrict access when using social networking as a part of the educational process.
- Visit your profile’s security and privacy settings. At a minimum, educators should have all privacy settings set to “only friends”.
- Do not use commentary deemed to be defamatory, obscene, proprietary, or libelous. Exercise caution with regards to exaggeration, colorful language, guesswork, obscenity, copyrighted materials, legal conclusions, and derogatory remarks or characterizations.
- Weigh whether a particular posting puts your effectiveness as a teacher at risk.
- Post only what you want the world to see. On a social networking site, basically once you post something it may be available, even after it is removed from the site.
- Do not discuss students or coworkers or publicly criticize school policies or personnel.
- Do not post images that include students.

Social Networking Websites and the Teacher

Adapted from The Blue Skunk Blog, “Guidelines for Educators Using Social Networking Sites” retrieved November 12, 2010 from <http://doug-johnson.squarespace.com/blue-skunk-blog/2009/8/7/guidelines-for-educators-using-social-networking-sites.html>.

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Acceptable Use Standards for Students

Many schools have implemented Acceptable Use Policies (AUP) to ensure that school computers are used in a safe, relevant, and appropriate manner. The AUP serves as a written agreement among teachers, parents, and students that describes the terms and conditions for Internet use, defines access privileges, defines the rules of online behavior, and outlines the consequences of violating the rules.

An Acceptable Use Policy should have the following components*:

- Descriptions of the instructional purposes for Internet access
- Statement that explains computer or computer network availability to students and staff
- Statement about the educational uses and advantages of the Internet
- Code of conduct to govern behavior while on the Internet
- Description of the consequences for violating the AUP
- Description of the rights of individuals using the computer or computer network
- Disclaimer absolving the school, under specific circumstances, from responsibility
- Statement that the AUP is in compliance with state/provincial and national telecommunication rules and regulations
- Form for teachers, parents, and students to sign indicating agreement to abide by the AUP

Check with your Local Conference Office of Education to see if they have an approved **Acceptable Use Policy** (see sample in Chapter 19).

Other forms of technology are becoming more commonplace in small schools. Cell phones, MP3 players, smart phones, iPads, etc are only a sample of the technology students are bringing to school every day. If your handbook does not have a policy addressing the use of these technologies in school, ask your board to develop one. Check with your Local Conference Office of Education for any policies or suggestions they may have.

Photo Release

Before using any photos of students in any school publications, it is imperative that a **Photo Release Form** (see sample in Chapter 19) is signed by the student's parent/guardian. This form states that the parent/guardian either gives or declines permission for photos or likenesses of their child be used for any printed purpose by the school. This form should be included with registration materials.

Be aware that this permission does NOT cover photos used on social media networks such as Facebook or My Space, etc. Do not use student photos on these or any similar websites.

Adapted from "Writing an Acceptable Use Policy for Your School" by Bruce Wentzell. Retrieved October 28, 2010 from http://catnet.sdacc.org/resources/res_ID7.pdf.

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The North American Division Technology and Distance Education Committee is committed to hosting relevant and useful webinars for Seventh-day Adventist educators. Professional Activity Credit (PAC) may be earned by taking part in the webinars. Check the TDEC website (www.nadeducation.org/tdec) for specific information regarding the time and content of these webinars.

TDEC Webinars

The *Curriculum and Instruction Resource Center Linking Educators* (CIRCLE) serves as a comprehensive source for locating the ever-expanding array of resources for Seventh-day Adventist educators. It is sponsored by the North American Division Office of Education, supported by the General Conference, managed from Andrews University, and hosted by Walla Walla University.

CIRCLE

CIRCLE's database includes resources in every curriculum area, administration, technology, etc. Many North American Division Office of Education resources are linked through CIRCLE. The database gives the Internet link and/or land address for obtaining the resource. Check it out at circle.adventist.org.

It is important for every school to maintain a current school website to market their school, share information with parents, etc. AdventSource provides a free school or church website through Adventist School Connect. You can find additional information at www.adventistchurchconnect.com.

Website

"We are currently preparing students for jobs that don't yet exist . . . using technologies that haven't yet been invented . . . in order to solve problems we don't even know are problems yet."

Richard Riley

“No other work committed to us is so important as the training of the youth, and every outlay demanded for its right accomplishment is means well spent.”

Ellen G. White
Education, p. 218