Enhancing Your 4-H Club with Technology

While technology has the capacity to expand our world of experience, it also has the ability to isolate us from those around us. Contrast the vast possibilities of the Internet with a lonely teen texting in a crowd of friends s/he has yet to meet.

4-H believes members should learn about technology as a means to better communicate and develop skills that will transition as new technologies emerge. In this sense, technology should be seen as a tool to advance what 4-H has been doing for many years. The focus should be on generalized skills that may be transferable. For more information on 4-H and technology see *Science, Engineering, and Technology: A National 4-H Mission Mandate.*

Another thing to remember with technology is that there are times when a goal may be accomplished more easily without it. For example, basic math may often be done without a calculator.

How?

There are many ways that technology might assist your club. If you are unfamiliar or uncomfortable with technology, your county 4-H staff/faculty may be able to help. Check with parents and even club members; they may have equipment or experience to help you use technology to enhance your club's experiences.

Communications

Digital Video Cameras

As your 4-H club or group does an activity have members record it with a camcorder. Most camcorders include software and cables that will allow you to transfer footage to a computer for editing. There are many simple editing tools available. It is likely that one was included with your computer's operating system (Mac or Windows).

Members may choose to edit the footage and create a short video using effects such as background music, title cards, and possibly special effects. The final version may be burned to a CD/DVD or possibly posted to a web video site (with appropriate precautions and permissions).

The software included with your computer's operating system (Moviemaker on Windows or iMovie on Macintosh) is easy to use. Members may actually enjoy taking on a video project. Club video projects are a great way to document activities and express creativity.

Digital Cameras (still photography)

Digital cameras are now widely available. Models range from basic to highly technical and are even built into cell phones and other electronic devices. Members should be encouraged to document your club's events (fundraising, fair, community service, etc.) Combined with a simple press release, you can share information about your club.

Photography should also be encouraged as a means of expression and an opportunity to collect information that may be included in digital record books. Pictures can help members capture memories and experiences throughout their 4-H career. If you or others have skills with software programs such as *Photoshop*, you can help members learn how to improve and experiment with

photographs. This could include basic skills such as cropping, correcting color, and adjusting exposure. Your club members may share their images at club meetings or on the web using sites such as *Flickr* and *Picasa*.

Opportunities for Photography and Videography

(See *4-H Events* for more information.)

- Parades

- Publications

- Field trips

- Community service events

- County 4-H fair

- Demonstrations or guest speakers during club meetings

- 4-H parties (Halloween, holidays)

Possible Projects:

- Video slide show of the club's 4-H year (set to music)

- Video with still and video footage with voiceover descriptions and music

- A club display with photos and captions for events such as the county fair and conferences

- A club scrapbook that includes pictures, captions, and stories

Blogging and Websites

In recent years, websites have come forward that can assist you in developing a simple web presence for your club. A web presence can be a useful resource for things such as listing club meetings, recruiting new members, and sharing information. All of the sites listed below are available at no cost:

- *Yahoo! Groups* (groups.yahoo.com): a Yahoo! Group is any group that uses Yahoo! Groups to privately share info, images, ideas, and more on the web.

- *Google Calendar* (google.com/calendar): allows you to setup a free online shareable calendar service that may be accessed by your club's members and parents.

- *Blogger* (www.blogger.com/start): a blog is a web site, where you write stuff on an ongoing basis. New stuff shows up at the top, so your club members and parents can read what's new. Then they comment on it or link to it or e-mail you.

- *Wordpress* (wordpress.org): WordPress is a state-of-the-art publishing platform with a focus on aesthetics, web standards, and usability.

Developing online club resources can save you time scheduling for your club while improving your communication with 4-H members and parents. If you are uncomfortable setting up these resources, see if a parent or club member (or a member/adult team) would be interested in taking this on as a project for the club. Be sure to follow NJ 4-H website policy: www.nj4h.rutgers.edu/policies/web-policy.pdf.

Using Technology to Enhance 4-H Events

Public Presentations

Video recording is an excellent way for 4-H members to rehearse and refine their public presentations. Members can watch with leaders and adults to evaluate areas for improvement. In time, technology may allow us to add videos of presentations to the digital record book format.

Interested 4-H members might use the videotaping of club presentations as an opportunity to practice and develop video shooting and editing skills. Do you have access to more than one video camera? Have members record from different angles. Have one member use a tripod and another take hand-held footage.

Video recordings of presentations may be shared (with appropriate permissions) on sites such as *YouTube*. Friends, relatives, and those unable to attend the live presentation will be able to enjoy it. This can be a great way to share the 4-H experience!

Demonstrations

4-H club members could develop a demonstration related to your club's activities. With appropriate permissions the video demonstration could be posted on a public or private sight for viewing (ex., *YouTube*). An extension to this would be to add a link from your blog or website.

There are resources available online and through your library that may help 4-H club members develop a video project. Resource guides help members organize and develop basic skills needed in the process of storyboarding, scripting, planning, shooting, and editing a video project.

Project Record Books

Project record books are being converted to a digital format that will allow 4-H members to maintain them on a computer. All of the information 4-H members currently record in their project record books will remain the same. However, the digital format will make it easier for members to add pictures as a supplement to the *4-H Story* and *Events* sections.

The digital format should also assist 4-H members in maintaining and retaining their record books over successive years. This will allow 4-H members, parents, and leaders to monitor and reflect on member's growth over time. In some project areas, data collected may allow members to practice research skills (see *Record Keeping in 4-H* for more information).

Spatial Information

GPS

The Global Positioning System (GPS) is a global navigation satellite system. While GPS has many applications, it is often used for navigation purposes. It uses a constellation of satellites that transmit signals allowing GPS receivers to determine location, time, and velocity. Some of the applications for GPS include map-making, land surveying, commerce, scientific uses, and hobbies such as geocaching.

GIS

A geographic information system (GIS) captures, stores, analyzes, manages, and presents data that refers to or is linked to a location (the location is often acquired by a GPS unit). GIS software applications are tools that allow users to create searches and analyze spatial information, edit data, create maps, and present the results of all these operations. While GPS and GIS may sound complicated, there are ways for 4-H members to gain experience with this technology.

GPS/GIS projects for Your Club

Geocaching

Geocaching is an outdoor treasure-hunting game in which the participants may use a GPS to hide and seek containers (called "geocaches" or "caches"). A typical cache is a small waterproof container containing a logbook and "treasure," usually toys or trinkets of little value. There are over 823,000 geocaches registered on various websites devoted to the pastime. Geocaches are currently placed in over 100 countries around the world and on all seven continents.

Questing

A questing course may also be set up interpretively to provide information about natural features or social history of an area. Much like a scavenger hunt, a quest leads participants from location to location, often using poetry and riddles as clues.

Take a Hike—Make a Map

Take your group on a short walk using a handheld GPS unit. The GPS should have a function that allows you to track your trip. When you return, you can download/import the data collected from your unit into a simple GIS program such as USA Photomaps (jdmcox.com). This type of software will allow you to superimpose the GPS data over a map and add additional information.

Invite a local GIS professional to your club to tell you about how GIS/GPS technology is being used in your community. Contact the NJ Geospatial Forum (https://njgin.state.nj.us/OIT_NJGF/index.jsp) to locate a professional in your area. Also, see the Rutgers Center for Remote Sensing and Spatial Analysis (deathstar.rutgers.edu).

Music

Software exists such that 4-H groups may record and edit music they have written and/or recorded. Working with music in this way is a great way to learn about the recording industry and expand a member's interests. What should be discouraged is the manipulation of licensed (copyrighted) materials (those recorded by commercial artists). Trading or using this music for video projects (while widely practiced) is inappropriate for 4-H members. Respecting the rights of artists by not doing this is where character counts.

Science/Technology Projects

There are many sources to support and assist 4-H members with science or construction projects. Downloading directions or even uploading successful projects may be a great way for 4-H members to get hands on engineering and technology skills. In some cases the materials or construction processes may be beyond the 4-H member's capacity. This is where the guidance and help of an adult or teen mentor can make all the difference. Check out some of the resources below for club projects or for a member in your club:

- *Instructables* (instructables.com): a web-based documentation platform where people share their enthusiasm for what they do and how they do it. You can learn from and collaborate with others.

- *Make Magazine* (makezine.com): MAKE Magazine brings the do-it-yourself mindset to all the technology in your life. MAKE is loaded with exciting projects that help you make the most of your technology at home and away from home. This site celebrates your right to tweak, hack, and bend any technology to your own will.

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