



MCCE NEWS

MONTANA COUNCIL FOR COMPUTERS
AND
TECHNOLOGY IN EDUCATION

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November 2005

Podcasting in the classroom

by *Desireé Caskey*

We have been able to play broadcasts over the Internet for some time but a new revolution is hitting the technology world...and the education world – **PODCASTING!**

Podcasting is a web-based broadcast medium in which media files are made available to you online, allowing software to automatically detect and download new files.

A **PodCast** is comparable to an audio magazine subscription in that the subscriber receives regular programs that he/she can listen to or view at his/her own leisure. Think of it as TiVo for your audio needs.

So what kind of information can you get? Think of the subject directories you see in a search engine (News, Entertainment, Sports, Science, Shopping.....) and you will see the same type of directories for podcasts.

Some podcasts I subscribe to are:

NOVAScience Now
NPR: Story of the day
InsideTheMac news
(There are even podcasts about biking)

You don't need an Ipod or a Mac to participate in podcasts, or to make your own podcast, just visit a couple of sites to see what all the fuss is about.

- <http://www.podcast.net/>
- <http://www.wnyc.org/about/podcasting.html>
- <http://help.ziepod.com/index.php?pid=050811091346>
- <http://en.wikipedia.org/wiki/Podcast>

You'll need a program on your computer to gather up your podcasts. This is called an aggregator. Windows users will find Ipodder handy:

<http://juicereceiver.sourceforge.net/index.php>

GPS provides high-tech navigation tool for the classroom

by *Vince Long*

Unlike other curriculum areas, the sciences have no shortage of technological devices to enhance and support their activities. Everything from the microscope to the gas chromatograph provides the opportunity to engage the student in both scientific inquiry and the use of technology. Recent innovations have, in just one generation, propelled science classes from using tools that would look familiar to their parents to the use of lasers, superconductors, and a variety of probes connected to portable computers.

While some innovations can dramatically change the way we do things, it sometimes takes patience while that technology tickles down and becomes accessible and affordable. A case in point is the GPS receiver. These devices receive signals from satellites and provide information about the receiver's location on the earth. When first available, the cost for a receiver was in the thousands of dollars but now they are readily available under \$100 from most major retailers. Before we look at some uses in the classroom, let's review the history of the GPS and see how we gained access to this incredible resource.

The Global Positioning System (officially called NAVSTAR GPS - Navigation Signal Timing and Ranging Global Positioning System) was designed for use by the U.S. Department of Defense for strategic purposes and was first

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PRESIDENT'S COLUMN

by Staci Auck

Greetings-

Let me introduce myself as your new MCCE president and tell you a little bit about myself. Born and raised in Eastern Montana (or West Dakota to my Western Montana friends), I currently live and teach in Hobson. I have taught at J-I, Flathead High School, Townsend and I even did a short stint in a country school teaching kindergarten for a couple years (wonderful experience but a long story that I would enjoy sharing some other time).

I wear many hats in my small K-12 school... math teacher, computer and business teacher, technology coordinator, BPA advisor, and coach. And somewhere in between I am supposed to be raising a young son and daughter. Most days I feel like a jack of all trades and a master of none. So when I heard of MCCE, I knew this is a group I needed to join because when you are the only person in your department, being able to network with others that have knowledge and experience to share is exactly what I needed.

MEA is an important part of my year as this is when I can attend the in-service of my choice as I am able to decide which sectionals I would like to attend, which is unlike most PIR days as we all know. In addition to belonging to a group of technology leaders I also come back home with some new technology information and ideas. MCCE has a lot of other good things to offer, such as...

a stipend of \$20 for presenting at MEA/MFT; a general meeting on Friday with a free lunch, and a great hospitality room; a membership discount to ISTE; a technology listserv; and the Montana's Outstanding Technology Using Educator Award. Please nominate someone or yourself. There is a \$500 award with a very nice plaque. The nomination forms will be posted online and the deadline is September 1. The winner will have their information forwarded on to the ISTE Outstanding Technology Using Educator Award.

For those of you who missed the MCCE general meeting, you missed a great lunch from McKenzie River Pizza and the opportunity for some nice door prizes. Bob is finally a "winner" this year! - a very nice gift certificate to Best Buy that was donated by Jennifer Arns from OETC (www.oetc.org) who explained their aggregated buying service to get low prices for software for schools. She also

discussed the techhead.org site to which students of member schools can buy software at a discount. We also discussed getting a keynote speaker for next year (which is already in the works).

A big thank you to Bob Gunderson, Randa Froebel, and Desiree Caskey for doing so much work this MEA... the t-shirt sales, hospitality room, membership desk and MEA planning were organized by these three. We dubbed Archie Harris the "recruiter of the year" and Vince Long deserves so much more credit than just the title of the newsletter editor for all he does and articles he submits. Thanks again. Also thanks and welcome to Jan Van Dyke as a new member to the board and Tami Scott as the new secretary.

This last year MCCE began to take part in "TechTalk" which is an interactive video discussion hosted throughout the state at various METNET and VisionNet sites. Watch for information to arrive through the MCCE listserv and please encourage anyone you know to attend these discussions. Tentative dates are:

Tuesday, November 29, 2005, 3:00 - 5:00 p.m.

Tuesday, February 28, 2006, 3:00 - 5:00 p.m.

Tuesday, April, 25, 2006, 3:00 - 5:00 p.m.

You can contact Terry Lankutis at LankutisT@aol.com for more "TechTalk" information and site locations.

Until next time...

MCCE NEWS

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**Next Submission Deadline:
December 12, 2005**

**This and past issues of MCCE News are available on the World Wide Web at:
<http://senior.billings.k12.mt.us/mcce/>**

Creating Templates

by Desireé Caskey

Ever want to create a template? We all do, so here is an easy trick to make a file STAY as your template.

PC Users:

- Create a document and save it (might want to put template in the name).
- Close the document.
- Locate the file.
- Do NOT open it.
- RIGHT click on the file and select Properties.
- Check the Read Only box and click OK.

To make changes in your template, go through the above process, but uncheck the Read Only box.

Mac Users:

- Create a document and save it (might want to put template in the name).
- Close the document.
- Locate the file and highlight it. Do NOT open it.
- From the File menu, choose Get Info (or key Apple-i).
- In the Get Info box, click on the Lock option and close the window.

To make changes in your template, go through the above process, but uncheck the Lock box.

Note: Most programs now have a feature built in to save the document as a template. But there is always more than one way to do something. Make sure all of your information is in the document before saving it as a template.

WANTED

Newsletter Articles for MCCE News

Software Reviews,
Classroom Technology Tips, Student-
Written Stories, Web Site Reviews

Goal: Increase writing and reading

Solution: BLOG!!

by Desireé Caskey

If you want to increase the amount of writing, journaling and reading... why not let technology help. Incorporating blogging into the writing process gets kids interesting in writing. Online journaling – that's what blogging (or web logging) is.

According to the Wikipedia site:

There are many educational applications of blogs. Students can use weblogs as records of their learning and teachers can use weblogs as records of what they taught. For example, a teacher can blog a course, recording day-by-day what was taught, including links to Internet resources, and specifying what homework students are required to carry out. This application has many advantages: (1) a student can quickly catch-up if they miss a class; (2) the teacher can use the blog as a course plan; and (3) the blog serves as an accurate summary of the course that prospective students or new teachers can refer to.

There are other educational applications of blogs. Students can blog an educational excursion, recording day-by-day (or hour by hour) where they went, what they saw and what they learned - including photographs, audio or video. The collaborative features of blogs can be used to permit several students to contribute to the blog.

To learn more about blogging, start with these sites:

<http://awd.cl.uh.edu/blog/>

http://www.educationworld.com/a_curr/voice/voice123.shtml

<http://www.bazeley.net/edblog/>



**Join ISTE, the national voice for the
Montana Council for Computers and
Technology in Education.**

<http://www.iste.org>

GPS

(Continued from Page 1)

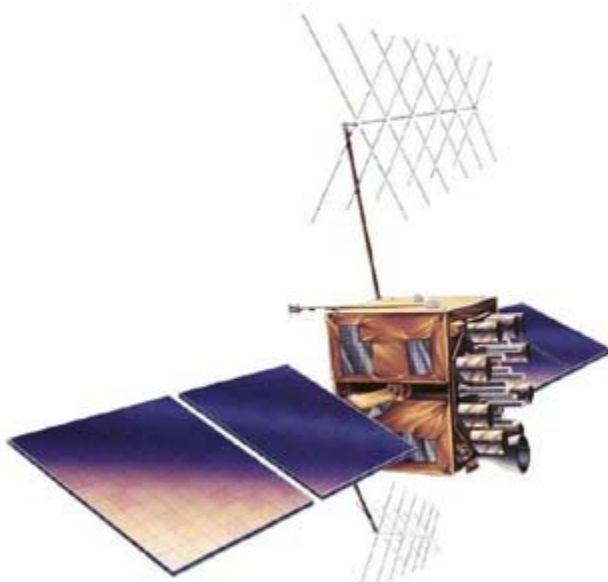
put into service in 1978. It consists of a “constellation” of 24 satellites that orbit the earth twice a day at an altitude of 12,600 miles. The system has cost \$5.6 billion to deploy and another \$750 million annually to maintain. Satellites do wear out at the rate of about two per year and are replaced with new ones. The Air Force is responsible for deployment of the satellites and also operates the ground stations that communicate with the satellites to keep them synchronized and to update their software.

Each satellite has an atomic clock, accurate to 40 billionths of a second, and uses this information to broadcast data to receivers on the ground. When a receiver picks up signals from three of the satellites, it performs a series of calculations that compare the timing signals from each satellite and uses this and other data to determine the receiver’s ground location. If a fourth satellite is used, elevation can also be computed. Location accuracy, using various error correction techniques, is about four inches, however, for many years that level of accuracy was accessible by military users only. In 2000, “Selective Availability” was turned off which made it practical for non-military users to take advantage of this free, world-wide system. Not to be outdone, or at the mercy of the American system, the European Union is deploying its own GPS system called Galileo Positioning System and the Russians have their own called GLONASS (Global Navigation System).

GPS receivers come in a variety of configurations. For the non-military user, they usually look like a small computer with a screen and a series of buttons. Depending on the model, users can see anything from basic latitude and longitude to highly detailed maps that move as the receiver changes its location. They are extremely useful in a variety of transportation applications and can be found on cars, trucks, boats, airplanes, and even in harvesters. They have revolutionized the field of land surveying and currently there are several ventures using GPS to create navigation

systems for the visually impaired.

Handheld GPS receivers are popular with hunters and hikers who can use a “tracking” features which record the receiver’s movements allowing the user to “track back” to their starting position. Runners can wear a wrist-mounted model that records their distance and pace. Most receivers can be connected to a computer for data exchange. Maps can be installed in the receiver and tracking data can be brought to the computer for analysis.



These innovations coupled with the low cost of receivers, makes GPS a natural to integrate into the science curriculum, especially in earth science. Learning about latitude and longitude can move from the printed page and classroom globe to the real world where students can carry a GPS receiver and see the latitude and longitude change as they move. Students in Kodiak, Alaska have been taking GPS reading across a “strain zone,” the site of a massive earthquake in

1964, to measure the movement of the earth over time. Students can use GPS to develop their own maps, including maps that feature contour lines. Coupled with the Geographic Information System (GIS), students can combine a wealth of data with GPS readings to analyze their local environment.

Once “Selective Availability” was turned off, giving GPS receivers a high level of accuracy, a new hobby was born called “geocaching.” This is essentially a treasure hunting activity where someone hides something, posts its coordinates to a website, and others use their GPS receivers to find it. In practice, the treasure can be of several types. The most common is the “traditional cache” which is an ammo box, Tupperware, or other waterproof container. In the cache you would find a logbook and pencil for recording your find and an assortment of trinkets to select

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GPS

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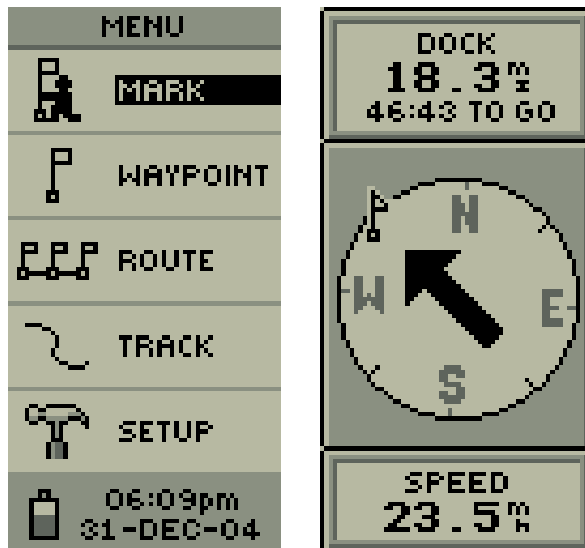
for your prize. The etiquette of the game says you should leave a trinket in the place of the one you take and trinkets range from toys, to CDs, batteries, to money. Once you make the find you post that fact back on the website:

<http://www.geocaching.com>

Some caches are very small, usually a plastic film container. Caches are hidden in publicly accessible places and, just because you have the coordinates, that does not mean they are easy to find. Those who hide them take great pride in the clever ways they disguise these treasures. Some caches are known as multi-stage where each location has clues you need for the coordinates for the next site. Some sites are virtual in that there is no treasure but something at the location of significance.

As of this writing there are 215,802 caches located in 219 countries. There are over 1,000 in Montana. By going to the site shown above and typing in your zip code you can see a list of caches in your area.

Geocaching provided an interesting cross-curriculum activity in Billings recently. Ninth-grade teachers from math, science, and language arts collaborated on a treasure hunt where students worked in teams as they moved through a multi-stage hunt in Pioneer Park. Each group had a hand-held GPS receiver and a set of starting coordinates. Each cache on their trek had a curriculum-related



Screen views on the Garmin Etrex (yellow)



Garmin Etrex (yellow)

Garmin Etrex Legend

puzzle to solve that provided the coordinates to the next cache.

There are many GPS units from which to choose. Garmin and Magellan are the leaders and both make hand-held units for under \$100. The students at Senior High were using the Garmin Etrex (the yellow one). I have the Garmin Etrex Legend which has a few more features and costs about \$140. If money is an issue, the yellow one will certainly get the job done. The Legend has a slightly larger screen and sports a “click-stick” which allows you to move a cursor around the screen and click on various options. This makes typing fairly easy and panning on a map a snap. The Legend has maps of the Western Hemisphere preloaded although they only show major streets in major towns, but I was pleasantly surprised by the amount of detail it did contain on Billings and you can’t go wrong with a receiver that even shows Two Dot on the map.

For more information about GPS, see the box on Page 6.

Meeting Minutes

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She also talked about the techhead.org site, to which students of member schools can make purchases of software at a discount.

Archie, Kathy, and Gayla volunteered to help on an MEA planning committee, which will get really active about a week before the conference.

Randa moved to adjourn the meeting and Bob seconded.

Tamara Scott, Secretary



Google Earth's view of Missoula, Montana

Google provides a dynamic view of the Earth

Google, the what will they think of next company, has gone beyond providing basic street maps and satellite views, which they still do, and now provides a dynamic viewer with which to see our planet. Rather than a top down view, Google Earth lets the user select the angle of view and rapid fly across the landscape much like one does with flight simulator software. The earth views are in color and extremely detailed, so detailed that you can make out the

color of vehicles and just see people on the street. Mountains and building are extruded up from the earth's surface.

A special piece of software is required, which is free. You will also need a robust computer with a decent 3D graphics card and a broadband connection to the Internet. For more information and to give it a try, visit:

<http://earth.google.com/>

Web sites with more information about GPS

Fact sheet from the US Air Force

<http://www.af.mil/factsheets/factsheet.asp?fsID=119>

Global Positioning System Overview from the University of Colorado at Boulder

http://www.colorado.edu/geography/gcraft/notes/gps/gps_f.html

Magellan - makers of GPS units

<http://www.magellangps.com/en/>

Garmin - makers of GPS units

<http://www.garmin.com/>

EasyGPS - Free software more connecting your GPS receiver to your computer

<http://www.easygps.com/>

Convert street addresses to latitude and longitude

<http://geocoder.us/>

MCCE MEETING MINUTES

MCCE Fall General Meeting Friday, October 21, 2005
Noon at Hunter Dining Hall, COT, Missoula, MT

The meeting was called to order by President-Elect Stacy Auck. All present introduced themselves.

Bob Gunderson reported on the T-shirt sales at the conference. This year MCCE earned \$820, which goes into the general fund. This was better than usual; Bob thinks the design was a good one.

Desiree gave the treasurers report from last conference to this one. Membership fees of \$1085 have been collected during that time because more than 12 members renewed for 3 years. Expenses have been less than in the past; only 2 board meetings were held instead of 3 so the stipends of \$25 per board member were saved. There was also no keynote speaker last year or this, and that also saved money. Currently MCCE pays \$100 to someone who mans the MCCE membership booth during the conference. Desiree suggested that MCCE members man the booth and then get reimbursed for it. She also reminded everyone that presenters at MEA convention receive a \$20 stipend from MCCE and a \$50 stipend from MEA for each sectional presented. At last year's membership meeting, \$134 was spent on prizes. Desiree suggested that more money could be spent on prizes next year since money was saved this year.

Desiree moved on to the membership report. There are 100 members, but many of those memberships as of the conference date. There were seven renewals on Friday and 8 pre-renewals from conference registrations. She thanked those who helped promote MCCE.

Next Desiree reported on the newsletter for Vince Long who was unable to attend. The newsletter is all electronic – online- and available through a link on the Billings Senior web page. The next newsletter should be available by next week, and Desiree will post the date on the listserv. She reminded everyone that the listserv provides many helpful tips and only colleagues have access to our information. She suggested that everyone should consider sharing information to be included in the newsletter. Ideas for articles can be emailed to Vince.

Stacy opened the meeting to elections. No one present offered to run for the office of President-Elect, so members are encouraged to find possible candidates. Desiree said she could put summaries about candidates in the newsletter and then members could vote on the listserv. Randa made a motion to that effect and Desiree seconded it. The motion passed.

Tami Scott volunteered to be the secretary. Archie, Jim, and Randy agreed to serve another term, through 2008, on the board. They were reelected. There is still one board opening to replace Tami's vacated position on the board.

Stacy reviewed the goals and benefits of MCCE.

Long Term Goals:

- Try to get more involvement from higher education
 - If someone knows a professor, suggest that they present
 - Involve college students
- Connect with organizations like the library
- Coordinate our own technology conference

Short term goals:

- Increase membership
- Get a speaker list

Benefits of MCCE:

- Be part of a professional organization
- Get a discount when joining ISTE
- Tech Talks
 - Many sites
 - Next Tech Talk will include looking at presentations done at MEA
 - Suggestions are welcome for upcoming Tech Talks

Response to Sectionals

Desiree expressed frustration because some technology presentations were not cross-referenced with MCCE. She suggested that the planning board get people to connect them. The problem may be that others are not always aware of MCCE and the need to connect.

Everyone was reminded that there is a \$500 cash award given to the Tech Award-Winning Teacher of the Year. That person's name is then forwarded to ISTE for a chance to win a National Award. In fact, 2 national winners have come from Montana. Bob suggested that people nominate someone who uses technology.

The question of having a speaker or a panel discussion for next year was discussed. Bob explained that the panel had better attendance than the speaker last year. However, Randa feels strongly that a speaker is needed again, and suggested we try to get someone well-known like Patrick Crispin again. Desiree thinks it would be a good idea to have a panel again at the Helena MEA convention.

Jennifer Arns of OETC was introduced. She explained that they provide an aggregated buying service to get low prices for schools. She gave out flyers about membership.

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MCCE 2005-2006

Officers

President

Staci Auck

President-Elect**Past-President**

Kevin Croff

Secretary

Tami Scott

Treasurer

Desireé Caskey

Newsletter Editor

Vince Long

Board Members

Terms through 2006

Susan Flentie

Lori Minnis

Jason Neiffer

Terms through 2007

Randa Froebel

James Gregg

Archie Harris

Bob Gunderson

Randy Chase

Montana Council for Computers and Technology in Education Membership Form

Last Name _____ First Name _____

Mailing Address _____

City _____ State _____ Zip _____

Home Phone _____ E-mail _____

New Member _____ Renewal _____

Area of Interest: College _____ High School _____ K-8 _____

Please be an active member by indicating your area(s) of interest:

_____ willing to be an officer _____ willing to submit articles for the newsletter

_____ willing to be on the Board of Directors _____ willing to work on MCCE committees

_____ willing to be on a committee for a convention

Dues: _____ \$12.00 per year _____ \$30.00 for 3 years

Mail the completed membership form and dues to:

Desireé Caskey
Skyview High School
1775 High Sierra
Billings, MT 59105