

I'd like to welcome everyone today to my session, Cellphones in the classroom? Yes way! My name is Ryan Collins and I'm currently in my 9th year as technology coordinator of Kenton City School. Kenton City Schools consists of ~2000 students spread over 5 elementary buildings, one middle school and one high school. There are almost 750 computers available for student use, a majority running OS X. Other operating systems in use include Linux (over 100) and a few Window XP computers. Throughout my presentation, we'll be using a couple of mobile technologies for audience participation. The first is PollEverywhere.com. It's an audience response system that uses text mesaaging or mobile web to solicit responses. Add 99503 to your address book on our cell phone, if you have text messaging. For those of you who have a mobile browser, please add poll4.com to your bookmarks. To test it, let's see how many people have text messaging versus mobile web. Text or vote 41911 to 99503 to vote on whether you only have text messaging, 41910 if you only have the mobile web, or 44409 if you have both text messaging and mobile web. At the bottom of each slide and at the bottom left of the handouts is another poll set up on PollEverywhere.com. This one allows you to text your questions to PollEverywhere.com. I'll aggregate the questions after my presentation and any questions that do not get answered today will be posted on my website. Looking at the results of our poll, out of the --- number of people here, --- have only text messaging, --- only have mobile web, and --- have both. If you have any fascination with technology and education, now is a very exciting time to be involved. We are being a witness to a major shift in technology use in schools, a shift that will be bigger than the introduction of the personal computer in schools. The first personal computers came into existance over 30 years ago. Although some teachers still view it as a fad, for a majority of teachers the computer has been around longer than they've been teaching. The PC is and still will be very integral, but the pc (and I'm including laptops) have several deficiencies. They're big, bulky. They require power and networking upgrades. They require maintanence. Laptops can't last a day without needing a charge. And finally, their form

factor immediately puts up a barrier between the student and teacher. Whether it is a desktop or laptop, as soon as it is on there is a screen separating the two. Mobile technologies can be used to supplement your current infrastructure with a one-to-one program that can easily encompass an entire district for a lot less money than traditional one-to-one programs. Current cell phone use in the United States has skyrocketed, with 271 million subscribers, only 32 million do not have cell phones. They're probably babies... or in prison... or babies in prison. It was only in 1995 when the US had a scant 34 million subscribers. Off the top of your head, how many people do you know that don't have a cell phone? Text 41952 to 99503 if you don't know anyone, 41953 if it is 1-5, 41954 if it is 6-10 or 41951 if it is 11 or more.

In an April 2008 Pew Internet study of 700 teenagers, out of the responses, 71% had a cell phone while only 59% had a computer.

The most basic cellphones offer two capabilities that can be used in the classroom. They are voice calls and SMS text messaging. The first voice cell phone call took place April 3rd, 1973, the same year that Pink Floyd's Dark Side of the Moon is released and Ohio becomes the first state to post distance in metric on highway signs. In the intervening years, the number of cell phone voice calls have exploded, to the point where 6 billion minutes of voice calls are used per day. 766 minutes per month per user on average. Now, are you going to be calling each other in your classroom? Probably not. Especially with the depth of conversations that go on with the younger generation, "I saw John and Susie down at the hop sharing a shake! No way! Yes, way! Really? Yes, really?" But are there other uses?

Using a cell phone to make calls is pretty natural for telephone users, except for two very important buttons. Since you can't take a cell phone "off hook", you do need to learn what the Send and End key do! Once you do that, you can start making calls! So now you have students who can call, what can you do with those calls?

First service up is www.k7.net which gives you a free voicemail

box which will automatically forward your voicemail to your email. The downside is that the number is a Seattle, WA number in the 206 area code, but the rest is free. You could use this in various ways. For starters, you could set up a different voicemail number for each of your classes, and use that voicemail number as a homework hotline, just by changing the greeting. It also allows you to distribute a number to your students and parents that they can use to contact you. K7 is very much web 1.0 and doesn't have the bells and whistles that other services have.

Another service which does offer all sorts of web 2.0 goodness is Youmail.com. The downside of this service is that you have to give out your cell phone number, but it offers a ton of different features. It works by changing your call forwarding/no answer on your cell phone to forward to their number. Once there, Youmail will take the callers voicemail. By collecting your classes numbers, you can separate the students into different groups, and give each group a customized greeting.

Finally, the best voicemail mail service available for free is unfortunately not available for new users. It's called Grand Central, and was purchased by Google a little over a year and a half ago and has stagnated. They are not accepting new sign-ups, but it is something I wanted you to know of and to keep an eye on. It give you a dedicated number, which you have total control over. You can set it to dial your cell phone and your home phone at the same time, so depending on where you are, you can get your calls. Or you can set it to only dial your cell phone during work hours. An advantage to this is that you do not have to give out your home or cell number. It also offers a Web Call button you can put on any website, and if they want to call you, they press it and enter their number. Grand Central then rings your number and their number, and then connects you.

How else can we use voice calls? How about podcasting? Using a service such as Gabcast.com you or your students can record a podcast audio as naturally as talking on the phone. Once it's on Gabcast, the audio can be downloaded to your computer for

further processing, such as loading it into GarageBand or Audacity to add music and sound effects.

So now we've got the ability to leave messages for an entire class at a time and the ability for students and parents to communicate with us. Where do we go next? Ah, yes, SMS. Which stands for Short Message Service, or more commonly called text messaging. The first text message was sent from a personal computer to a handset in the UK December 3, 1992. The message was "Merry Christmas". Almost 200 billion text messages were sent in the US in 2008, on average 15.9 billion messages a month, or 2 per person.

Why do we want to text? Can't we just call? The appeal of text messaging is the greatest mystery to some, much like the meaning of life and why Twinkies looked baked when they aren't. Although you are limited to 160 characters in a text message (Shakespeare would be proud, TK "Brevity is wit"), you can use text messaging as an asynchronous communication medium that is faster and useful in many more situations. For example, during the school day I sometimes remember something I need to tell my wife. Now I could call her cell phone and leave a voice message, which takes about TK minutes. Then, when she gets a chance, she can check her voicemail, which takes another TK minutes. Or I could send her a text message, which takes less than 30 seconds, and which she can read in less than 10 seconds. I've just saved both of us TK time, and she has a record of what I said. Another advantage is that I can text her something that will make her upset, like forgetting to tell her Happy Anniversary. By the time I see her, she's already seen the message and has had a chance to calm down. So I win!

Now these are a couple examples of one-to-one communications, but what if I want to broadcast to a group? There are two free services that can be used. The first one being Textmarks. With Textmarks you sent up what they call, coincidentally enough, a TextMark. TextMarks can be used to broadcast announcements (one to many), send out messages in

response to a query (one to one), or facilitate discussion (many to many).

I've created an "etech" TextMark, which you can subscribe to by texting the words "sub etech" to 41411. Once you've texted it, you'll receive my message of the day and you'll automatically be subscribed to the list. Now as I work through my class load at school, I might want to remind students about the upcoming quiz on Tuesday. I can text "alert etech Upcoming quiz on Tuesday!" to 41411 and everyone that has subscribed to that TextMark will get the message. For those students that do not have text messaging, they can read the messages posted to that TextMark from the website. That's an example of one to many communications.

TextMarks also lets you have a virtual chat room, where each member's contribution is sent to everyone that is subscribed to that particular TextMark. I've set up a TextMark called "discuss". You can now send "sub discuss" to 41411 and you'll be subscribed. Once you are subscribed you can broadcast messages to the list by texting "discuss This is the best presentation ever" to 41411. Once you've sent a message with a particular TextMark, in this example we used "discuss", you can continue sending messages to that TextMark by substituting the period for the TextMark.

One downside of TextMarks is that you are only allowed three TextMarks with the free account. If you are comfortable with programming, you could really stretch out the use of just one TextMark with a little bit of PHP on a web server.

TextMarks shines with the group features, which the next service I'm going to talk about, Twitter, lacks. Twitter offers some of the features of TextMarks, but comes into its own with the extensibility and number of clients. Twitter asks the question "What are you doing?" and implores you to answer the question for all to see. It's a class of microblogging services, which usually limit your responses to 140 characters or less.

When you follow someone on Twitter, all their updates show up in your timeline located at twitter.com/home. When you post a message, everyone that follows you also will see that message. Where they see it is up to the user, since they can use SMS, the web, or a number of different applications specifically written for Twitter.

From your cell phone or the web site you can control what goes to your cell phone as a SMS message. That is what the "Device update" button is for when viewing someone you are following on the web, or the off command from SMS. To stop getting tweets from a follower as SMS, you can text "off username" to 40404 or from the web push the "Device Updates..." button on a followees Twitter page.

Some Twitter terminology include "@" style replies and direct messages. If you are replying to a user in response to a question, you can start off your tweet with @username. This highlights the tweets in various ways, and helps you, the user, know what is being directed toward you. Twitter also offers direct messages. Prefacing the tweet with "d username" will send a direct message to that user and only that user. It will not show up anywhere else.

To get started with Twitter you can visit their website and signup, or you can text "follow " and someone's username to 40404. For example, to start following my updates, text "follow mr_rcollins" to 40404 and you'll get my words of wisdom directly to your phone. While at the conference, one account to follow is "etechohio09". Thanks to a suggestion by Chris Hamady, I set up that account to aggregate and relay information from conference attendees to other attendees. A many-to-many relationship. Once following you'll get a post from anyone that sends a direct message to etechohio09. If you see something or hear something that you feel may be of interest to others, tweet it as a direct message to etechohio09, for example "d etechohio09 @mr_rcollins's session was the best session I've ever been too." and everyone will get that tweet. Remember, if you start to get

too many tweets, you can always text "off etechohio09" to silence them.

Most of the broadcast messages that you could do with TextMarks you can do with Twitter. For example, as a teacher I could set up a different Twitter account for each of my classes, and have the students follow their class. I could then tweet to that class, and they would have the freedom to decide where they would like to receive their tweets. Twitter does not offer any way to do many-to-many communications without some custom programming or third part site.

Another use of text messaging is research. Google has an SMS service that allows Google to answer questions addressed to it from text messaging. For example, let's say I'm doing a report on our president, and am curious about his favorite food. By texting "obama's birthday" to 466453 (GOOGLE by the letters on your phone keypad) I can find his birthday, August 4th, 1961, and figure out how to spell Iran's president's name, Mahmoud Ahmadinejad. If your current tests are just regurgitating facts, you'll need to replace those questions with more critical thinking skills questions.

So far we've covered several different ways we can communicate information to others through our cell phone, either by voice or text. What about collecting information? Besides SMS, most phones also support MMS (Multimedia Messaging Service) the notable exception is the iPhone. MMS messages have a much larger size limit, depending on the phone it could be 1000 characters or more, and the messages can include pictures, video, or sound. This opens up a plethora of options that can be used inside and outside the classroom to gather information. Students can now collect pictures, videos, and sounds on field trips or on homework assignments and send that information to their computer through an MMS message. Because they can save a message as a draft and return to it later, they can do various word processing projects right from their phone. And if you think the keyboard would be a hinderance, you'd be surprised. In 2007,

5 of the 10 top selling novels in Japan were written, not read, on cell phones! Once they have the information in their computer, they can copy and paste into other application for further processing.

There are several online services that can accept documents through email, which you can send as an MMS message. Kenton City Schools has signed up for the free Google Apps for Education service from Google, and every staff and student has an account there. If a student would write a paper or take their notes as an MMS message on their cell phone, they can send the message to their Google Docs account where it will create a word processing document in which they can do further editing.

Podcasts can now be recorded where ever the students are, or in fact, you the teacher can use your cellphone to record podcasts for your students. It also works for video podcasts, although with Verizon it limits each clip to around 20 seconds if you want to send them through MMS. If you have another way of getting them off the phone, for example, a mini or micro SD card, then the recordings can be longer. A lot of phones can now take an SD card, which is easily ready in any computer with a media card reader.

It also works the other way, meaning that you can send your students longer messages than SMS allows by emailing their cell phones over MMS. The process varies by carrier, but for Verizon customers you can send an MMS message through email with the address `phonenumber@vzwpix.com`. With this capability a teacher can send out additional notes, audio, video, or pictures to their students using either a listserv or more simply, a group in their address book.

The mobile web is becoming more and more important, especially with most major sites now delivering a mobilized version of their website to small screen devices. These mobile websites remove the clutter and format each page so that it's useable on devices like cell phones. Unfortunately, most students

will probably not have a data plan that takes advantage of their web browser built into the phone, but I believe that as more and more services become available with mobile web sites this will change. Under Verizon it is a \$15 option to add the mobile web to non-smartphones. Smartphones on Verizon all now require a data plan, so they can access these mobile sites.

What are some examples of mobile sites? Most websites can be accessed by replacing the "www" with the letter "m". www.weather.com becomes m.weather.com, www.usatoday.com becomes m.usatoday.com, Wikipedia becomes m.wikipedia.org, and www.facebook.com becomes m.facebook.com. Imagine having the sum knowledge of the Internet in the palm of your hand, accessible from anywhere.

Almost all of the Google services offer a mobile interface, gmail is accessed by going to m.google.com/mail, Google search is located at google.com/m, your personalized google page is google.com/m/ig. All of the services can be seen from the m.google.com page. Unfortunately, Google Docs is read-only from the mobile site.

All of the resources mentioned so far have mobile versions of their site. In fact, due to the API access of Twitter, there are several sites you can use from a mobile browser. I use m.slandr.net as my Twitter client on my cell phone.

How can we use all of these resources with a cell phone in your classroom? Let's start with high school social studies class. During the class discussion on World War II, students are asked to retrieve information to reinforce their views during a class debate. Using their cell phones, they can research and use that research in the classroom. Imagine connecting with a classroom in DC who sends their students out to the WWII memorial and captures pictures, video, and audio of the site and interviews with people visiting the memorial.

A 7th grade teacher wants to keep her students up to date with

upcoming quizzes, homework assignments and other project deadlines. She creates a Twitter account for the class and directs them to the website for class updates. The teacher can update the information at anytime from the web or her cell phone. Parents can create accounts and follow the Twitter account also. Most of the students, unfortunately, would be under the age of 13 to create a Twitter account.

A third grade class is going on a field trip. The class has been divided into groups, with each group having its own parent chaperone who will use their cell phone for data gathering. Each group is responsible for documenting what they experience through pictures, video or text. Everything is captured and emailed to the teacher through MMS. Before they arrived, each group subscribed to a TextMark created by the teacher. The TextMark was set up to broadcast messages to everyone subscribed, so if one group saw something amazing, they could instantly relay that information to all the groups.