



From the SIGHC Chair

All,

Welcome to the March newsletter of SIGHC. Lots of events coming up, most importantly the SIG officer elections. We have three positions open this year. Please read the information below if you are interested in nominating yourself. Note that you need to be an ISTE and SIGHC member in good standing to run for a position. Even if you don't run, don't forget to vote!! More NECC news is included in this newsletter, as well as the second installment of our feature articles. Until next month....

Mark van 't Hooft
Chair SIGHC

SIGHC News

SIGHC officer elections are just around the corner. For detailed information on what positions are open, the job descriptions, and qualifications, please go to <http://www.iste.org/sigs/elections>. Here is a list of important election dates:

March 26: Nominations due
April 10: Elections open for voting
April 27: Elections close
May: Officers announced

This year's positions up for grabs include:

- Chair-elect (term 2007-2008, will take over as chair for the 2008-2010 term).
- Secretary (term 2007-2009)
- At-large (term 2007-2009)

The **SIGHC wiki** has been up and running. Please go to <http://www.rcet.org/sighc/wiki> to check it out. Participation in the wiki is free. Just create a user name and password for yourself and start adding to the wiki. We hope that it will become a quality resource for information related to teaching and learning with mobile devices. We are also working on getting a blog online.

Also, please add yourself to the **frappr map** which can be accessed at <http://www.frappr.com/sighc>, so we can start to get a handle on who is using handhelds and where.

Our membership as of 02/26/07 was 171. Let's see if we can get it to at least 200 by the NECC Conference.

ISTE News

ISTE is working on putting a wiki system in place. SIGHC is going to be one of the SIGS to help test this new system. We will move our current wiki to the ISTE wiki once it's up and running. More info to follow as it becomes available.

Call for Contributions

SIGHC tips for handheld computing

We have again received a request to contribute material to the All-SIG newsletter (April 2007 issue). This time around, ISTE would like to have what they call “from SIGHC members about handheld computing,” brief 1-2 paragraph pieces that provide practical tips, examples, etc. for handheld computing for teaching and learning.

Many of you have great stories and tips, as the recent past has shown (see the second installments of stories in this issue of the newsletter). If you would like to contribute a handheld computing tip or two, please email them to Mark van ‘t Hooft (mvanthoo@kent.edu) by Tuesday, March 20. That doesn’t give you much time to write, but the pieces will be short ☺. If you would like to help pick out the best ones, let Mark van ‘t Hooft know as well.

SIGHC will pick the best examples and send them to the ISTE All-SIG newsletter. The rest of the tips will be published in future newsletters and/or on the SIGHC wiki.

Thanks in advance!!

NECC News

The program for NECC (<http://center.uoregon.edu/ISTE/NECC2007/>) is available on the NECC website. Below is an updated table on SIGHC sponsored-sessions with dates and times. A more detailed list of all handheld/mobile sessions will be posted on the SIGHC website soon.

Title	Category	Description	Date	Time	Presenter
Linking Palm Handhelds to Desktop Applications: Advanced Curriculum Integration	Workshop	Leverage existing technologies and use handhelds more efficiently and effectively. Better understand how handhelds fit into the continuum of educational technology. (Sponsored by SIGHC)	Saturday, 6/23/2007	8:30am–3:30pm	Curtis
Mobile, Digital, Ubiquitous: Solutions for Learning with Handhelds	Session	Panel members present solutions for curriculum integration, multimedia inclusion and best practice of mobile technologies for learning at any age. Panel members include Mike Curtis, Tony Vincent, Judy Breck, and Graham Brown-Martin. (Sponsored by SIGHC)	Monday, 6/25/2007	8:30am–9:30am	Lindsay
mLearning with Cell Phones: Just the Beginning	Session	Can mobile phone learning be designed to advance the adolescent reader so maybe “Johnny” can read? (Sponsored by SIGHC)	Wednesday, 6/27/2007	12:00pm–2:00pm	Sweder
Using Student Response Systems Across Environments: See it in Action.	Session	Engage students in your classroom discussions like never before. See how three educators use Student Response Systems and learn to use them yourself. (Sponsored by SIGHC)	Wednesday, 6/27/2007	1:30pm–2:30pm	Johnson
Handhelds: Empower Students to Increase	Poster	Learn how students can use handhelds to monitor their performance in school. Results	Wednesday, 6/27/2007	1:30pm–2:30pm	Gulchak

Academic & Behavioral Achievement		of an empirical study and ideas for replication in your class. (Sponsored by SIGHC)			
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Other SIGHC events:

- 1st Annual International Leadership Summit for Learning Technology Research, Development, and Dissemination (SIILT, SICHC, SIGDE, SIGTC, and ISTE's International Committee (Monday, June 25, 2007, 7:30 am – 12:30 pm; registration is \$20. Note the updated times for this event). See info at the end of the newsletter.
- SIGHC Annual business meeting: (Tuesday, June 26, 2007, 4:45-6:15 pm).

All locations TBA in Mid-May.

Feature Articles

Following the features on podcasting in February, this month's newsletter showcases what some of our SIG members do when it comes to wireless mobile computing. Their stories are below. The third and final installment of this three-part series will be published in the April newsletter.

Technology is for little fish too!

By Daniel Gulchak, daniel.gulchak@asu.edu

In the heart of the Southwest desert, in a large urban city, is a quiet oasis for little fish. The fish have their own outdoor pond and are encircled by a garden of pebbles and beautiful flowers. This is only one centerpiece in the courtyard of Mendoza Elementary School www.mpsaz.org/mendoza/ where the fish are tenderly cared for by students. The students, in turn, are cared for by highly qualified staff and an outstanding principal by the name of Fredi Buffmire.

Mrs. Buffmire looks out for all the fish in her school – this includes providing new technologies to her students with disabilities. At the beginning of the school year, she began a collaborative research project with Daniel Gulchak and Arizona State University to provide handheld computers to a special education teacher and his second grade students with emotional and behavior disorders. The outstanding teacher, David Weber, was looking for a way to help his students increase their achievement in the classroom. Their disruptive behaviors were excluding them from full inclusion in general education classes. An innovative project was conceived that started with two broad technology questions: 1) can elementary age students learn to use handheld computers, 2) can these students use the handheld computers to improve their achievement in the classroom. An empirical study was conducted in Mr. Weber's classroom to help answer these questions.

Many teachers have introduced handheld computers into the classroom. [Tony Vincent](#) was a pioneer in this regard and has shared his talents and knowledge in this area. This is not the innovative part of the project. The innovation comes from an inexpensive database program that teachers can customize themselves called HandDBase, www.ddhsoftware.com/handbase.html . Without the need to learn any programming language, a teacher can create a customized database and student friendly forms that allow students to enter information and track their classroom performance.

In Mr. Weber's classroom, a student was taught to use the HandDBase program to self-monitor his disruptive behaviors and record if he was on-task or off-task during a specified period of time. The student and the teacher agreed on three related behaviors that the student would monitor. These were defined, written down (on a form in the database program so the student could remind themselves of the behaviors at anytime), and practiced during a

training phase of the project. Every 10 minutes during an hour long reading period, an alarm would ring on the handheld computer and the students would record if he was on-task or off-task during that period. At the end of the period the student was able to run a report that told him the percent of time that he was on-task during reading. These data were then exported to Excel and graphed to show the student his progress. By keeping track of his own classroom performance, the student was able to increase the amount of time that he was on-task. The strategy of teaching a student to self-monitor his performance has a robust history of success at all grade and ability levels for monitoring a variety of academic and behavior skills. This project showed that even a second grade student was able to use handheld technology successfully to increase school achievement.

The handheld computers used in this project were Palm Zire 72 computers available from www.palm.com/us/. Samuel DiGangi, Vice Provost for technology at Arizona State University provided the handhelds which were essential to the success of this project. As a result of introducing this technology into the school, the teacher is now expanding his use of ubiquitous computing in the classroom.

The principal of Mendoza Elementary School, Mrs. Buffmire, could have focused her attention and technology resources on only the big fish in her school. Instead she choose to provide technology to her little fish too, her second grade students in special education. Her reward was seeing improvement in a students' classroom achievement all because of the use of handheld computer technology.

Wireless Mobile Devices

Surfing on a Small Screen

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Surfing the Web on a wireless handheld or Smartphone is a very different experience than surfing using a desktop or laptop computer. It's slower, has reduced range, some plug-ins may not be available, and obviously the screen is smaller.

Yet go into a classroom using wireless handhelds, and students will likely approach their Web research in the same manner as if they were in a computer lab. eSchool News shared results from a recent ETS poll (<http://www.eschoolnews.com/news/showStoryts.cfm?ArticleID=6725>) and they support what you likely have already witnessed. Most kids go to Google, type in a vague search word, and click on the first hit. Helping students develop good searching and evaluation skills is important no matter what method one is using. However, poor searching skills when using a handheld device will greatly compound the consequences.

This piece does not attempt to teach global searching and evaluation skills—instead, we focus on a few simple strategies and techniques that will dramatically improve one's Web-browsing experiences on a mobile, wireless device. For more detailed information, please listen to Soft Reset podcast #17, Mobile Internet at <http://learninginhand.com/softreset/17.html>

If a handheld device has wireless capabilities, it will have a built-in, basic browser. However, just like on a desktop, there are many different browsers for handheld devices. Two examples are *ThunderHawk*, (www.bitstream.com/wireless) and *NetFront* (<http://nfppc.access.co.jp/english/>).

Realistically, it's unlikely that a school will buy a browser for students when there's a free one included on the device. No problem. The following tips will drastically improve one's surfing experience.

Mike's Tips for Surfing on a Small Screen:

1. Bookmark <http://www.wapipedia.org>. This is sort of like the handheld-version of Wikipedia. True, any human being can modify this huge collection of shared information, but Wapipedia provides a good opportunity to teach students about evaluating content, and *every hit will be small-screen friendly*. For a comparison type "Abe Lincoln" into Google and take the first hit. Next, type "Abe Lincoln" into

Wapipedia. Note that in Wapipedia, keywords are linkable. This means that students can cruise through content without going back out and “re-Google-ing.”

2. Bookmark <http://mobile.answers.com>. This version of Answers.com is very similar to Wapipedia and a good place to search because it categorizes content.
3. Instead of going to Google.com, go to <http://www.google.com/xhtml>. This is a really cool beta project you should check out, as it reformats web pages for small screens. This means that you have access to everything on the Web, but the heavy lifting is being done by Google and not by your overworked mobile device. Some pages can look a little strange, but it’s generally much better than searching the “normal” Google.
4. Add two words in addition to your search words. “printer friendly,” and “text-only” are good examples. If Google is returning 1.7 million hits, this might reduce it to 450,000. Not perfect, but it will increase the odds that when the student clicks a link they will be taken to a handheld-friendly site.
5. Fall in love with <http://tinyurl.com>. There is only one thing worse than writing a big, messy URL on the board for students to copy onto their laptops, and that is if they have to enter it into a handheld. On your computer, paste the URL you want the students to go to into TinyURL. It will permanently and for free convert your messy, long URL into a short combination of 6 letters and numbers. All students should bookmark is “<http://tinyurl.com/>” and simply get into the habit of entering the 6 characters after the slash.
6. Make a Filamentality at www.filamentality.com/wired/fil. Once you create a free account you’ll be able to make a simple Web Portal of sorts. You list sites you want students to go to, and if you wish, you can write directions, etc. You’ll have your own Web site in minutes. The URL will be messy, but if you were paying attention when reading #5 you know you can use TinyURL! Students go to one site with a listing of all the resources you want them to have access to.

Surfing and Learning on the Go

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St. Lucie County Schools currently has seven teachers at its Elementary, Middle, and High Schools who use PDAs as a 1:1 device that students use in school and at home. Each classroom has an access point connected to the network for Internet access. Each student can communicate with the teacher via the wireless network and with the assistance of a Web-based management tool called PAAM (Palm Artifact and Assessment Manager). This allows projects to be submitted to the teachers as well as allowing the teacher to manage files on each student's device.

Several teachers also use a web site to assign work each day. When students enter the classroom in the morning, they log in to the web site to see what activity they should begin working on. With the wireless network, there is no need to cradle or synchronize. However, we have found that it is more efficient to place United Streaming files on an SD RAM card and distribute them rather than push them out over the wireless network.

For more information about the St. Lucie PDA pilot programs, see a recent Ed Tech article at <http://www.edtechmag.com/k12/issues/november-december-2006/teaching-the-teacher.html>

E-Rate Funding for Handheld Computing

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The E-Rate program can be part of your funding solution as you deploy handhelds in your district. This article will describe what the E-Rate program is, what equipment and services can be funded, and how to obtain funding.

What is the E-Rate?

The E-Rate, or Universal Service Fund Schools and Libraries Program, provides subsidies (called “discount”) to elementary and secondary schools and public libraries. The subsidy is a percentage of expenditures on eligible

equipment and services. The percentage is between 20% and 90%, and is calculated based the percentage of low-income students in a school. For more information on the program, visit www.usac.org/sl.

What is Eligible for Funding?

The E-Rate cannot be used to fund end-user equipment, so the purchase of handhelds cannot be subsidized. However, the E-Rate can support the communications for your handhelds, both within your schools and elsewhere.

One of the biggest changes in the E-Rate program for the 2007-2008 school year is the eligibility of Internet access for mobile devices. The Eligible Services List (http://www.universalservice.org/_res/documents/sl/pdf/els_archive/2007-eligible-services-list.pdf) for 2007-2008 states that “A wireless Internet access service designed for portable electronic devices is eligible to be funded if used for educational purposes.” Like cell phone service, the monthly service cost to wirelessly connect your handheld to the Internet is eligible. Any separate charges for equipment necessary to access the service, however, are not eligible.

Some schools can also receive funding for the equipment to allow your handhelds to connect to your building data networks. This “Priority Two Internal Connections” funding is available only to districts with a high discount percentage, and there are other restrictions. For those districts that are eligible for Internal Connections discounts, network interface cards, wired or wireless are eligible, as are the switches and access points necessary to connect handhelds to the network.

How Do I Apply?

E-Rate applications are usually handled at the district level, so the first step to obtain funding is to contact the district person responsible for the E-Rate. Funding for handhelds will be a part of the district’s application.

The E-Rate has an annual application cycle. The application process for 2007-2008 has begun, and the first deadline is January 10, 2007, so it may be too late to add your handheld costs to your district’s E-Rate application for next year. If so, be ready to get involved in the process next October.

For More Information?

www.on-tech.com/erate
www.usac.org/sl
www.eratecentral.com

And Finally...

As always, don’t forget to participate in the online forum and the wiki too ☺. We hope to see many of you at NECC in Atlanta this year!

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1st Annual International Leadership Summit on Learning Technology Development, Research and Dissemination (updated)

On Monday June 25, 2007, ISTE special interest groups on innovative learning technologies, handheld computing, teacher education, and tele-learning and ISTE's international committee are co-hosting a summit for international leaders in learning technology invention, research/evaluation, and dissemination to explore strategies for significantly improving the creation, validation and dissemination of effective learning technologies keyed to educators' priority concerns.

The challenge that brings these groups together is the considerable difficulty that educators worldwide face in seeking to identify learning technologies both that research has found promising or proven to be effective and that are relevant to their priorities for improving professional practice and student learning.

To address this challenge, summit participants will:

1. Consider the priorities identified by educators in several educational networks for improving their practice and their students' learning. Leaders from diverse organizations including Aspira (the nation's largest organization serving Hispanic youths and their educators and families), the Association of Teacher Educators (over 3,000 teacher education faculty and administrators), the Big 21 Network (the superintendents and staff development system leaders of the nation's 21 largest school districts), and the Council for Opportunity in Education (whose TRIO educators serve over 900,000 low-income K-12 and postsecondary students nationwide) will highlight the priorities of their educators for improving their professional practice and their students' learning opportunities and results.
2. Participate in an interactive forum where learning technology applications that research has found proven or promising to improve some of these groups' most pressing priorities will be showcased.
3. Develop individual and collaborative action plans for mobilizing themselves and the organizations they represent to:
 - Foster more systematic creation and field testing of learning technologies keyed to educators' most pressing concerns.
 - Engage educational researchers in highlighting existing and creating new research studies and meta-analyses of research that identify effective learning technologies relevant to educators' priorities.
 - Develop dissemination resources that are research-based yet jargon-free, keyed to educators' needs, and catalogued and searchable by subject area and terms educators use to describe their priorities.

The summit will begin with a working breakfast at 7:30 a.m. on Monday June 25th and end at 12:30 p.m. Then, during Thursday June 28th and Friday June 29th an invitational retreat will be held at Promethean Corp.'s US headquarters for 25 to 30 international leaders in learning technology development, research and dissemination to map specific steps that will be taken to ensure implementation of key recommendations emerging from the summit.

Registration for the summit will cost \$20 to partially defray costs of breakfast, refreshments and materials. Summit co-hosts are seeking corporate sponsorships to provide scholarship funds to defray travel and registration costs for educators from economically distressed communities worldwide.

An international advisory committee is informing plans for the summit and retreat.

For more information please contact the summit planning co-chairs:

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Call for volunteers for the 1st Annual International Leadership Summit

All, if you are interested in volunteering for the summit in Atlanta in any of the capacities below, please contact Mark van 't Hooft (mvanthoo@kent.edu).

1. Nominate exemplary strategies for improving collaboration/coordination between technology inventors, researchers and disseminators. That we will showcase at the summit.
2. Facilitate round-table discussion during the summit.
3. Record the discussion, issues raised and recommendations offered in the roundtable discussion.
4. Provide moderation for year-round threaded discussion among and between educators working in these otherwise disparate three domains.
5. Help to produce a summit proceedings publication which we'll make available for free, and will highlight challenges to more effective dissemination to educators, teacher educators, staff developers, tech coordinators, etc. of practical, jargon-free, research-supported information about technologies found promising or proven to improve students' learning opportunities, climate and/or results.
6. Help raise funds for travel scholarships so that educators from the developing world and from economically distressed communities in the US can afford to attend.
7. Help to contribute, review, catalog and expand information on promising and proven technology applications for learning for dissemination via the open source software-based Technology Applications for Learning Portal at <http://applications.edreform.net>, for whom George Lucas Fellow Bonnie Bracey serves as editor, so that teachers in a given subject (and those who provide preservice and inservice support for them) can more readily find tech applications relevant to their specific priorities for improving their students' results.