Smart Phone: A Smarter Faster Injury & Illness Prevention Tool

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Ken Beutler, C.I.H.

UC Davis Extension

Occupational & Environmental Management

Western Region Universities Consortium (WRUC)

Learning Outcomes

Upon completion of this section students should have the ability to:

- Find and install safety apps on a smart phone
- Utilize appropriate apps for a variety of purposes
- Quickly identify a chemical, and access detailed information about it's characteristics
- Review and test apps for accuracy

The Telegraph

Britons vote for the iPhone as most important invention ahead of flushing loo and space travel

The iPhone has been voted a more important invention than the washing machine, combustion engine and space travel, according to a survey.

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CONSUMER

The iPhone came eighth, while Thomas Crapper's flushing toilet was ninth. The internal combustion engine came tenth.

7:00AM BST 19 May 2010

A study of 4,000 consumers also placed the Apple smart phone - which has sold 42 million units since its launch in 2007 - ahead of the car.

The wheel was voted as the most important invention in history, with the aeroplane in second place, the lightbulb third, the worldwide web fourth and computers fifth.

Other inventions to make the top ten included Graham Bell's telephone in sixth place, followed by Sir Alexander Flemming's discovery of Penicillin.

The iPhone came eighth, while Thomas Crapper's flushing toilet was ninth. The internal combustion engine came tenth.

Central heating (13th), painkillers (15th) and the steam engine (16th) also made the grade, while spectacles finished off the top 20.

Smart Phone Apps

With thousands of new applications being developed for handheld smartphones every year it can be difficult to keep up.

This listing is intended to help the hazmat / health and safety professional find useful applications.

Basic Safety Functions

- Camera (+GPS tagging), audio & video recorder

- Flashlight (+ Morse Code)
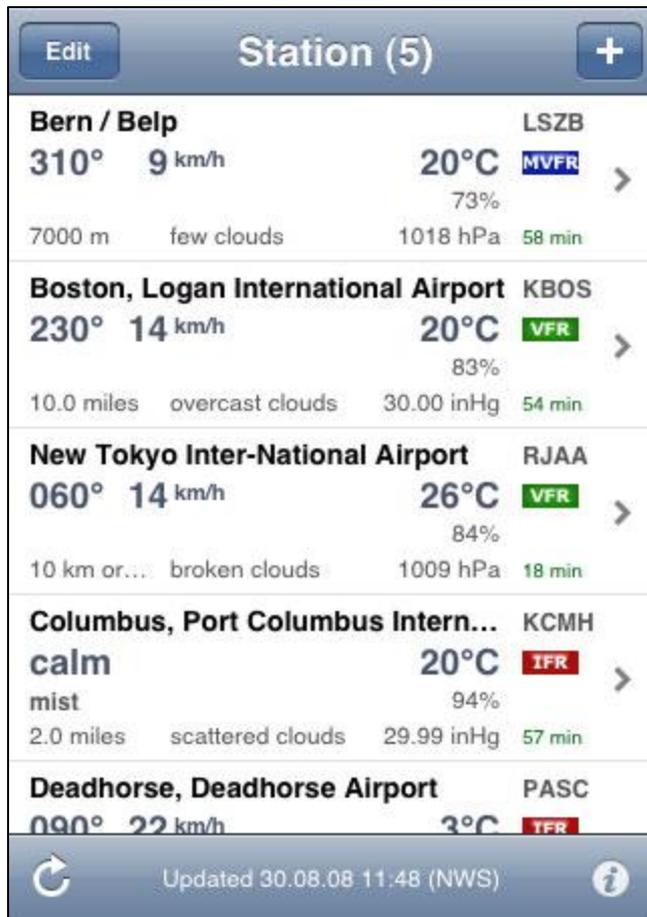
- GPS and Maps

- Web browser

- *It's also a Phone!*
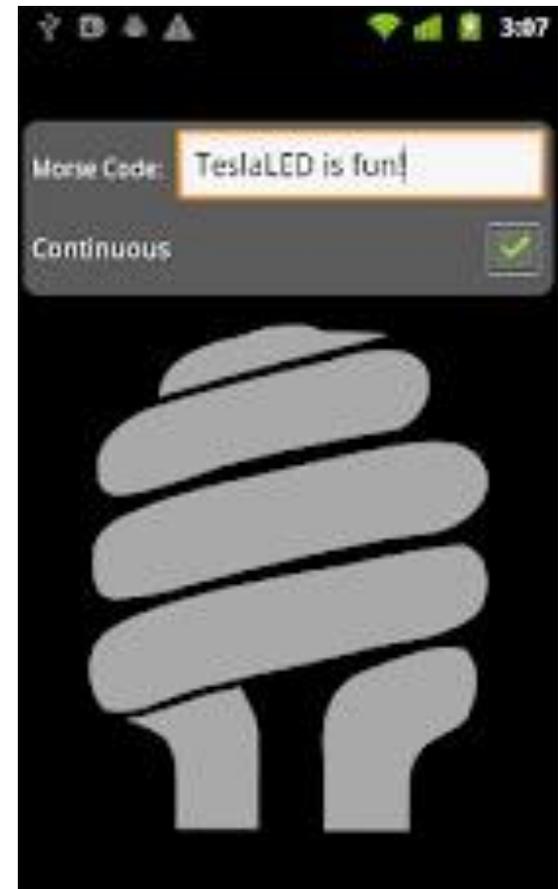
App Advice

- Links provided, but search your app store first

- Some apps cost, some are free, and some have a free and upgraded versions

- Some only available for iPhone/iPad

- All images taken from website listed

- Many, many more safety apps available

- ***Remember your power cord!***

Weather Alerts

AeroWeather: http://www.aeroweather.ch/

- This app provides weather conditions and forecasts for pilots and is available in Lite and Pro versions
- Access weather by GPS location
- Get current and precise weather conditions (METAR) as well as weather forecasts (TAF)
- You can choose worldwide airport weather stations from the built-in database by either name or ICAO code
- Many other weather apps available

Driving Safety

Anti Sleep Pilot: http://www.antisleeppilot.com/en/app

- The Anti Sleep Pilot application calculates your fatigue level while behind the wheel and continuously maintains your alertness through simple tests. It is available for iPhone versions 3GS and 4G

- Other anti-sleep apps available

CHP NEWS

FOR IMMEDIATE RELEASE
June 16, 2010   10-16

CHP Launches Mobile App for Real-Time Traffic Conditions

Before you start your daily commute, you can now look up what traffic collisions or roadway hazards to avoid directly on your mobile device.   The California Highway Patrol (CHP) has launched a new mobile application that provides real-time updates on where officers are responding along California's roadways.   Continuously updated around the clock, the traffic reports include incident time, location and whether it involves a collision, traffic hazard or lane obstruction.

"By using this application, motorists will be able to choose an alternate route to get where they're going and avoid the congested area," said CHP Commissioner Joe Farrow.   "This will help reduce frustration on the part of motorists stuck in traffic and possibly lessen the number of vehicles moving through the incident area."

Commissioner Farrow cautioned that the mobile app should only be used by a driver who is parked or by a passenger in a moving vehicle. California law prohibits motorists from reading, writing or sending a text message, or operating a mobile computing device while behind the wheel of a moving vehicle.

"Before heading out of the office or home, or while you're waiting to pick up your child from school or after an appointment, motorists can get real time traffic information through this portable app," Farrow said.   "It's a valuable tool, but it must be used safely."

The new mobile app is a great way for California motorists, while they are safely parked, or their passengers while they're on the road, to stay updated on road hazards throughout the state, including: Bakersfield, Barstow, the Bay Area, Bishop, Chico, El Centro, Fresno, Humboldt, Indio, Los Angeles, Merced, Monterey, Orange County, Redding, Sacramento, San Bernardino, San Diego, San Luis Obispo, Stockton, Susanville, Truckee, Ukiah, Ventura and Yreka.

The application works on most devices, including the Android, iPhone, Blackberry and others. To view the site from a mobile device, please visit http://m.chp.ca.gov .

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Traffic Reports

California Traffic Report: http://m.chp.ca.gov/

- Developed by the University of California San Diego division of the California Institute for Telecommunications and Information Technology

- This app gets its traffic data from Caltrans, so it covers only the jurisdiction for which Caltrans has traffic information

Traffic Reports

INRIX Traffic: http://www.inrixtraffic.com/

- This app for iPhone, iPad, and Android provides real-time traffic reports for 129 cities -- accidents, construction, and events -- and is powered by a community of more than 2 million drivers, according to the company
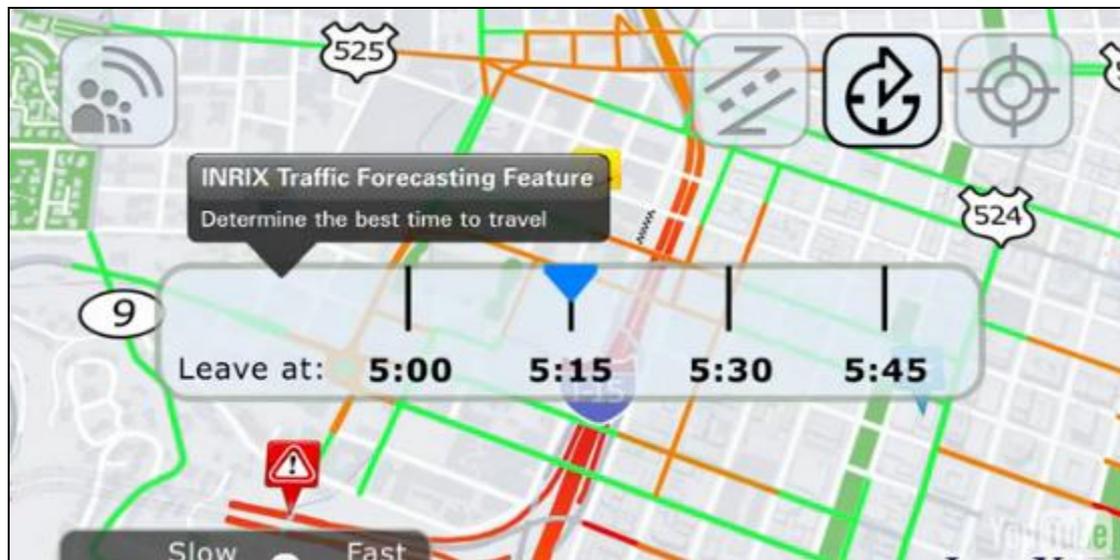
Emergency Preparation & Response

FEMA: http://apps.usa.gov/fema-mobile/

- Government disaster response at the touch of a button

- Learn how to respond to disasters, keep your family safe, apply for assistance, and help others in case of floods, hurricanes, earthquakes, terrorism, or other disasters

- Also provides FEMA contact information

Fire Code

NEC Changes:

necchanges.boopsie.com

- From the National Fire Protection Association
- This app highlights changes between the 2008 and 2011 versions of the National Electrical Code.
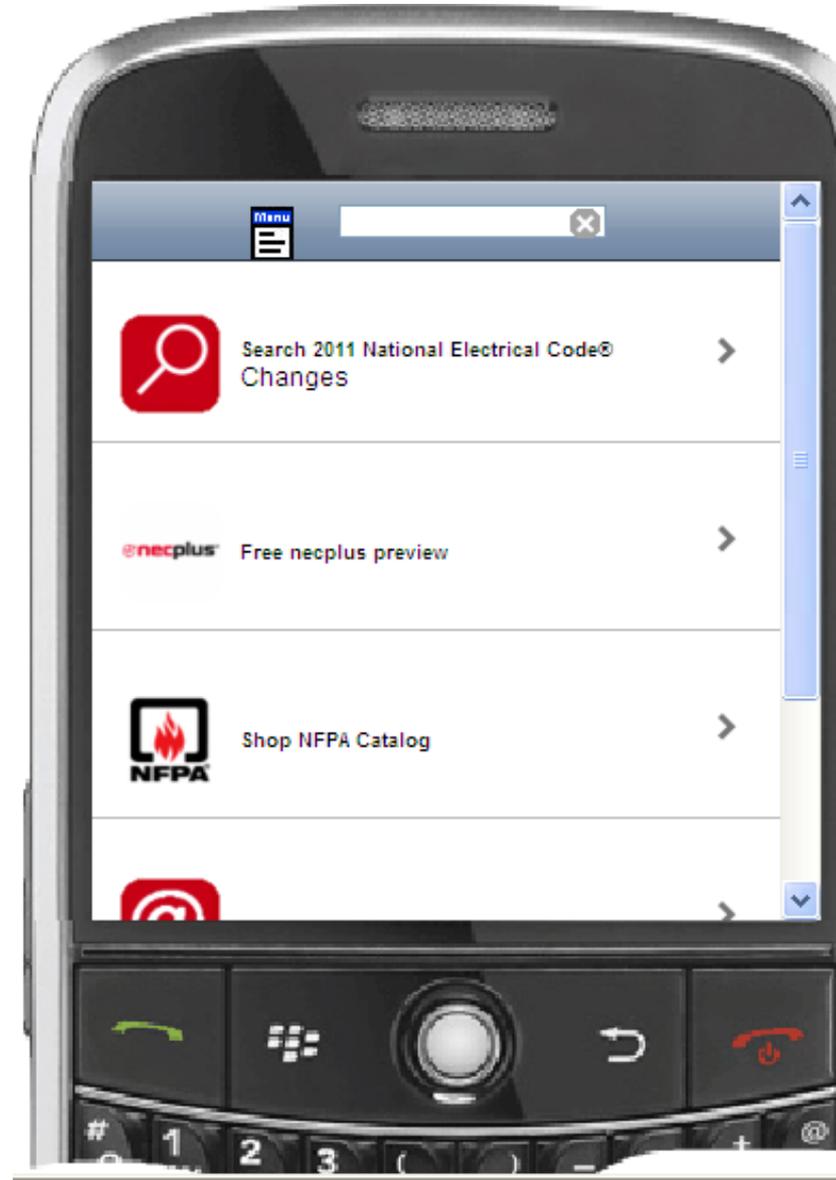
CPR & AEDs

Cardiac Arrest Victim & AED Location App:
http://www.firedepartment.mobi

- From the San Ramon Valley Fire Protection District

- Will alert users who have indicated they are trained in CPR if someone nearby is having a cardiac emergency and may need help

- Also directs the citizen rescuers to the exact location of the closest public access AED.

First Aid

Pocket First Aid & CPR Guide:
http://jive.me/apps/firstaid/

- The American Heart Association's Pocket First Aid & CPR application includes the latest emergency information from AHA.
- Manage your first aid kit checklist
- Save your medical information for quick retrieval
- Look up your doctor or emergency contacts with a single click
- Store your insurance information for easy access
- **All videos, articles and illustrations are stored on your device, *so you can provide first aid even when out of cell phone range!***

CPR

PocketCPR: http://itunes.apple.com/us/app/pocketcpr/id334738473?mt=8
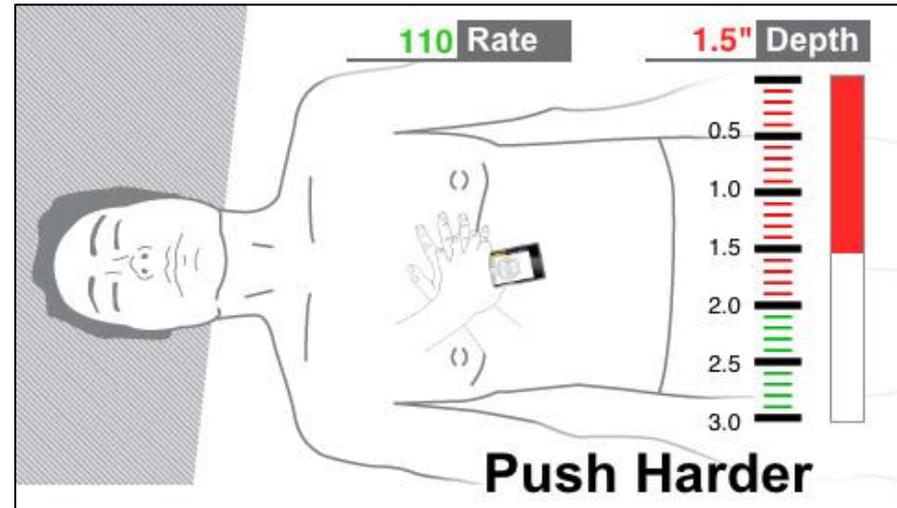
- Uses the accelerometer hardware in the iPhone for real-time coaching and feedback as CPR is learned and practiced

- Measures the rate and depth of compressions, telling the student to push faster or slower, harder or softer

Chemical Safety/EH&S

NIOSH Pocket Guide to Chemical Hazards (2010):

http://itunes.apple.com/us/app/niosh-chemical-hazards/id348880352?mt=8

- This $2.99 app offers the complete contents of the 2010 NIOSH pocket guide on your iPhone, iPod Touch, or iPad
- 4 Searchable Indexes: Chemical Name/Trade Name, CAS Number, RTECS, and UN / DOT Numbers
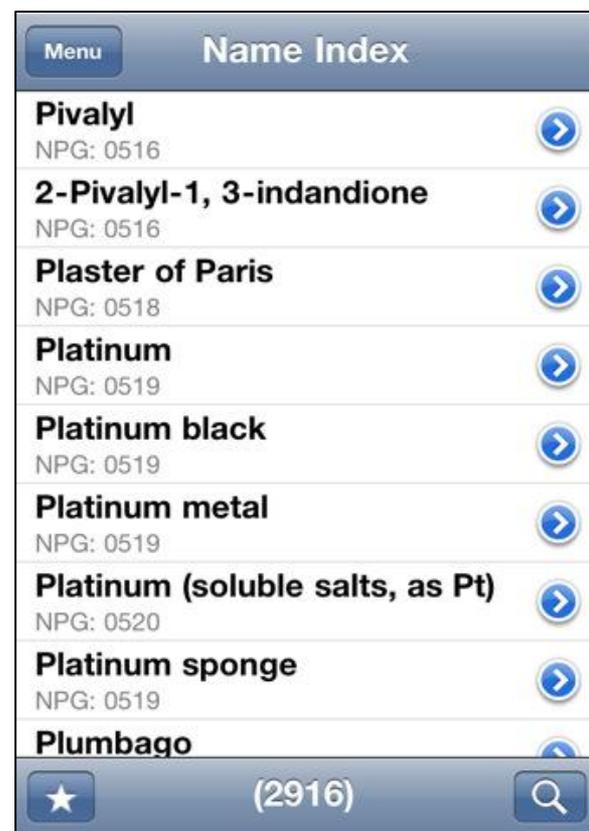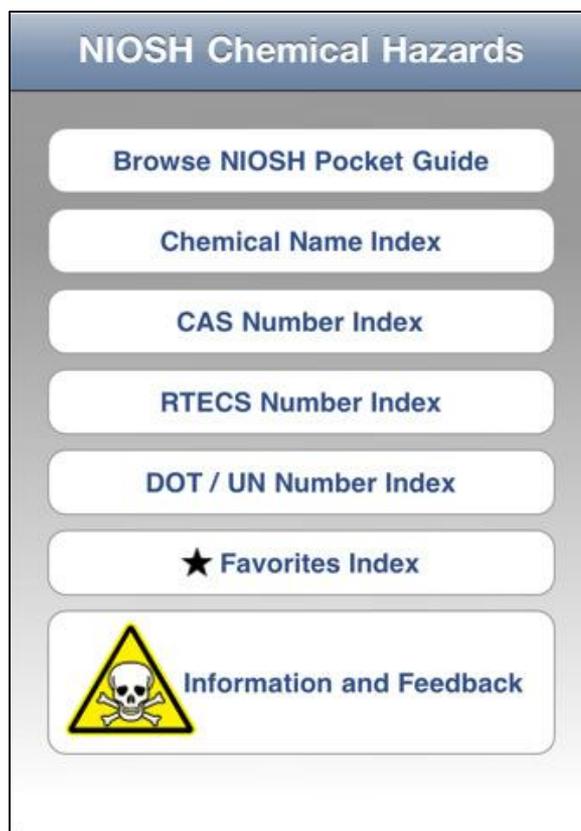
HazMat Emergency Response

Wireless Information System for Emergency Responders (WISER)
http://wiser.nlm.nih.gov/

- Designed to assist first responders in hazardous material incidents

- Provides a wide range of information on hazardous substances, including substance identification support, physical characteristics, human health information, and containment and suppression advice.

- Search by name or ID using a single, integrated search field

- Track your recent substance history

Chemical Safety/EH&S

Chemical Safety Data Sheets:

http://itunes.apple.com/us/app/chemical-safety-data-sheets/id405208132?mt=8

- Free, this app provides International Chemical Safety Cards produced by UNEP, ILO, and the WHO

- Fully indexed and searchable chemical list by Name, CAS# or RTECS#

- No Internet connection required

Chemical Safety/EH&S

HazMat Reference & Emergency Response Guide:

http://www.thatsmystapler.com/erg/

- Quick reference and educational tool for employees that are involved with the regular handling & storage or incident response of Hazardous Materials

- No internet connection required

- Includes DOT Shipping Regulations

Chemical Safety/EH&S

Affytrac Mobile:

http://affygility.com/affytrac/environmental-health-safety-mobile-application.html

- View detailed descriptions of your company's EH&S requirements
- Access external regulatory information through hyperlinks embedded into task assignments
- Log important details into EH&S task assignments and corrective actions right after they take place
- For iPhone, Android, or Blackberry smartphone (uses web browser, no app to install)

Workplace Health & Safety

iOSHA 1910 e-Reference:

http://www.ibsconsultingllc.com/iosha.html

- Access OSHA regulations under 29 CFR 1903 (Inspections, Citations & Proposed Penalties), 1904 (Recording & Reporting Occupational Injuries and Illness) and 1910 on worker health and safety for General Industry

- View the latest information from OSHA.gov RSS Feeds, along with safety regulations and interpretation letters

Industrial Hygiene

Industrial Hygiene Data Interpretation Game:

http://www.noblecanary.com/ih-dig/

- A fun, free app that helps IHs train their brain to interpret small data sets

- Produced in cooperation with AIHA's Exposure Assessment Strategies Committee

Training & Exam Preparation

CHI & CSP Exam Quiz Games

http://www.bowenehs.com/cat/Quiz-Games.html

- Fun ways to test your EHS knowledge and complement your studying

- They're easy, portable, and free!

- Test your knowledge with short quizzes and find out if you are an IH Genius or if you need to keep studying

Heat Stress

OSHA Heat Safety Tool
http://www.osha.gov/SLTC/heatillness/heat_index/heat_app.html

- Calculate the **heat index** for a worksite, and, based on the heat index, display a **risk level** to outdoor workers

- Then, with a simple "click," you can get reminders about the **protective measures** that should be taken at that risk level to protect workers

- Includes reminders about drinking enough fluids, scheduling rest breaks, planning for emergencies, adjusting work operations, heat illness signs and symptoms, and more

Radiation

Radiation Emergency Medical Management

http://www.remm.nlm.gov/downloadmremm.htm

- Online (full) and Mobile versions of REMM

- Guidance for health care providers about treatment of radiation injury emergencies

- Includes dose estimator for radiation exposure, information on radiation countermeasures, and emergency contacts (and more)

- Information can be downloaded in advance

Accuracy and Reliability?

Can you rely on mobile safety apps?

- Not all apps are created equal

- Some rely on internet access, some do not

- **Temperature App – example of bad app**

- Read Reviews

- Test apps when possible…

Sound Level Meter

Multiple applications are available which provide a simple way to measure audio volumes in your environment. The apps show the approximate dB (decibel) level, also known as Sound Pressure Level (SPL)

- **Testing Demonstration –*is it accurate?***

http://www.appbrain.com/app/sound-meter/kr.sira.sound

App Exercise

- **Group exercise – 1 smartphone per group**

- Other recommendations for safety apps?

- Other apps you would like to see?