Smart Boards and iPod Synergy, presented by Armin Jahr

I. Say hello to the Smart Board

    A. Smart!

        1. Visual, hands-on, interactive

        2. Integrates with existing applications such as Keynote, Microsoft products

        3. Awesome screen capture tools

        4. Easy connection to document readers

        5. Built-in applications such as grids, periodic tables, games, random number generators

        6. Local support

    B. And still learning...

        1. Some glitches in the software

        2. Doesn't do multi-touch tracking

        3. Notebook software isn't as robust as presentation applications

        4. Presenter tied to the board (unless using a tablet...)

II. Introducing the iTouch/iPhone

    A. Visual, tactile and portable

    B. Inexpensive (often free) hands-on applications (in contrast to static computer apps)

    C. New applications can be created by enterprising educators like you!

    D. Adds variety and offers opportunity for on-the-spot student involvement

    E. Unleashes the presenter, puts applications directly into the hands of students

III. Three synergies

    A. Remote control

        1. Presentation control

        2. Track pad / keyboard

    B. Interactive application driver (use with the document camera and stylus)

        1. Calculators

        2. Demonstrations

        3. Data (e.g. equations, data collection, probeware (make it happen, Pasco!)

        4. Note: Currently the only way to project an iPod Touch screen on the Smart Board is via the document camera.

    C. Independent student-manipulative device

        1. iPod Touch calculator... web browser, etc.

        2. Clickers...

        3. Lab logging device (data collection)

IV. Taking Control of the Board! (via Wi-Fi)

    A. Remote: A free application that controls Keynote remotely. Pros: It works! Two modes: notes or next slide. It shows the upcoming effects. Easy to shift from Keynote to Notebook applications. Cons: Doesn't work with Microsoft's PowerPoint. Ink Aware doesn't work in the presentation mode.

    B. Air Mouse: Combo trackpad / keyboard application. Keyboard works well, and the trackpad functions like a multi-touch trackpad. The application works on both Macs and PC's. Suggestion: try using a stylus (aluminum foil wrapped around a pencil) to gain better control over the keyboard. Cons: Doesn't show the monitor's output.

C. iTap: A multi-touch trackpad that works smoothly with the Notebook software. I prefer this trackpad to the Air Mouse application, but turn to the Air Mouse for the keyboard. This change of apps can be done on the fly. It is a refined application and functions more smoothly than the Air Mouse.

V. Interactive application driver (synergy with the document camera)

A. The document camera is quite useful for creating snapshots for Notebook pages (such as lab date-sheets), and showing live demos (like close-ups of biology specimens, microscope images, etc.)

B. The document camera integrates well with the Touch. Among the applications that find their way onto my Smart Board screen via the Touch / document driver combo are:

1. AppBox Pro (lots of conversions and useful tools)
2. ChemiCal for formula mass calculations, molarity, dilutions, periodic table
3. iChemistry for balancing equations, mass calculations
4. ChemTouch, useful for looking up periodic table data
5. Physics 101 SE jr for physics equations, calculations, definitions
6. iFormulas, useful summary of algebra, geometry, trigonometry and calculus functions. This is similar to MatRefFree
7. Electrical Toolkit for electrical calculations. Includes a simple resistor chart.
8. Cradle, an interactive Newton's Cradle, great for illustrating inelastic collisions
9. Various calculators, including GraphCalc, Pi Cubed Lite, Calco Lite (good for long equations and conversions), Touch Calc (buttons are too small) and the native Calculator. *Yeah, I know the Notebook software includes a calculator, but sometimes it is more interesting for the students to see the iTouch calculator on the screen..."

C.Apple's Developer's Toolkit: This is the ultimate opportunity for enterprising teachers like you. Using this software, you can create applications to fill in the missing gaps. The software is free, a little intimidating, and takes up a lot of space...

VI. Idea bin

A. Use pictures of students on the Smart Board to sign in to class.

B. Post the grades and curve on the Smart Board to generate class discussion

C. Open classes with a game on the Smart Board

D. Use the dice to get student groups up front for problem-solving

E. Take screen shots and document shots to generate data sheets

F. Put a survey question on each test. Use the results to generate charts. For example, "What is your favorite pop?" data leads to an interesting chart and discussions of metabolism, chemistry, gas laws, advertising, Yellow Dye #2 and so forth. Very useful for opening up discussions and new sections of texts.

G. Work problems from the test on the board. Take a picture of the test using the document camera. Post it in notebook...