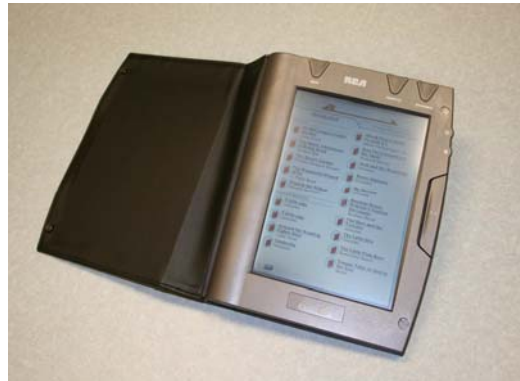


E-books in the Classroom – Pass or Fail?

by Bruce Sowers



In the world of elementary education, the opportunity to bring something new to the classroom to support curriculum can never hurt. Educators struggle to find technology that is easy to use, engaging, and accessible to students; while technology support staff struggle to maintain technology that is affordable, reliable, and able to accomplish the task at hand. State initiatives for 1:1 student-to-computer ratios seems a daunting mandate for many districts that already struggle to meet basic educational needs. Filling classrooms with electricity-hungry, disposable-grade computer workstations does not seem a logical step to many IT professionals.

In a society that prides itself on its technology, why are students still carrying their bodyweight in textbooks when handheld devices can provide the same information? The textbook publishing industry seems to be the crucial barrier to change in this area.

The current generation of e-books presents clear indicators that use in the classroom is more feasible than most realize; however, limitations of the device tested in this article clearly mark areas for improvement.

Third-grade teacher Janet Sparks and I introduced e-books to her class late last spring as part of an ongoing project being conducted by Ball State University. The Random House Webster's Concise Dictionary, Second Edition was loaded on the e-books. The students were also provided with the same dictionary in hardcopy form. After minimal exposure to the e-books, the students were studied while looking up words using the e-book vs. the hardcopy. Results were recorded for speed and accuracy. The test results were mixed; yet one thing was evident – every student who used the e-book loved it. It was new, different, and fun. This fall Mrs. Sparks has an e-book for every student in her class, and the e-book experience continues.

The Technology

The technology for e-books is nothing new; but development devices that are playground rugged, intuitive to use, and reliable, has proven to be a major hurdle to development and deployment.

In our case, the e-book device used is the RCA "e-Book" made by Thomson Consumer Electronics, model # REB1200.

Pros: The device is rugged. Over the past few months none of the e-books have broken in any way, and the software has run flawlessly.

The e-book requires no network connection. All content is loaded on the device and runs independently. Screen brightness and resolution are more than adequate, with no complaints from users.

The controls are all intuitive. Buttons are large and well-marked, controls are placed in logical positions for reading, and the software controls are easy to find and understand. Perhaps the most appealing feature is the on/off mechanism. Simply opening the cover turns on the device, and boot up is nearly instant.

This e-book has the size, shape, and weight of a traditional book with many times the content.

Cons: Battery life may be the biggest hurdle to overcome. Battery life lasts approximately 7 to 8 hours between charges. Much more content can be loaded on these devices than battery life will allow the user to access.

Each e-book is accompanied by the ubiquitous power brick, the usual oversized, heavy piece that takes up multiple spaces on the standard power strip. This makes charging a classroom of e-books quite the unsightly mess.

The spring-loaded stylus that came with the device is probably not ideal for grade schools and early attempts at removing the stylus resulted in shooting it across the table onto the floor. The teacher immediately removed the styluses to prevent this from becoming a favorite pastime in the classroom. The students had no trouble navigating the touch screen using their fingers.

Content

Several textbook publishers were contacted to either obtain electronic copies of the textbook material or gain permission to have the textbooks converted. To date, none of the publishers have been willing to cooperate. Professor Richard Bellaver of Ball State's Center for Information and Communication Sciences has repeatedly contacted publishers but finds "they are not really wanting talk." He agrees that publishers are currently the biggest stumbling block to getting e-books off the ground in school environments.

While thousands of books are available through sources such as the Project Gutenberg site (<http://www.gutenberg.org>), the melding of these materials into curriculum is something that has not been achieved.

Integration into the Curriculum

To this point, the teacher has focused on the use of the dictionary loaded on the devices; however, several students have read other books on the device.

The teacher advocates that placing textbook material on the devices because students "would only have to put one item in their backpack to take home." She also points out that using the devices would free up much needed space in student desks.

Student Reaction

Student response to these devices has been overwhelmingly positive. They want more time with the e-books and want more books on them.

Conclusion

To date, our study of the e-book has shown no insurmountable technical issues. With a new generation of e-books on the horizon, any issues involving battery life, size, and weight should be improved.

The biggest hindrance to wide-spread adoption of e-books has nothing to do with the technology itself, but with the publishers. Selling hardcopy textbooks every

year seems to be the tunnel vision of the publishing industry. Their unwillingness to consider alternative methods of delivering content is disturbing.

The technology is affordable, it's suitable for classroom use, and it should be developed further. The e-book device is an effective way to meet the wireless needs of schools without the cost of wireless network infrastructure. We are continuing to use e-books this year and plead our case to whoever will listen to get content we can use.