



AN R_x TO DRIVE THE MARKET FOR K-12 WEB-BASED LEARNING PRODUCTS

EDUCATORS MUST TEACH STUDENTS SAFE AND EFFECTIVE TECHNOLOGY-USE SKILLS



By Jim Teicher, President, The CyberSmart! School Program

Teachers are the critical link to improving learning with the use of technology. They need to be better prepared on several fronts: teachers must acquire the skills needed to integrate technology into the process of teaching and learning, and feel confident that their students can use computers and the Internet safely, responsibly and effectively. This is a daunting

set of tasks that can't be accomplished without training.

As school districts everywhere have realized, technology implementation is more than buying hardware and hooking up cables. It involves a commitment to ensure that students stay safe from harm, understand their responsibilities as citizens, and use their time online productively and

effectively. It also involves a commitment to help teachers integrate technology within a context of responsible use.

Interestingly, whereas schools will automatically install anti-virus and firewall software before connecting to the Internet, teachers are often left without any training related to appropriate student technology use by grade level. This seri-

ously hampers their ability to effectively support their core curriculum with technology resources.

There is a strong financial incentive for educational publishers to encourage teachers to become techno-savvy and establish a comfort level regarding students' use of technology. The Bush Administration has made it clear, by means of the *No Child Left Behind Act*, that schools must be accountable for using technology to enhance the quality of education. Expenditures of new funds for educational technology will thus depend on the value technology adds to the quality of education. Teachers are the critical link to creating that classroom value.

The free CyberSmart! Curriculum, available at www.cybersmart.org, was developed by The CyberSmart! School Program and is co-published with Macmillan/McGraw-Hill. Its objective is to provide teachers with a professionally designed curriculum that paves the way for increased appropriate technology integration. The CyberSmart! Curriculum was formally introduced in the Houston Independent School District in early 2002, and schools throughout the nation have started to implement CyberSmart! lessons. Although formal assessment of the curriculum has not been completed, early feedback from school administrators, teachers, students and parents is extremely positive.

The CyberSmart! Curriculum is organized into five units, each teaching an important facet of Internet use. Teachers can choose to utilize some, or all, of the lessons according to their particular needs, and segments can be taught by classroom teachers, technology teachers, media specialists and/or librarians.

Curriculum topics are progressively scaled in developmental appropriateness, with the number of lessons per grade increasing as students' reading and critical-thinking skills develop. For example the concept of property as a means of understanding ethical behav-

“There is a strong financial incentive for educational publishers to encourage teachers to become techno-savvy and establish a comfort level regarding students' use of technology.”

ior in cyberspace is explored differently at various grade levels. Children in K-1 learn that computers, like other objects, are property and should be respected as such. Older children extend their understanding of “property” to include the work of others and learn to apply the same ethical principles in cyberspace that guide them in face-to-face situations. Middle school students explore the consequences and ethics of teen hacking.

The five CyberSmart units, each contain developmentally appropriate S-M-A-R-T Lessons:

- **Safety**

Students should experience the excitement and power of going online while learning safety rules to protect their identities. Younger children need to be taught that — just as in the physical world — they should always take an adult with them when going somewhere in cyberspace. Older children need to adopt a critical-thinking process to

protect themselves and know exactly what is “private identity information.” Internet-filtering technology is not foolproof, and students must be taught to recognize feelings of discomfort — whether from accessing unsuitable content or being bullied online — and know how to responsibly manage uncomfortable situations online.

- **Manners**

Students should learn what it means to be a good cybercitizen, including their social, legal and ethical responsibilities when using computers and the Internet. Students should be able to relate the privileges and responsibilities of cybercitizenship to the specifics of their school's Acceptable Use Policy. Students need to extend their understanding of “property” to include not only computer equipment but also electronic files and intellectual property. Students should learn to apply the same ethical principles in cyberspace that guide them in face-to-face situations.

- **Advertising and Privacy**

Because advertising appears on many web sites, including those that enable online research and other valuable instructional resources, students need to be taught how to identify commercial intentions in cyberspace, particularly because advertising and content blur in their minds. They should recognize that commercial Web sites often collect information about visitors and learn to recognize whether such sites protect the privacy of children as required by law.

- **Research Skills**

Students should be adept at the specific online strategies and skills needed to effectively mine the resources of the Internet. To support their class work, retrieving quality information requires a variety of learned online search strategies and decision-making skills. Students must be taught to recog-

nize the difference between the information retrieved by public search engines and the resource databases provided by the libraries. They must be able to apply criteria to determine the usefulness of a Web site to support their schoolwork and learn to recognize when it is better to use the print resources of their library.

- **Technology in a Social Context**

Finally, students need to be provided with a basic framework for understanding the role computers and the Internet play in our society today. By conceptualizing the geography of cyberspace, as it relates to their school, neighborhood, country and world, they should learn that cyberspace is where real people connect using computers. Students can then consider how networks work to connect people and the social

issues related to technology use.

Teachers need to learn how to make the most of technology because they provide the essential link between hardware, software, and improving the quality of education. Educational software publishers need to make every effort to help teachers break down the barriers between technology and learning. This can be accomplished through initiatives that help teachers establish a comfort level with computers and the Internet and provide the tools necessary to introduce these appropriate use skills to their students. ■

About CyberSmart

The CyberSmart! School Program develops curricula and training programs for professional development and related services designed to help educators empower students to take full advantage of computers and the Internet. The challenge - "Be CyberSmart!" - captures its vision of a savvy and responsible generation of young technology users. The

CyberSmart! K-8 Curriculum, co-published with MacMillan McGraw-Hill, is a free "Owner's Manual" for students safe, responsible and effective use of school technology and complements all academic subjects. It is available at www.cybersmart.org.

Jim Teicher is a veteran information industry executive, Internet public policy advocate, entrepreneur and parent of school-age children. Teicher currently serves on the advisory board of The Congressional Internet Caucus, is a founding sponsor of the National CyberSecurity Alliance and is on the Board of Advisors of the Internet Alliance Association. He participated on the steering committee of America Links Up, the national online safety initiative co-sponsored by AOL Time Warner, Disney, AT&T and Microsoft, and has spoken before government agencies on information security and privacy-related issues worldwide. Teicher can be contacted at jim@cybersmart.org, tel. +1.908.221.1516.

eUPDATES

Subscribe to eUpdates from SIIA
Stay informed. Get involved. Surpass your competition.

Subscribe today for updates on the following topics:

CHINA UPDATES

Receive updates on latest developments in the Chinese market, the business environment, key companies and WTO accession.

CONTENT DIVISION UPDATES

Social, legal, and technical issues facing online content.

eBUSINESS DIVISION UPDATE

A rundown on the latest industry issues, projects, strategic thoughts and trends in network based software and services.

EDUCATION TECHNOLOGY MARKET INITIATIVES

Current trends, standards efforts, promotional opportunities, market research and grants for education technology companies.

EDUCATION TECHNOLOGY POLICY

Updates on policy shaping the education technology market.

FINANCIAL INFORMATION SERVICES DIVISION (FISD)

Trends, business models, opportunities and standards efforts in the industry.

GLOBAL BUSINESS OPPORTUNITIES

Trends, business models and opportunities in global business.

INTELLECTUAL PROPERTY PROTECTION

Updates on worldwide policy efforts to protect intellectual property.

PRIVACY & eCOMMERCE POLICY

Encryption, digital signatures, security, jurisdiction, certification, authentication and federal policy.

SIIA NEWSLINE

A monthly update on SIIA events, member services, policy & program initiatives.

SIGN UP TODAY AT WWW.SIIA.NET/ENEWS