

We are pleased to submit information to the Legislature in support of examining the benefits of electronic textbooks as a means to help school districts save money and promote a rich classroom experience that helps today's digital natives realize their full academic potential.

Digital education content can be an effective tool, offering schools greater flexibility, promoting innovation, making better use of instructional materials aid, and encouraging the creation of 21st Century Classrooms.

By utilizing the power of education technology to keep students excited about learning, you are more likely to see students remain in school and focused on graduation and higher education and workforce opportunities.

There is no doubt that textbooks can be very expensive. It is not unusual today to find high school and college textbooks that cost \$100. In contrast, digital content available on the web is both cheaper (free in some cases) and offers more current information, incorporating moving video and audio, making the subject matter far more engaging for today's technology savvy students. In fact, Seton Hill University in suburban Pittsburgh recently announced that it will provide free Apple iPads to roughly 1,500 full-time students, allowing them to download digital textbooks. University officials have cited the ability of students to create and share work instantly with other students and faculty as a reason why the University is making the investment.

In addition to the benefits of utilizing digital content to promote higher levels of student engagement and achievement, we believe there are smart reasons to view it as a catalyst for economic development.

Electronic textbooks, a natural fit with technology-rich learning environments, go hand in hand with the aptitude, interest, and digital world that our students already experience outside the classroom walls.

These instructional materials are a necessary prerequisite to prepare students for higher education and the workforce. In an era of global markets and the rise of China and India, it is imperative that our students be given the tools to compete and win, in both the classroom and the workplace.

The use of digital content and mobile technology also sends a strong signal to employers that you intend to build upon the success of Classrooms for the Future, positioning the state as a leader in technology, attracting jobs and new investment. Employers, both current and prospective, will know that Pennsylvania is committed to grooming tech-savvy students to enter both college and the workforce. This can provide a real competitive advantage for the state in challenging economic times.

A broader application of digital content can also ensure greater equity of access to technology learning tools for students across the economic spectrum. This can be an important step towards narrowing the achievement gap among diverse student

populations. In this way, you can use education technology to promote digital equity and level the playing field for students from rural, urban and suburban schools.

Thank you for the opportunity to share our thoughts on this important topic, and we applaud you for looking at proactive solutions to give your students the most current, relevant, and engaging instructional materials that promote academic excellence.

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Textbooks are an integral part of education, and just as the rest of the world adopts new technologies in different industries, so are textbooks changing. The benefits of digital curriculum range from compelling, fresh content materials and greater impact on learning to cost and environmental advantages. K-12 students are constantly finding new ways to integrate electronics into their daily pattern of life and the modern workplace is perpetually on the lookout for productivity-enhancing technologies. Supported by increasingly functional devices, digital curriculum is better apt to deliver a 21st-century education and prepare the 21st-century workforce.

- Content adaptability
 - Unlike traditional textbooks, new chapters can be added without large production costs. Digital textbooks can reflect the true pace of change in science and technology.
 - Purchases can be annual electronic licenses; content always stays current.
- Engaging for the students
 - Students today live in a digital world, it's how they live and want to learn. Shouldn't our schools reflect that?
- Immersive reading/learning/studying experience
 - Related materials are often hyperlinked within the text allowing students to do immediate follow-up research.
 - Multimedia graphs, charts, diagrams, pictures, video and audio are available to help explain and illustrate difficult concepts.
 - Digital textbooks allow students to copy and paste, search, bookmark, highlight and take notes electronically.
- Accessibility
 - Text-to-speech options are available for the hearing-impaired as well as auditory learners.
 - Text size adjustability is available for visually impaired learners.
 - Light in weight and small in size — a flash drive can hold hundreds of books.
 - The technology meets the student, where ever they are on the learning spectrum.
- Portability
 - Digital textbooks can be stored on a flash drive, iPod, eReader, laptop, smartphone etc.
 - Protects children by Preventing overloaded backpacks (and the related injuries reported in many articles).
<http://archives.cnn.com/2002/EDUCATION/10/16/heavy.backpacks.ap/index.html>
<http://www.tampabay.com/news/education/k12/article833189.ece>
- Availability of a wide variety of content – Much of it for free

- Many historical documents and literature already exist in free digital forms online.
- iTunes University offers free digital content for K-20 with a wealth of information. Over 250,000 free educational lectures, class lessons, films, videos, films and other resources. Learn more at:
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- Environmental issues
 - The book industry consumes more than one million tons or nearly 20 million trees per year. Textbooks represent approximately 20 percent of this total consumption.
<http://www.greenpressinitiative.org/>
 - 40 percent of the materials found in landfills are paper products. As paper degrades, it produces methane — a greenhouse gas with 21 times the heat trapping power of carbon dioxide that eats away at our atmosphere.
<http://www.greenpressinitiative.org/>
- Costs
 - Many organizations have made open source, free content available online, ranging from CK-12 to Project Gutenberg. This movement is gaining momentum, forcing publishers to produce more e-books as well as drive down prices.
 - College textbook cost breakdown: 32.7 percent of a textbook's cost comes from paper, printing and editorial costs; 10.2 percent goes to college store operations and related taxes; 11.6 percent goes to retail personnel; and 1 percent covers freight. If published in the all-digital format, as much as 55.6 percent of textbook production costs could be reduced, and 100 percent of the physical resources would be eliminated.

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Nurse wants to take the load off kids' backs

Michele Miller, Times Staff Writer

Published Tuesday, September 30, 2008

LAND O'LAKES — National School Backpack Awareness Day was Sept. 17 and for many, the day came and went with hardly a blip.

But not for Donna Johnson, a school nurse at Pine View Middle, Denham Oaks Elementary, Countryside Montessori and Imagine Charter schools.

"Backpack safety is sort of my passion," said Johnson, who has held Backpack Safety clinics for students in the past. And she wrote an article all about it that was distributed recently in some school newsletters throughout the county.

Since she started working in the schools in 1994, Johnson has seen plenty of "don'ts" when it comes to backpacks. While she's quick to debunk the myth that carrying a heavy backpack can cause scoliosis, she said carrying too much weight or wearing that backpack the wrong way can cause plenty of aches and pains.

First and foremost, Johnson advises parents to check their child's backpack to make sure students aren't carrying any unnecessary books. Middle schools such as Pine View distribute a set of books for home and a set for the classroom so students don't have to tote books back and forth. Many schools now offer the choice of a traditional textbook or a CD for students to take home.

Backpack safety is a definite concern that students and parents should be aware of, said Johnson.

"Doing the wrong thing can lead to lots of aches, pains, strains, muscle spasms and it can lead to poor posture," she said.

Backpack tips

- Choose the right backpack for the student's size. Try it on in the store to be sure it fits properly.
- Do not purchase messenger bags that hang on one shoulder or backpacks with wheels that present a tripping hazard.
- Opt for a traditional backpack with wide padded straps, a waist belt, padded back and multiple compartments so the weight carried can be distributed evenly.
- The student should wear the backpack properly, NOT on one shoulder. The backpack should fit high on the back and the student should be able to walk with a straight back, NOT hunched over.
- Weigh the backpack on your bathroom scale. Be sure that the maximum weight is not more than 15 percent of the student's body weight.
- Don't carry unnecessary books or items.
- Parents who are concerned about the amount or the weight of books and items teachers have assigned to be brought to and from

school should contact the school nurse or administration to try to work something out.

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Let the learning begin.

iTunes U brings the power of the iTunes Store to education, making it simple to distribute information to your students and faculty — or to lifelong learners all over the world. With an iTunes U site, your institution has a single home for all the digital content created or curated by educators, which can then be easily downloaded and viewed on any Mac, PC, iPod, or iPhone.

Content Distribution

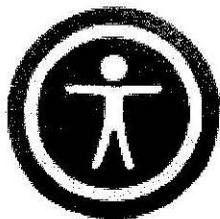
Great for students and institutions alike

Imagine students touring archaeological sites, watching historical footage, or studying the sound of heart murmurs — whenever and wherever they want. Professors can use audio and video content from museums, universities, cultural institutions, and public television stations to supplement their lectures. A strong iTunes U program puts your institution at the forefront of technology in education.



Simple to use

Content on iTunes U is accessible through iTunes, an application many students are already using. So it's easy and intuitive for them to find what they're looking for. They can download iTunes U audio and videos one at a time or subscribe to entire courses and have new items automatically downloaded as soon as they become available.



Accessible to all students

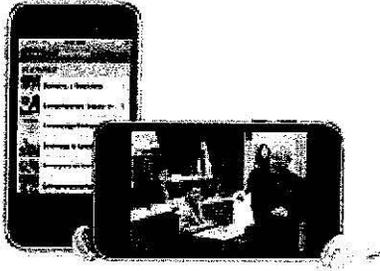
iTunes U can be a powerful and accessible learning tool for students with disabilities. For the vision-impaired, iTunes U works with VoiceOver, the built-in screen reader on the Mac, as well as with compatible screen readers on PCs. iTunes U also allows for learning with iPod and iPhone, which offer features to help vision-impaired students find the information they need (using VoiceOver on iPhone and iPod touch, and spoken feedback on iPod nano and iPod shuffle). And for students with physical or motor-skills needs, iTunes U brings the classroom to them, so they can learn at their own pace and in a more comfortable environment.

Learn more about Apple accessibility



Public or internal access

Your institution can decide whether to make its iTunes U content available only to members of your educational community (internal access) or to the world at large via the iTunes Store (public access). With an internal iTunes U site, user access is controlled through password protection. A public iTunes U site — such as those created by Yale, Stanford, UC Berkeley, Oxford, Cambridge, MIT, and broadcasters like PBS — distributes material for free on iTunes U. And there's always the option of creating both an internal and a public site for the best of both worlds.



Download directly to iPhone and iPod touch

With the 3.0 software update for iPhone and iPod touch, iTunes U is now directly accessible over both cellular and Wi-Fi networks through the iTunes Store.

Students can use the iTunes app to access iTunes U and search for content, then download and play it without ever having to access a computer.

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Custom Site

A screenshot of the iTunes U Custom Site editor interface. The interface is divided into several sections:

- Header:** A banner image area with a placeholder image of a building.
- DESCRIPTION:** A text area for the site's description.
- TEMPLATES:** A section with a warning message: "This Templates section is only visible when you edit your site's main description page. Use this section to create templates and design your own pages. If you do not create any templates, iTunes U uses the default page designs. For help creating and using templates, see the iTunes U documentation." Below this is a grid of template thumbnails.
- SETTINGS:** A sidebar on the right with various configuration options:
 - DESCRIPTION:** Includes fields for "EDIT ACCESS" and "EDIT PAGE PREFERENCES".
 - EDIT PAGE SETTINGS:** Includes "EDIT THEMES" and "SECTION LAYOUT" (with a "Reset" button).
 - THE WEBSITE:** Includes "PAGES & SUBPAGES" and "LOGOUT" options.
 - LINKS:** Includes "NEW LINK" and "EDIT LINKS" buttons.



How it works.

Your institution creates its own iTunes U site that leverages the familiar interface of the iTunes Store, so it's easy to build and even easier to use. Once your site is live, faculty members need little additional help from IT. They can start posting content right away — lectures, lab demonstrations, historical footage, and whatever else they choose to help bring their subjects to life.

Simple setup

Apple provides your institution with a free iTunes U site, complete with templates you can customize with your own branding. Administrative access is integrated with Apple ID, so it's simple to set up and manage your site. And you can use RSS to easily add and remove content.

Controlled content

Your institution can choose whether to make its site's content available only to enrolled students (internal access) or to the world at large via the iTunes Store (public access), or both. It's your content, so it's your call.

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Public Access

Local control, global reach

If your institution chooses to make its content available publicly on the iTunes Store, you'll still remain in complete control of the content that's distributed. The only difference is that people all over the world can access your institution's media. With an open iTunes U presence, your school can gain recognition — not to mention a competitive edge — as you reach out and share your knowledge.

Foster lifelong learning

For institutions that have a larger mission to spread knowledge, there's no better way to connect with people who are ready to learn than with an iTunes U site. Anyone with iTunes and access to the Internet can benefit from your institution's wealth of information.

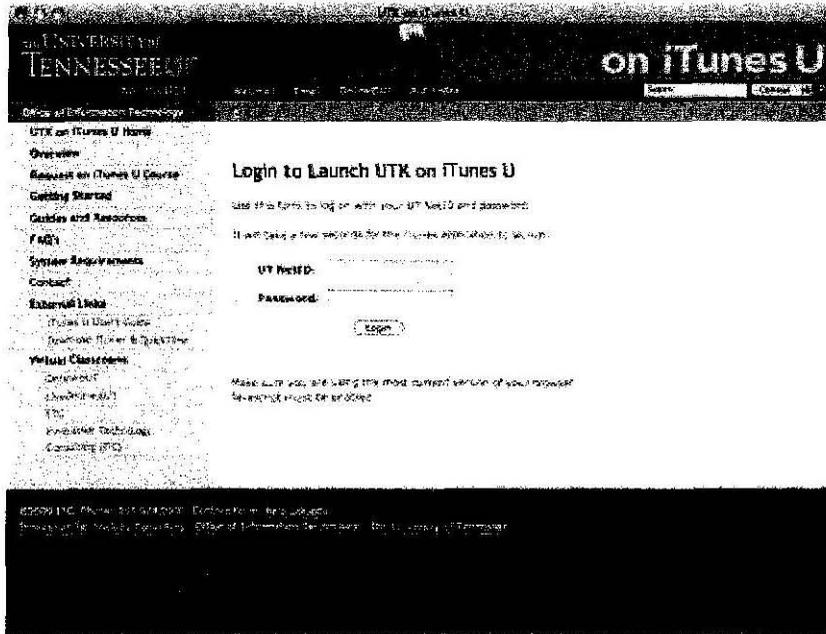
Create an extended community

A public iTunes U site gives alumni and parents a great way to stay connected with campus life. It's also a great way to raise your school's profile without raising your budget.



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Internal Access



Content for enrolled students

With a password-protected, internal-access iTunes U site, only members associated with your campus are allowed to view your content. Enrolled students can download iTunes U audio and videos one at a time or subscribe to an ongoing course or series and have new items downloaded automatically as soon as they're available.

Reach students wherever they are

An iTunes U site makes anywhere — a gym, a café, even the bus — a place of learning. And when students know that lectures will be made available on iTunes U, they can be more engaged in class.

Seamless integration

Because administrative access is integrated with Apple ID, it's easy to set up and manage your site, and add more Apple ID accounts to share site management responsibilities. And you can integrate with your current identity management systems to scale out access to hundreds or thousands of users. By default, iTunes U supports Shibboleth (the standards-based, open source authentication system). You can also create customized transfer scripts to integrate with other popular authentication systems, including Kerberos, LDAP, and Active Directory.

Local Tech Wire

Updated December 12, 2008

SAS to offer educational software to teachers at no cost



Jim Goodnight

CARY, N.C. — Jim Goodnight, one of the world's richest men and a strong advocate of education, is committing more money and resources to efforts to boost classroom learning.

At a speech Friday, Goodnight disclosed that SAS is making available free of charge its "SAS Curriculum Pathways" educational software package available.

Addressing members of the North Carolina General Assembly's Joint Legislative Technology Committee at N.C. State, the SAS co-founder, chief executive officer and majority owner said SAS made the decision in an effort to improve education.

"Shrinking budgets and pricing structures should not stand in the way of America's students receiving education technology that will engage them and better prepare them for today's workforce," Goodnight said.

SAS, the world's largest privately held software company, is giving up more than \$1 million in annual revenue and is prepared to absorb an as-yet undefined amount of cost as part of the effort, according to Bruce Friend, director of the Curriculum Pathways unit.

"We will be prepared to cover the additional costs of programming and support," Friend told WRAL.com. "All our content is included, and we plan to build out more."

A SAS spokesperson said Curriculum Pathways was generating \$1.3 million a year in revenue. Once current contracts expire, users will no longer pay to use the software, the spokesperson said.

The SAS education unit already has some 40 people involved in instructional design and content creation, Friend noted. Many of those are former teachers.

SAS also offers professional development and training for fees, but Friend noted that in North Carolina SAS does not charge for regional training programs. There also is no training charged for schools that offer one-on-one instruction, he said.

“Over time,” he added , SAS would add resources and personnel as needed to support the program based on growth.

In his speech, Goodnight said Curriculum Pathways provides educators with tools to help excite children about learning.

“Today’s students communicate, learn and interact with the world through technology, yet we ask them to leave that behind when they enter a classroom,” he said. “Education has not changed, but this generation of kids has.

“They are bored and they are dropping out,” he added. “Online education is one way we can begin to adapt our educational systems to their needs.”

SAS has spent more than a decade developing and supporting Curriculum Pathways. It is used by thousands of teachers across 30 states.

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Tags: SAS, NCSU, Jim Goodnight

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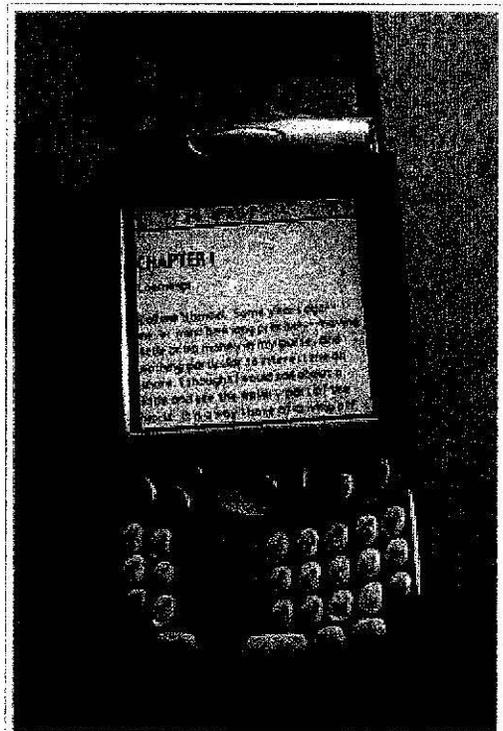
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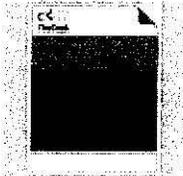
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On average, it is estimated that the U.S. newsprint sector has a 35% recycled fiber use-rate.

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Book Sector

Each year, approximately 30 million trees are used to make books sold in the United States—1,153 times the number of trees in New York City's Central Park. Many of these trees are sourced from endangered forests with devastating impacts on the people and wildlife that rely on them.

The good news is that the book industry is rapidly implementing practices that minimize negative social and environmental impacts.

Over 160 publishers, representing about 40% of the book industry's market share, have either developed strong environmental policies ([view policy template](#)), or signed the industry-generate treatise on responsible paper use. The [treatise](#) has also been endorsed by more than a dozen book printers and paper mills.

It is our hope that the Green Press Initiative will continue to act as a catalyst to bring stakeholders together, and reduce the negative impacts of the book industry associated with endangered forest, climate change and social justice.

