Age of Information Overload

(AP) — Books are being scanned to make them searchable on the Internet. Television broadcasts are being recorded and archived for online posterity. Radio shows, too, are getting their digital conversion — to podcasts.

With a few keystrokes, we'll soon be able to tap much of the world's knowledge. And we'll do it from nearly anywhere — already, newer iPods can carry all your music, digital photos and such TV classics as "Alfred Hitchcock Presents" along with more contemporary prime-time fare.

Will all this instantly accessible information make us much smarter, or simply more stressed? When can we break to think, absorb and ponder all this data?

"People are already struggling and feeling like they need to keep up with the variety of information sources they already have," said David Greenfield, a psychologist who wrote "Virtual Addiction." "There are upper limits to how much we can manage."

It may take better technology to cope with the problems better technology creates.

Of course, if used properly, the new resources have vast potential to shape how we live, study and think.

Consider books.

Nicole Quaranta, 22, is a typical youth. The New York University grad student in education does most of her research online. She'll check databases for academic journals and newspaper articles — but rarely books, even though she acknowledges an author who spent years on a 300-page book might have a unique perspective.

"The library is daunting because I have to go there and

everything is organized by academic area," Quaranta said. "I don't even know where to begin."

Were books as easily searchable as Web pages, she'd reconsider.

Otherwise, they might as well not exist.

With a generation growing up expecting everything on the Internet, libraries, nonprofit organizations and leading search companies like Yahoo Inc. and Microsoft Corp. are committing hundreds of millions of dollars collectively to scan books and other printed materials so they can be indexed and retrieved online. HarperCollins Publishers even announced plans in mid-December to digitize its vast catalog.

Access to most works still in copyright remains limited, though. Google Inc., for instance, is displaying only portions and sending those wanting more to a bookstore or nearby library. Even so, publishers and authors groups have sued Google.

The online access will let scholars and everyday readers obtain firsthand accounts from books rather than secondary interpretations in Web postings that can be inaccurate or biased.

"There's a lot of really good, although not well-known, books that are really almost impossible to get hold of," said Dick Gross, 61, a retired radiological physicist in Oregon City, Oregon, who seeks older books for bible teachings.

"They are locked up in somebody's library without people who live very far away having access to it."

Alan Staples Jr., 23, a Lawrence, Kansas, businessman, likes the idea of online books so much that he's even willing to pay a few pennies a page just to avoid a library.

Indeed, Amazon.com Inc. announced such a program in November

and is working with publishers to get the necessary rights.

Meanwhile, television shows formerly locked up in network or studio vaults are starting to emerge online.

"Before, once it has been aired, it's gone, and it doesn't really contribute to our knowledge space," said Jakob Nielsen, a Web design expert with Nielsen Norman Group.

For the past year, Google has been digitally recording news and other programs from several TV stations in the San Francisco area (although Google has limited display to still images and closed-captioned text until it settles copyright matters).

Early next year, America Online Inc. and Warner Bros. will offer free access to dozens of old television shows, including "Welcome Back Kotter." And Apple Computer Inc. recently started selling episodes of shows old and new from ABC and NBC Universal for \$1.99 each — viewable on computers and its newer iPods. The catalog includes "Lost" and "Law & Order."

TiVo Inc. is also getting more mobile, expanding its digital recording service to permit video transfers to iPods and Sony Corp.'s PlayStation Portable.

In audio, National Public Radio has been producing free podcasts featuring clips or entire programs. Anyone with a music player can listen anytime, anywhere.

And then there are materials born digital: Photos from digital cameras can now be easily shared, even among strangers, at sites like Yahoo's Flickr.

Steve Jones, a professor of communications at the University of Illinois at Chicago, says centralization and easy access could make people smarter: Instead of wasting time finding information, they can focus more on assessing its worth.

But there's the danger, he says, that people will simply take

information for granted: Assuming that whatever pops up first is the best.

Worse, people may simply tune out.

Field research by Jennifer Kayahara, a sociology graduate student at the University of Toronto, shows people are overwhelmed as it is.

"For people who don't search extensively online, that's the reason they give: 'There's too much,"' she said, adding that people worry they might miss something yet don't have the time to seek it out.

The key may lie in technologies that push to the top items you seek — or would like, even if you don't know to look. Search analyst Danny Sullivan describes such a tool as "some sort of metal detector or magnet to pull all the good stuff out of the haystack."

Virtual communities may contribute to that end.

An online bookmarking service called del.icio.us, just purchased by Yahoo, lets you discover new sites by checking those frequented by people with bookmarks similar to yours. The idea is that people who share bookmarks are also likely to share interests.

Imagine the potential if a group of scholars in African history could get one set of search results, perhaps with an emphasis on books and academic journals, while music lovers could get another set, entertainment-oriented, using the same search terms.

Del.icio.us, Flickr and several newer services also support tagging, the ability to organize items by keywords. The collective human wisdom that goes into tagging is bound to identify things a computer might not otherwise know to retrieve.

Not that technology itself won't be important, and search companies are actively seeking better techniques, particularly for audio and video.

"Social networks, search engines and things yet invented are critical as we bring millions of movies, books and musical recordings online," said Brewster Kahle, a search pioneer who created the Internet Archive, a nonprofit preservation group.

Even more important will be good research skills — infoliteracy, if you will. That means knowing where and how to look, and evaluating what you get back.

And that's crucial as people get inundated with electronic information 24/7 — not just at their computers. Cell phones are being transformed into search and browsing tools, and iPods are becoming small television displays.

Rachel Edelman, 21, an NYU junior in communications studies, finds her vintage, music-only iPod enough of a distraction.

"If I'm listening to music, I'm not going to be thinking about other things, about school work, friends, family or relationships, even just noticing things on the street and noticing changes in the city," she said.

And with wireless Internet access creeping into every niche of life — it's even coming to airplanes and taxis — we'll have to carve out retreats from the information age.

"If you fill every waking minute with more media, you never do any independent thinking," Nielsen said. "You may have all the specific pieces of information, but the higher level is knowledge and understanding. You don't have time for that reflection if it's being thrown at you at never-ending streams.

"All you can do is duck."