

Op-Ed

The New York Times
ON THE WEB

[Home](#)
[Site Index](#)
[Site Search](#)
[Forums](#)
[Archives](#)
[Marketplace](#)

November 17, 1999

FOREIGN AFFAIRS / By THOMAS L. FRIEDMAN

Next, It's E-ducation

Related Articles

- [Op-Ed Columns Archive](#)

Forum

- [Join a Discussion on Thomas Friedman](#)

The two most telling stories about the 10th anniversary of the fall of the Berlin Wall actually ran in the business sections of The New York Times and The Washington Post.

One was a short article in the back pages of The Times that reported that the number of adults using the Internet in the U.S. had surpassed 100 million, meaning that roughly half the U.S. population is now online.

The other article, in The Post, noted that Amazon.com was shipping an extraordinary number of copies of Adolf Hitler's racist manifesto, "Mein Kampf," to buyers in Germany. It is illegal to sell "Mein Kampf" in bookstores in Germany or publish it there. But as we move from the world of Borders books to the world of borderless books, a k a Amazon.com, Germans can order "Mein Kampf" online and have it delivered by mail, and their government is powerless to stop it. Indeed, Amazon shipped so many copies of "Mein Kampf" to Germany that over the summer Hitler made Amazon's top 10 best-seller list among German buyers.

What these two little stories tell is that 10 years after the fall of the Berlin Wall a whole other set of walls is starting to fall, as we move deeper into the Internet revolution. And this is not simply an American phenomenon, nor, as the "Mein Kampf" example illustrates, will it automatically bring out the best in people.

So what comes next? With the first phase of this wall-destroying Internet revolution -- the e-mail and e-commerce phase -- now fully under way, I posed that question to John Chambers. Mr. Chambers runs Cisco Systems, which makes the routers that run the Internet. Beware: He has an obvious stake in touting the Internet. But note: His past predictions have proved extremely accurate.

Mr. Chambers argued that the second phase of the Internet revolution -- businesses absorbing the Internet and using it to relate to one another -- was now just taking off, and that this was going to be a monster market. There is barely a C.E.O. in the developed world who in the last six months hasn't said to himself: "Oh my God! This Internet thing is real. Somebody call me an Internet doctor and wire me up."

Once a C.E.O. understands that absorbing the Net into every aspect of his or her business "is the only way they are going to survive," said Mr. Chambers, "they are going to be spending big bucks on it. That's why I believe that Y2K will be short-lived, and after that we are going to see one of the best years the computer industry has ever seen."

So now that commerce has moved to the Net, and the Net is moving into business, what comes after that?

"Education," said Mr. Chambers. "The next big killer application for the Internet is going to be education. Education over the Internet is going to be so big it is going to make e-mail usage look like a rounding error" in terms of the Internet capacity it will consume.

What will drive it will be the demands on companies, in an intensely competitive global economy, to keep improving productivity. E-learning, insists Mr. Chambers, if done right, can provide faster learning, at lower costs, with more accountability, thereby enabling both companies and schools to keep up with changes in the global economy that now occur at Net speed. Schools and countries that ignore this, he says, will suffer the same fate as big department stores that thought e-commerce was overrated.

If universities move properly, they will offer the ideal combination of online and instructor-led learning, argues Mr. Chambers. But if universities don't reinvent their curriculums and how they deliver them, for an increasingly Net-driven economy, many students, particularly in information technology fields, "will go to schools online," he says. Many big firms -- Cisco, G.E., I.B.M., AT&T -- are starting online academies to train new

employees and to constantly upgrade the skills of existing ones.

"Unlike in the industrial revolution when you had to be in the right country or city to participate, in this new era capital will flow to whichever countries and companies install the best Internet and educational capabilities," says Mr. Chambers. Governments and unions will be powerless to stop this capital flow, which will affect the global balance of economic power. Although the technology exists today, this revolution will take about 10 years to be fully in place. But, insists Mr. Chambers, "it's coming next."

[Home](#) | [Site Index](#) | [Site Search](#) | [Forums](#) | [Archives](#) | [Marketplace](#)

[Quick News](#) | [Page One Plus](#) | [International](#) | [National/N.Y.](#) | [Business](#) | [Technology](#) | [Science](#) | [Sports](#) | [Weather](#) | [Editorial](#) | [Op-Ed](#) | [Arts](#) | [Automobiles](#) | [Books](#) | [Diversions](#) | [Job Market](#) | [Real Estate](#) | [Travel](#)

[Help/Feedback](#) | [Classifieds](#) | [Services](#) | [New York Today](#)

[Copyright 1999 The New York Times Company](#)