## TELETEXT SYSTEMS

# Home Computers Bring Services to Users

*Electronic networks provide subscribers with at-home shopping, mail, news, banking, weather, and entertainment*

### By Simson L. Garfinkel
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=========== BOSTON ===========

CHRISSY GILBERT, 11, didn't know anybody in Denver when her family moved there in October, but her dad had a home computer tied into a national information network.

"I wrote that I just moved to Colorado and I didn't have any friends, and if somebody would write to me I would be really happy," she recalls. In a few days, she had gotten electronic mail messages from more than 30 people her age who wanted to chat.

More and more people are using home computers as gateways into national networks that allow them to shop, make travel reservations, and communicate with other computer users. The largest computer-network system in the world is France's Minitel, with more than 5 million users and 10,000 services available. The numbers of systems and subscribers in the United States are growing rapidly.

The network Chrissy used is operated by Prodigy Service Company, a joint venture between International Business Machines (IBM) Corporation and Sears Roebuck & Company. Started in 1984, Prodigy has been open to the public since October 1988. More than 165,000 households around the country have signed up in the past 14 months – 65,000 of them in the past three months, says Steven Hein, a program manager at Prodigy.

When Daniel Dodson comes home at night, one of the first things he does is call up the Prodigy service. "It's quicker than waiting around for the news to come on," says Mr. Dodson, a graduate student at the Harvard Business School in Cambridge, Mass. The news coverage isn't in-depth, but it is comprehensive. "Prodigy is a little bit about everything. It's also the fastest way to look at my stocks."

But Prodigy is more than electronic mail, news, and stock quotes. The system has more than 750 different services, each instantly available by typing a single "jumpword." Subscribers use Prodigy for banking, making airplane reservations, and reading excerpts from Consumer Reports. But the network's real strength is home shopping. Anything from the Sears or J.C. Penney catalogs (and many more) can be electronically ordered. In some cities, subscribers can even do their grocery shopping by

computer and have their purchases delivered.

It's the computer-turned-salesman, says Mr. Hein, pointing to a demographic chart of the US population. As the baby boomers "age and go into their peak earning years, there isn't going to be anybody to serve them," he says. One of Sears's motivations for investing in Prodigy, he says, is the increasing difficulty of finding and keeping a trained sales force. Having people using a computer to serve themselves is Prodigy's answer.

Prodigy is a recent upstart in the US teletext market, given the name because it uses telephone lines to bring textual information to the home. The oldest and largest nationwide system is Compuserve, now 10-years-old with over 500,000 subscribers, says Karen Nielsen, an analyst at Link Resources in New York.

But Compuserve costs $6 to $12.50 for each hour that a person is connected to the network. A similar system run by General Electric Information Services costs $5 to $10 per hour. Subscribers to Prodigy are billed $9.95 per month, and passwords for up to six family members are included. Ms. Nielsen says the flat rate is responsible for Prodigy's meteoric growth.

"People don't like the feeling that the clock is ticking," she says. Two things help keep the costs down for subscribers: advertisements and technology.

LIKE most newspapers and television shows, Prodigy solicits advertising. Along with the information Prodigy subscribers request, the ads show up at the bottom of nearly every screen. The system can even target ads for particular audiences, since the computer knows the age and sex of every user. Prodigy re-

ceives a small commission on anything sold through the system.

Just as important as the ads, says Hein, is the way Prodigy uses the power built into the consumer's personal computer (PC). Most teletext systems use the PC as a simple display device. With the Prodigy service, it is actively involved in formatting text, displaying graphics, and processing the user's input.

"Sixty percent of the processing is done on the PC," says Hein. For example, if the user tells the computer to display a weather map of the United States, the outline of the map itself is displayed from a chunk of information stored on the computer's hard disk: Only the "overlays," or the parts of the weather map that can change, are transmitted over the telephone lines. Because the user's PC does so much work, Prodigy can use less powerful – and less expensive – computers at

the other end of the phone line.

But Prodigy's cost cutting doesn't stop there. Teletext systems have traditionally relied on large central computers, capable of serving thousands of users, to act as information warehouses, says Sirajul Islam, the company's manager of communications technology. Prodigy uses small minicomputers called "local sites" in each city, which can serve only a few hundred people at a time. Although each local site is connected to Prodigy's central computer over a high-speed communications line, the local sites also have several hundred million characters of their own information storage.

Once a user in a city asks for a piece of information, such as the weather map overlay, from Prodigy's headquarters in White Plains, N.Y., that information stays in the local site's storage system, in case other users in the same city ask for it.

Less national in scope is U.S. Videotel, a Texas-based teletext system. Unlike Prodigy, Videotel "is a local service," says Steve Brody, the company's senior vice-president for sales and marketing. Because of the local accent, U.S. Videotel is available in only two cities – Houston and Dallas – but the company plans to be in "10 to 20 markets within the next two years," Mr. Brody says.

A consumer doesn't need a home computer to use U.S. Videotel. The service's $14.95 monthly fee includes rental of a terminal. Videotel currently has 21,000 subscribers.

Prodigy requires subscribers to have their own computers, but Hein doesn't see that as a big disadvantage. "Right now, there are 15 million households with a personal computer," he says. Of those machines, more than 8 million can run the Prodigy software – a number that is growing 25 percent annually, he adds.

Despite its hope to appeal to the mass market, 10 percent of Prodigy's users operate businesses from their own homes.

"The home office household is a pretty important market in terms of the adoption of technology," says Jeannette Noyes, research director of consumer communications at the Yankee Group, a Boston market research firm. "They are the kind of households that like to learn about new things."

So far, Sears and IBM have invested more than $600 million in Prodigy, reports Link Resources. Analysts say perhaps as much as $400 million more will be required before the service begins to turn a profit – if it ever does.
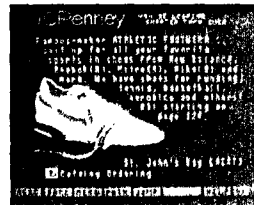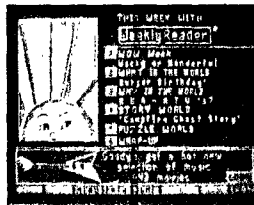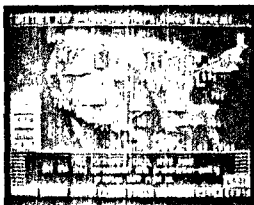
ON SCREEN: *Prodigy offers an array of services, including programs for weather-watchers, kids, and catalog shoppers.*

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# The Computer Smiled When I Played Prodigy

=========== CAMBRIDGE, MASS. ===========

I START by typing "Prodigy" on the keyboard. After a moment my computer asks me to type my personal ID and my password; then it calls the local Boston Prodigy site, and I'm off and running.

The screen clears and I'm looking at Prodigy's "front page." In the upper left-hand corner, the flashing words "new mail" tell me that I have a message. In the middle of the screen are three selections from Prodigy's "News and Features" choices, a notice that says that 40,000 titles of the "Reader's Catalog" are now available on the system, and a reminder to look at the "1989 in Review" edition of the Prodigy Star.

As I read my message, I see a teaser for an advertisement at the bottom of the screen: "Give me Liberty! Financial liberty with Private Reserve. LOOK." By pressing the letter "L" and the "enter" key, I can look at the advertisement in greater detail. Prodigy ads are worlds in themselves, sometimes complete with their own games, information screens, and order blanks. (Prodigy bills advertisers every time a user looks into an ad. They also get billed if a user requests additional information.)

By typing "p" (for "path"), I jump to the weather map of the United States. (Path is a set of favorite Prodigy services that is customized for each user.) At the bottom of the map is another advertisement.

The Prodigy software has been written for the complete computer illiterate: Virtually everything is handled automatically by the company's software, from installing itself on my computer's hard disk to dialing the telephone.

For a change of pace, I jump to "Siskel," Gene Siskel's movie column, where I'm given a 110-word version of his review of "Always." There's a note after the review that Mr. Siskel is available as an expert on the "Arts Club" bulletin board: users can send him mail and he answers.

Prodigy feels a lot like television, both in its presentation and its content: a little bit of everything, but nothing in any great depth. The same is true of the service's home shopping features.

"You can get technical information [using Prodigy] that isn't even available in the store. One of the things that this will evolve into is a direct communication medium between the vendor and the consumer, which until now has been a very expensive thing to do," says a Prodigy program manager, Steve Hein. But right now, the only "technical information" that I could get on Kodak's TMAX P3200 professional film was that it is "available in a 35 mm, 36-exposure roll."

There are golden nuggets, like the 20-screen history of the US space program that I stumbled across. If you don't know a bit from a byte, if you think a Macintosh is a fruit, yet you want discount airline tickets and the convenience of shopping at home, then Prodigy may be for you.

– S.L.G.