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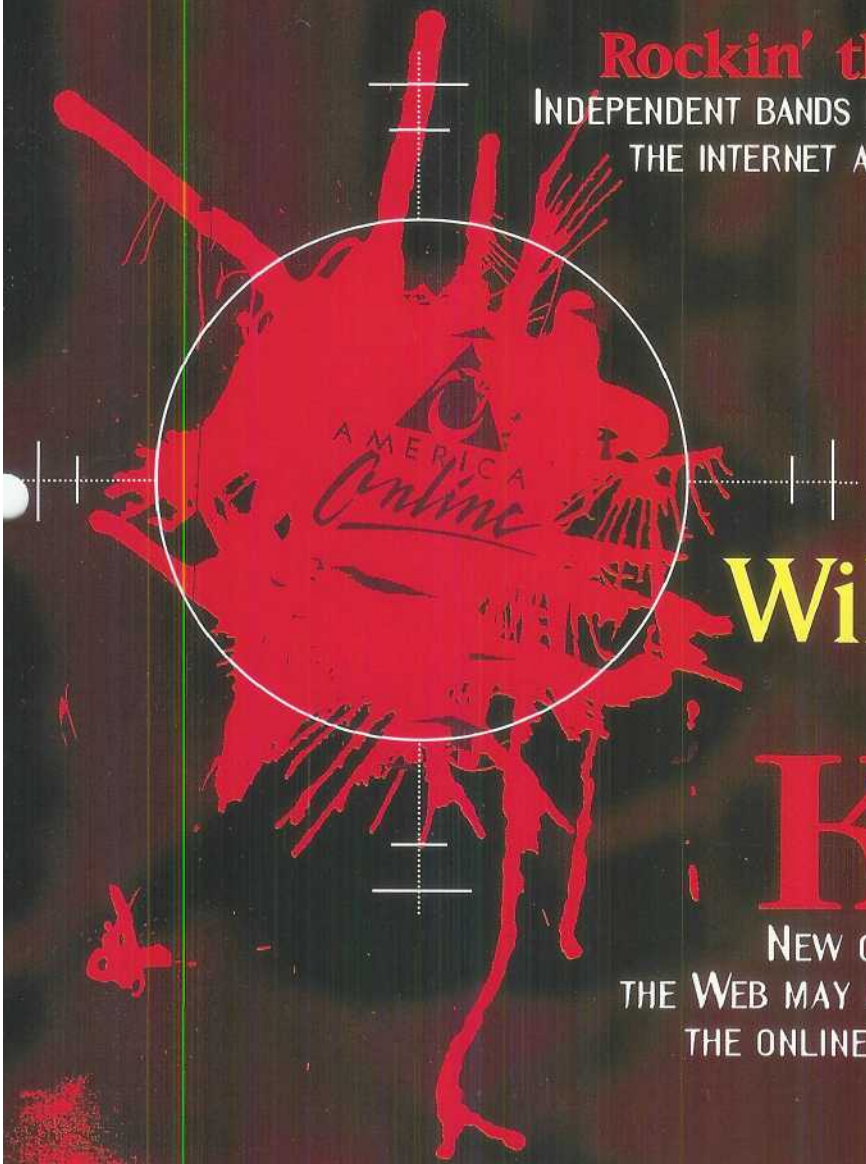

Will the Internet KILL AOL?

NEW COMPETITION FROM THE WEB MAY MEAN THE END OF THE ONLINE WORLD AS WE KNOW IT

Archiving Anarchy:

A VISIT TO CANDYLAND

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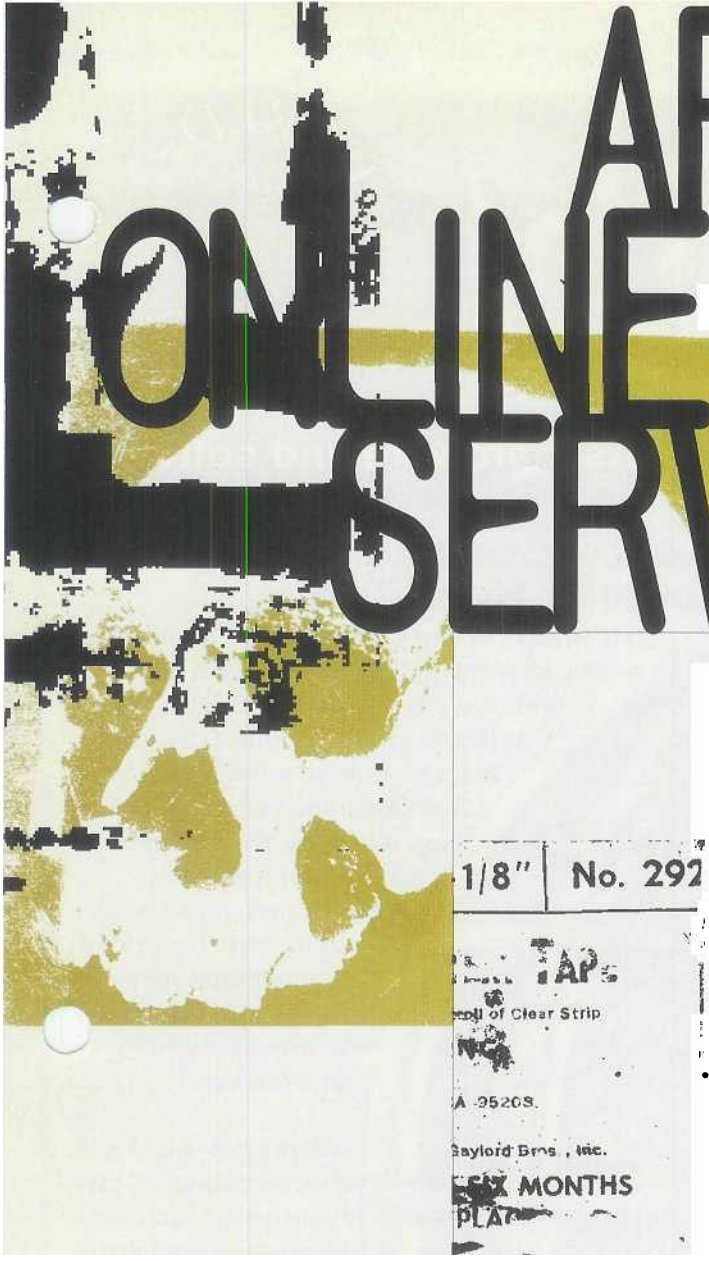
ARE ONLINE SERVICES dead?

BY SIMSON L. *GARFINKEL*



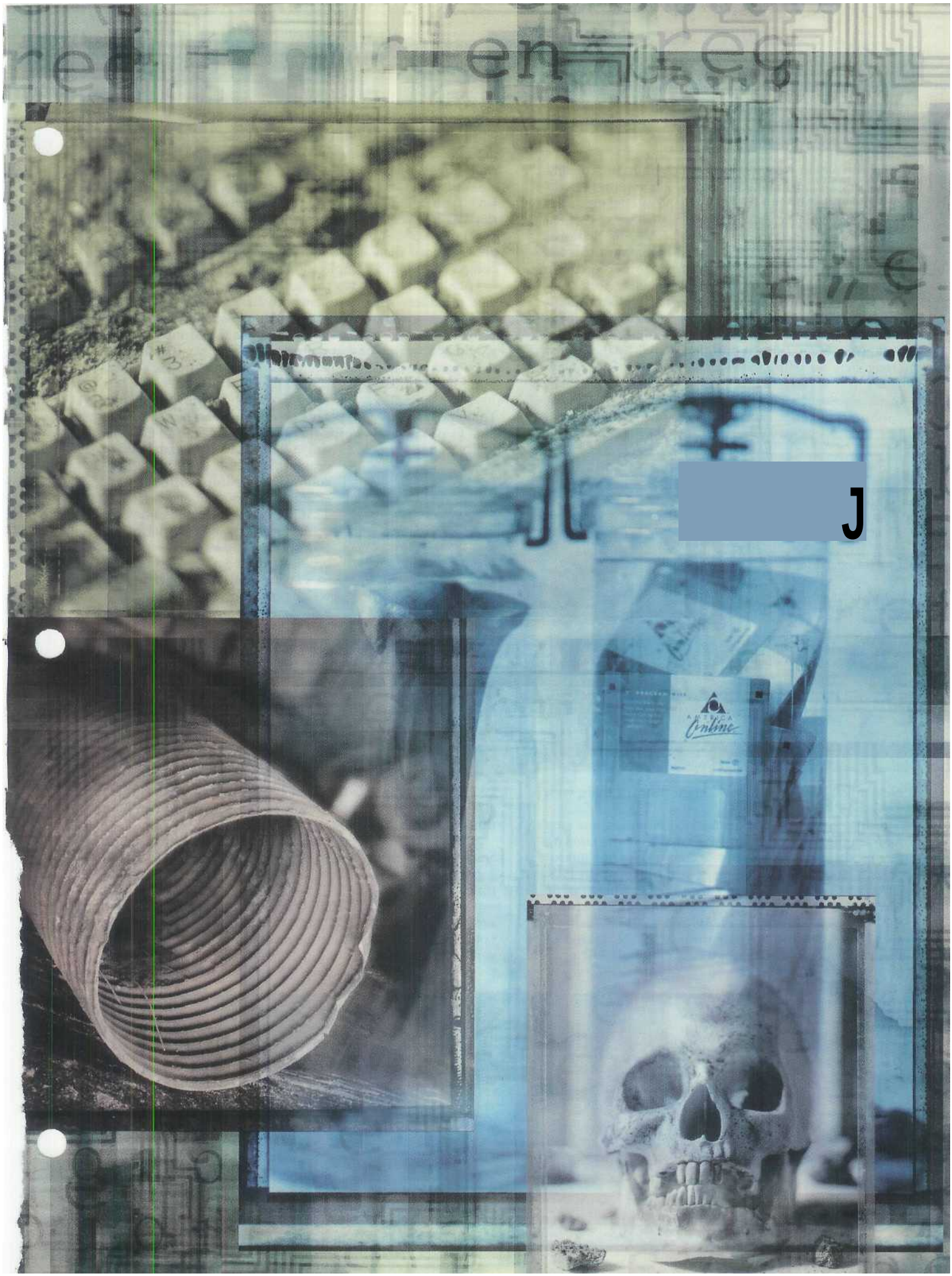
You would never know that AOL, Prodigy and CompuServe have a serious problem by looking at their balance sheets. Last year was their best year ever. The reason is simple: The Internet is booming, and for most people in the country, the easiest way to get electronic mail and be able to surf the World Wide Web is by signing up with one of the nation's Big Three online service providers.

America Online, CompuServe and Prodigy have literally been spamming the world with floppy disks and CD-ROMs containing their software. You see them everywhere: in the mail, bundled around magazines, dropped in piles at universities and conferences. Buy a modem, and you'll get disks for two or three of the services. Buy a computer, and the software's probably preinstalled. The spams are coming so fast and furious that many of us have been able to stop buying floppy disks—we simply rely on erasing the AOL disks that show up every week.

And yet, tough times for these companies may only be a few months away. That's because nearly everybody is getting into the Internet service provider business, driving costs down to bargain-basement levels. Meanwhile, growth of the Web is pushing content and electronic communities out from under the clutches of the online behemouths. That spells trouble for these online giants, which have traditionally used their discussion groups, chat rooms, file libraries and online databanks as their primary tool for attracting new customers. With the growth of the Web, this competitive advantage is quickly evaporating.

"I think that maybe two years from now there will be no difference between what we call an online service and what we call an Internet service," says Steve Franco, an analyst with the Yankee Group in Boston who closely follows the Internet and the online world. "Either the online service providers will migrate and become ISPs, or they will be forced out of the business. The model of controlling proprietary content will not work in a world dominated by the World Wide Web."

But if they're going to compete, they're going to have a rough ride. That's because a new generation of Internet access providers are about to hit the ground running. Each of these firms has revenue, capital and market presence that dwarfs all three online services—combined. With names like


J
AMERICA
Online

MCI, AT&T and Pacific Bell, these firms are the schoolyard bullies, ready to jump into the sandbox and take whatever they want.

So why aren't the "Big Three" quaking in their boots?

* * *

If you live in New England, then you have probably heard of TIAC, formally known as The Internet Access Company. But if you don't live in New England, then you probably never will.

TIAC got its start in January 1994, in Bedford, Mass., using a a handful of maxed-out credit cards for capital. "We now have 70 employees in Bedford. We have a satellite office on Broadway in New York City. We have a satellite office in South Windsor, Conneticut. We have POPs (points of presence) basically all over Eastern and Western Massachusetts, Connecticut, New York, New Hampshire and Rhode Island. By the end of December, we will also have Washington, D.C., New Jersey and Maine. By this time next year, or most likely much sooner, we expect to have coverage in excess of 2,500 communities east of the Mississippi River," says Jeff Aizley, a spokesperson for the company. In November, TIAC boasted two high-speed T1 lines, with a third Tl "on order."

TIAC is a local Internet Service Provider, one step up from the "mom and pop" ISPs that have sprouted up like mushrooms in most of the country's major metropolitan areas during the past year. Like most ISPs, TIAC's prices are far cheaper than the Big Three online services—$29 a month gets you 100 hours of service, $49 gets you 300 hours. TIAC is also offering high-speed access to the Internet through ISDN, a kind of digital telephone service, for an astonishingly low price of just $39 for 100 hours.

As for customers, "That number grows by a couple hundred every day," says Aizley. "Last I checked, it was 13,500. I can open up our user database and tell you exactly...14,526 customers right now. Oops, make that 14,527."

And yet, for all of Aizley's bravado, TIAC isn't even a blip on AOL's radar screens. Each day last fall, when TIAC was growing by a couple hundred customers every day, AOL was adding more than 8,000 subscribers. The two companies are in a completely different league.

Analysts say that it's the small Internet service providers who have cause to be alarmed. "There are something like 1,400 Internet service providers in the country today," says Yankee Group's Franco. "I would be surprised if that number is bigger than 400 at this time next year. As these companies continue to grow, they really don't have the expertise to scale their networks."

It's a completely different business to provide service to 1,000 people, 100,000 people or a million and more. For example, TIAC currently keeps track of all of its customers using a single Filemaker Pro database. Last year, when a bolt of lightning hit the company's Bedford offices, TIAC's entire network went down. Unless TIAC is able to overhaul and redevelop its network, its internal information systems and its very way of doing business, the company won't be able to expand and could die under the weight of its own customers. Franco expects that many of the smaller ISPs will either merge with larger firms or close up shop.

If the TIACs of the world aren't a fear to AOL, a more serious threat might be the large-scale ISPs that have hundreds of thousands of subscribers, such as San Jose-based NETCOM On-Line Communication Services, which last year grew 221 percent, from 41,500 subscribers in 1994 to 232,800 subscribers in 1995, or PSINet, which claims to service 1.5 million people as the result of providing Internet connections to more than 6,000 organizations.

"Baloney," says Ted Leonsis, president of America Online Services Co. "Every month we are replicating NETCOM," he explains, citing AOL's monthly growth rate of 250,000 additional subscribers.

Leonsis says that he isn't worried about the regional Internet service providers at all. "I don't think that is a good business. If you just look at the history of media, it is the big brands" that survive, he says.

Joshua Harrif, president of Jupiter Communications, a

THE CONTENDERS:	AOL	COMPUSERVE	PRODIGY
CUSTOMERS*	4 MILLION	2.2 MILLION	1.4 MILLION
SALES ($M)	394.3	582.8	200.0
%CHANGE:	277.7%	36.6%	11.1%
EMPLOYEES:	527	3,000	600
YEAR END:	JUNE 95	APRIL 95	DECEMBER 94

*(ESTIMATE AS OF DEC. 95)

from a 28.8 analog dial modem, step up to 128kbit/sec ISDN, and go all the way to 155Mbits/sec next year."

Hronicek knows that the future isn't just access—it's content too—and so he's planning on offering that as well, including chat services and discussion groups. But there would be an important difference between Pacific Bell's services and the groups on AOL: "Ours would have much more of a local flavor," he says. "We think that is one of the things that the online services are missing. It is difficult for them to zero in on local issues. A lot of people would rather discuss (things) locally, where they could (easily reach out and) meet each other outside the 'net."

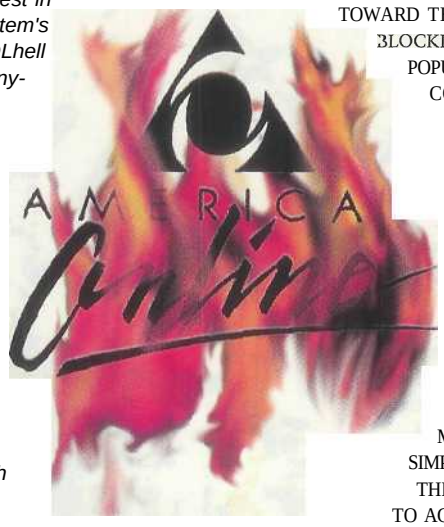
Pacific Bell may be in the forefront of the local Regional Bell Operating Companies (RBOCs), but it

AOL: HEAVEN OR HELL?

Pity poor America Online. Fighting a nearly constant public-relations battle, in the past year the mammoth online service has been subjected to everything from viruses to lawsuits to mass embarrassment sites virtually screaming "AOL Sucks."

At press time, a Trojan Horse virus was found circulating in e-mail through the AOL network. In mid-November, the company was warning users not to download files or to open e-mail from addresses they did not recognize. The irony factor was high: The real virus appeared just as the long-running hoax about the similar "Good-Times" virus infiltrating the AOL system was begining to die. The Federal Communications Commission and the Pentagon studied the system and declared the earlier alleged virus a hoax. But the virus last fall was dangerously real. Opening the e-mail containing the virus would not endanger a user's computer, an AOL spokesperson said. But trying to open the attached file, AOL Gold through its install.exe file could wipe out an entire hard drive.

Meanwhile, hackers have taken a keen interest in AOL's software. Tracking through bugs in the system's front end, hackers created a program called AOLhell that allowed those who used it to log in anonymously, read other people's mail and disrupt chat rooms—for free. Internet Underground *downloaded a third-level beta version from http://www.intersurf.com/~materva/aolsucks.html. The hacking abilities were somewhat tame, but it made us wonder what would happen if hackers found truly serious flaws in the software, allowing access to credit card numbers, for example.*



We also downloaded the software from http://www. intersurf. com/~materva /aolsucks.html, one of the many AOL Sucks Web pages that have sprung up in the past year. At least two of the maintainers of such sites say they have been threatened with legal action by AOL. The online service's lawyers also reportedly threatened the CandyMan, profiled on page 78. While you can get instructions for making dozens of bombs at his site, thanks to AOL lawyers, you can't download the AOLhell software from Candy Land at http://www.mcs.net/~candyman/ Setting up a site to talk about why AOL sucks isn't exactly original. Among those already in operation (We'd list the individual names except they all have some variation on "Why AOL Sucks"):

http://www.cloud9.net/~jegelhof/
http://www.tiLe.net/tile/news/aLtaols.html
http://www.itw.com/~byazji/aol.html
ftp://ftp.crl.com/users/ro/destiny/aoL
http://www.iglou.com/members/will.html
http://powered.cs.yale.edu:8000/~miller/aol/aol.html

Of course, there's also an anti-CompuServe site at http://www.charm.net/~turtle/cis.html. Don't get us started on anti-Microsoft Pages, there's at least half a dozen of those, too. The Web sites sprouted up following the creation of alt.aol.sucks, a newsgroup for those with beefs about the company. Among their gripes were remarks about bad connections, slow download time, inappropriate billing, high costs for moderate usage, difficulty with canceling the subscription and a support staff that often was less than helpful.

A major complaint about AOL has been their censorship of chat rooms and bulletin boards. AOL detractors say the company maintains a secret

LIST OF WORDS AND SUBJECT MATTER BANNED IN PUBLIC POSTINGS. AMONG THE FORBIDDEN ARE: THE WORDS "DEFECATION" "SUBMISSIVE," "HORNY" AND "SEXUAL DEVICES," AND DISCUSSION ABOUT SEXUAL BONDAGE TECHNIQUES OR CROSS-DRESSING. AOL WORKERS OVERSEE THE ROOMS, DELETING THE OBJECTIONABLE AND CANCELING THE ACCOUNTS OF FLAGRANT VIOLATORS. TO THOSE USED TO THE UNCENSORED NEWSGROUP ATMOSPHERE OF THE 'NET IN GENERAL, THIS TYPE OF BIG BROTHER ACTIVITY COMES OFF AS UNSETTLING.

AT FIRST, THE ANTI-AOL COMMENTS WERE AIMED AT THE COMPNAY, MOST MADE BY DISPIRITED CURRENT OR FORMER AOL USERS. THEN, THE HOSTILITY BECAME DIRECTED TOWARD THE USERS THEMSELVES. SEVERAL SITES BEGAN BLOCKING OUT AOL ALTOGETHER. ONE EXAMPLE: A POPULAR *X-FILES* FAN SITE AT HTTP://WWW.SSC.COM/~ROLAND/X-FILES/X-FILES.HTML. THE SITE REQUIRES USERS TO GO THROUGH A PHONY SECURITY LOGIN IN ORDER TO GAIN ACCESS (RANDOM WORDS WORK). BUT SO MANY AOL USERS COULDN'T FIGURE IT OUT, SAYS WEBMASTER LIEM BAHNEMAN, THAT HE OPTED TO JUST BLOCK THEM OUT.

ANOTHER USER IN AUSTRALIA OFFERS SOFTWARE TO BLOCK AOLERS FROM SITES AT FTP://FTP.NETCOM.COM/PUB/PO/POULOSIO/POULOSIO.HTML.

MANY USERS WERE FLAMED IN NEWSGROUPS SIMPLY FOR HAVING AN AOL.C0M SUFFIX. THE THEORY: ANYONE WHO CAN'T FIGURE OUT HOW TO ACCESS THE 'NET BY SOME OTHER MEANS MUST BE STUPID, LAZY OR BOTH.

WORSE THAN FLAMES AGAINST THE COMPANY IS THE CLASS-ACTION LAWSUIT FILED AGAINST IT LAST FALL BY A GROUP OF CALIFORNIA LAWYERS. THE LAWYERS CLAIM THAT AOL OVERCHARGED SUBSCRIBERS BY ROUNDING UP ESTIMATED TIME CHARGES. WHILE THE OVERALL EFFECT MEANS POCKET CHANGE TO INDIVIDUAL USERS, IT COULD MEAN BIG MONEY FOR THE COMPANY. IF THE LAWYERS WIN ANY SETTLEMENT, IT WILL PROBABLY MEAN BIG MONEY FOR THEM BUT PROBABLY LITTLE MONETARY RECOUP FOR AOL USERS THEMSELVES.

DOES AOL WORRY ABOUT ALL THESE PROBLEMS? FROM WHAT WE CAN GATHER, NOT REALLY. ULTIMATELY, THE COMPANY'S AIM IS TO MAKE MONEY, LIKE ALL BUSINESS VENTURES. THE WIDGETS THEY MANUFACTURE ARE ABSTRACT: TIME ONLINE. DESPITE THE ISSUES RAISED BY THOSE IN ALT.AOL.SUCKS OR THE AOL SUCK HOME PAGES, THE COMPANY CONTINUES TO RAKE IN HORDES OF CASH, FROM BOTH AMAZING NUMBERS OF NEW USERS AND THROUGH BUSINESS AGREEMENTS WITH CONTENT PROVIDERS. THE DEBATE ABOUT WHETHER AOL REALLY OFFERS INTERNET ACCESS, A SUBJECT OF HUGE DEBATE AMONG ANTI-AOLERS, SEEMS IRRELEVANT TO COMPANY REPRESENTATIVES.

"THERE'S NO MONEY CHANGING HANDS ON THE WEB" GLEEFULLY REMARKS TED LEONSIS, PRESIDENT OF AOL SERVICES COMPANY. AT AOL, THERE'S LOTS OF CASH FLOW. THAT'S ALL THAT MATTERS, FOR NOW.

- Kathleen Flinn

certainly isn't alone. "We do not provide Internet access directly at this time," says Ted Creech, a spokesperson for Bell South. Nevertheless, Bell South is building its own sophisticated IP network through its coverage area. "From a Bell South and an RBOC perspective, there are some regulatory questions as to how much of an end-retailer of Internet access we can be."

Indeed, the regulatory question is the big wild card. Regulatory hassles might keep the Baby Bells out of the Internet market for a few years, but in the end, it is a sure bet that they will be offering dial tone and IP together at a single low price.

Competition in the Internet arena is also likely to come from AT&T, MCI Communications and Sprint, who are all planning on offering Internet access with long-distance service. These three companies are in a good position to sell Internet access to consumers, since they already run large chunks of the Internet backbone. Then there are the cable companies, many of which are conducting trails of high-speed access to the home using special "cable modems," which can offer speeds that are 20 times faster than a conventional telephone line.

Finally, for a really out-of-this-world Internet service provider, how about Hughes Network Service, part of the multibillion dollar Hughes aerospace and defense conglomerate? Last year, Hughes turned on its DirecPC Internet access. The service has national coverage today and gives people 400 kbits/sec access for surfing the web. Cost: just $30/month.

"The big guys haven't arrived yet," says Bill Day, vice president and general manager of Prodigy Services Company. Right now, Prodigy is making a lot of money by providing access to the Internet. Day says that Prodigy is investing that money in its own operations, trying to make its network more efficient in an effort to lower costs. Hopefully, when the "big guys" come to the market, Day says, they won't be able to underprice his service.

But Day acknowledges that it will only be a matter of time before the access becomes a commodity, "or even a loss-leader business... At that point, we may or may not have a primary market share. But we do now, and frankly, now is a great time to have a market share."

Nevertheless, Day knows that Prodigy's real future is probably out there on the Web.

* * *

Prodigy was the first of the big three service providers to offer access to the World Wide Web, and in many ways, the company is now making itself over in the Web's image. Prodigy has adopted HTML, the language of the Web, as the language for its own internal systems. It's also starting up a "web hosting" business, allowing its content providers to have a home on the Web and one on Prodigy's service simultaneously. And Prodigy is partnering with firms such as JC Penney and L.L. Bean to make shopping on the Web a reality. Will consumers be too scared to type their credit card numbers into a Web screen? Don't worry: Prodigy has operators standing by on toll-free numbers, ready to take your order by phone.

Prodigy has been supported in part by advertisements from day one. As a result, the company has much less to lose by putting its proprietary pages directly on the World Wide Web. Indeed, it might even make more money by doing so. "The Prodigy you see in a year or 18 months may be very different than the Prodigy you see today," says Day. "And that's perfectly healthy."

TED LEONSIS, PRESIDENT OF AOL SERVICES: RUMORS OF THE ONLINE GIANTS DEMISE HAVE BEEN GREATLY EXAGGERATED

AOL is adopting a somewhat different strategy. "You have to understand that we are the largest Internet provider in the world," says Leonsis. "We have an integrated browser in the core service that really doesn't differentiate between the Web and AOL." For the 'net-savvy cybercitizen who has simply got to have their PC on the Internet, AOL has its Global Network Navigator service, which offers direct Internet access.

But Leonsis says that today's World Wide Web is not a market that AOL is interested in. "I believe that today the Web is an anti-market. No one is paying for direct-dial access. Most 'net surfing is done during the day, via companies," the so-called play-at-work crowd. "Everyone talks about millions and millions of people on the 'net. Well, they are coming from their companies and not paying for it. The browser software is free. The server software is free. (Accessing) the Web sites are free. Who is surcharging? You can probably count them on one hand. In fact, most Web sites can't even get people to register! Advertisers are building their own Web sites, bypassing the ISPs. So there is no money exchanging hands anywhere!"

Leonsis believes that AOL's future is in the AOL "brand name." He thinks that people will pay money to access information, chat rooms and forums that are located underneath that brand. "Value will be defined via a kind of integrated approach, as opposed to just launching people onto the Internet."

CompuServe, meanwhile, is playing all sides—content provider, access provider, and network provider—largely because the company is actually three businesses.

CompuServe Information Services is the best known of the three. CIS is the service used by millions of Americans for electronic mail, software libraries and special-interest discussion

groups, which CompuServe calls "forums." But CompuServe also has a Network Services division, which essentially leases out the CompuServe network to more than 750 corporate customers across the world. One of those customers is VISA International, which uses the CompuServe network for verifying credit-card transactions. The CompuServe network has more than 450 points of presence, making CompuServe a local phone call for *96* percent of the population in the United States. Its backbone is currently a collection of T1 lines running at 1.544 mbits/sec; they are in the process of being upgraded to T3s, which run more than 30 times faster.

The third member of the family is CompuServe Seattle, formerly known as SPRY, Inc., which CompuServe bought in 1995 for $102 million. Before its purchase, SPRY was in the running to become a major online service in its own right, thanks to the success of its "Internet In a Box." Now that it is firmly part of the CompuServe family, the organization is central to CompuServe's plans for making even more money off the Internet craze.

"The market is growing by leaps and bounds," says Tim Oren, vice-president and general manager of CompuServe's Internet Division. Oren says that the dramatic growth of home computers in recent years is responsible for last year's sudden boom in the Internet.

"There are two neat things going on," explains Oren. "One is that more folks are getting enabled. The other is that all of the hype about the Internet is pre-educating people. Five years ago, you had to sit people down and tell them, 'Here is what an online service is, and here is why you need to care.' These days, practically every television, radio and newspaper article about the Internet is a free advertisement for CompuServe's online services."

But is CompuServe really the Internet? Oren wants you to think so. Today most people who use CompuServe access it through a proprietary communications protocol using CompuServe's CIM (CompuServe Information Manager) application. The next version of CIM, says Oren, will be based on the Internet's own PPP protocol. Once a subscriber is connected to CompuServe, he or she will actually be on the Internet and able to run any Internet-based application, such as Internet Relay Chat, NetPhone, or CU-SEEME. Simply by changing a few programs on its central computers, CompuServe will suddenly become the nation's largest dial-up Internet service provider.

But don't expect bargain-basement prices from CompuServe anytime soon. "We're not trying to be an all-you-can-eat for $20 access provider," says Oren. "That's not where the growth of the market is. We want to be value leaders, not price leaders."

Oren insists that CompuServe's real value is its experience in managing online discussion forums, helping businesses tailor their services to the online market, and online shopping. "Go and crash IRC (Internet Relay Chat) some night, and look at the general quality of conversation, and then look at the (CompuServe) forums.

"I see CompuServe as something of a premium Internet access provider... both in cost and benefits. Have you tried to get into Yahoo! on a Friday afternoon? Or Edgar? I know I'm willing to pay a premium for a service that gets me what I want, when I want it," says Jim Cameron, a former NBC News director and network radio anchor who now runs CompuServe's JFORUM (Journalism Forum). "Say what you will about the Internet: There is still far more content, more quickly available on CompuServe."

Clearly, the nation's online services aren't dead, or at least not yet. But it's unlikely that they will remain in their present form for more than a few years.

People forget, but in the early days of electricity, Edison's electric companies did a lot more than simply sell the juice that was starting to power the new economy. They also provided the light bulbs. They wired up your home. And they taught you how to use it.

Within a few years, the online services will probably be little more than hosts on the Internet. Already, it's possible to connect to America Online using TCP/IP and your local internet service provider. For an increasing number of AOL's customers, using TCP/IP instead of AOL's dial-ups means faster service and no busy signals. It also makes the connection a lot cheaper for AOL, so expect to see AOL recommending TCP/IP access more and more.

Online service providers of the future might be based on Web technology, they might use HotJava, or they might even use their own proprietary interfaces. But they probably won't be running large banks of modems, or maintaining their own national networks—at least, not within the same division. And if they are smart, they'll offer services with a regional and local flavor as well.

AOL, and to a lesser extent CompuServe and Prodigy, is modeling its future on today's big media corporations. With high production values and brand awareness, the company believes that it can become as successful as a major television network. Is that the right recipe for success? AOL thinks so. But the decline of the country's three leading networks and the growth of medium-sized cable channels would seem to indicate otherwise.

When the Internet is everywhere, it will be possible for AOL to lose its customers as fast as it has gained them.

CONTRIBUTING EDITOR SIMSON GARFINKEL WRITES ABOUT THE INTERNET FROM HIS NETWORKED HOME ON MARTHA'S VINEYARD. HE RUNS A SMALL ISP IN HIS SPARE TIME.

A brief history of the online world

CompuServe came first. Back in 1969, CompuServe was a small-time sharing company. By day, businesses that couldn't afford their own mainframes used CompuServe's. At night, the company let hobbyists and engineers dial in and chew the extra cycles that were spinning on the machines. The online market didn't exist—few people had ever seen a computer, let alone had one in their own house! Indeed, most people who dialed into CompuServe's computers didn't use a computer at all: Instead, they used a teleprinter or a "glass TTY" and a slow modem.

As CompuServe expanded into new geographic markets, it built its own data network so that customers could use the mainframes without paying outlandish long-distance telephone bills. CompuServe could effectively offer its customers cheaper long-distance rates because it is possible for a single long-distance telephone line to be carry conversations between many users at the same time using a technique called packet switching—the same fundamental technology that drives the Internet. In 1980, H&R Block, the tax preparation firm, bought CompuServe. At the time, CompuServe was earning $20 million a year. Last April, CompuServe's earnings reached $150 million, with total revenues of $583 million. It was also the first year that H&R Block had earned more from computer services than from preparing tax returns.

- Simson Garfinkel