by MICHAEL O'BRIEN

"The 1995 Grant Round is now closed... TIIAP received more than 4,000 letters of intent!"
–TIIAP Home Page

"Direct public access to the Internet will be offered through those workstations on LUMMIS..."
–Los Angeles Public Library

"We have a Netcom account at home."
–Kathy Scott, LAPL Venice Branch librarian

Mr. Protocol Goes Public

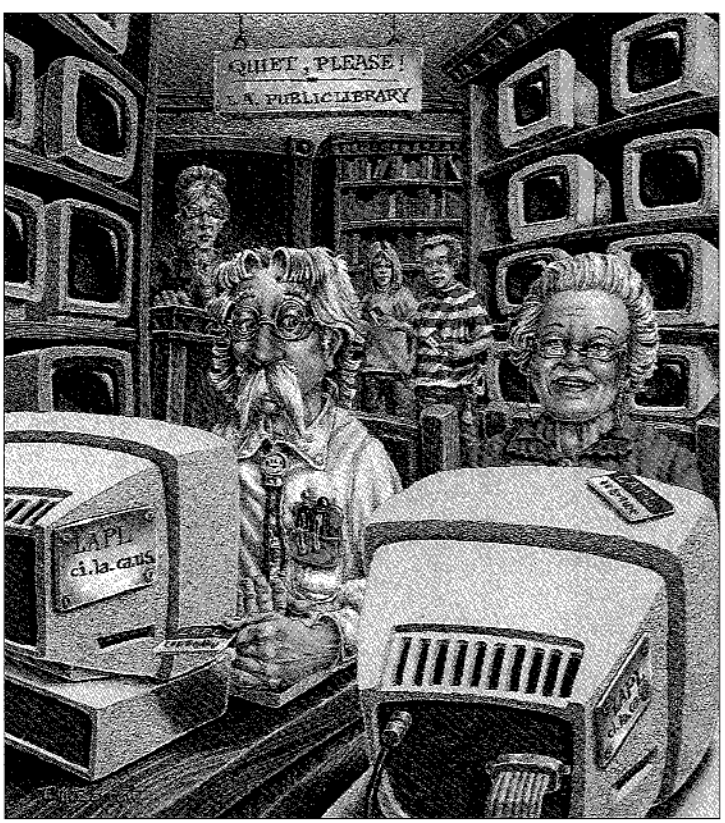
Q: *What's that you said? I couldn't quite hear you.*

A: SHHHH! We're in a library! Have a little respect. Although I will admit that things aren't as quiet as one might expect, what with the clacking of keys and all.

In fact we're here because Mr. Protocol heard an amazing rumor that the Internet was available at the neighborhood library. Until now, Mr. P.'s life has been quite circumscribed. Since he's never off the network, he's never seen in everyday life. Most folks don't believe he has one (and they're right).

The Net has been its own hermetically sealed world, impinging on ours only in a few very restricted environments. Typically, one sees the Net at the office and nowhere else. Certain adventurous citizens have brought it home with them by getting personal accounts at a local provider.

The rich panoply of life continues without the Internet in evidence, except in the rather breathless Sunday supplement stuff, and rumblings in the business section. The movie theater, the gas station, the bank, the library, the supermarket are all pretty much as they have been. Oh, to be sure, now you can use an ATM card at most of these places instead of a credit card or cash. Point-of-sale financial networks have never been healthier, but unless you're a merchant or a banker they're boring, boring, boring, because they only do one thing, and that's move money around.



Mind you, the phone company is in the back alley, pitching away, installing fiber in a frenzy, trying to beat out the cable companies. Its notion of the brave new world seems to be movies-on-demand, though– "video dial tone." No thanks. We've both seen the future and it's just a little more involving than that, thank you very much, and while Mr. Protocol can veg out with the best of them, there are limits. Mr. Protocol feels that while vegging out is a highly desirable activity, video dial tone sounds like an invitation to root rot. And as a decorated veteran of the Great Root Rot Wars of 1976 (a k a the UNIX V6 file system), our Mr. P. has had enough of that. So, the discovery that the Internet had come to the library sparked considerable interest.

The Internet has come to a few other places as well. In a few areas of the country, "on-line cafes" are opening up with some regularity. These establishments offer light food, coffee, tea, conversation and Internet terminals. The last item certainly sets them apart from the ordinary run of coffeehouses, but despite the apparent corporate goal of Starbucks to open at least one franchise on every block of every street in America, the fact is that coffeehouses are still rather rare in America as a

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whole. Libraries, though, are a real part of the Norman Rockwell picture.

In an institution as hidebound as the American library system, nothing happens without support at all levels, including the top. What could cause something that just a few years ago was a rank experiment to become almost overnight a resource to be bought and paid for at all levels of government?

Mr. Protocol is glad you asked.

It is apparent that the Internet has reached some sort of critical mass. The novelty has not worn off, but we are just beginning to see users who are both serious and unprofessional. This is not a contradiction. There have always been serious users of the Internet, and of the ARPANET before that. These users have been professionals in various fields, generally scientific researchers. But now, merchants are beginning to use the Net to provide virtual storefronts to a potential customer base. As yet, many of these ventures amount to little more than publicity gimmicks, but there are some, particularly in the computer arena, whose Net presence is a vital part of their business. Other types of users are just beginning to come out of the woodwork.

These users intend to provide information to consumers, who may be consumers of information, or they may consume products and services about which they garner information from the Net. But first, these folks must have access to the Net.

Despite the large number of personal computers in private hands, the demographics of the actual and potential users of the Net are narrow, at least at present. Many of the providers of information think this is a good thing, since the demographics represent a population affluent enough to get on the Net in the first place, which even yet is not as simple as the packaged access providers would have you believe. The current audience on the Net, then, is both affluent and motivated. The downside is that they are also intelligent and cantankerous, but then, life isn't perfect.

But there are also other people, with other motivations. The Internet was constructed with public funds, and there are those who believe that the Public with a capital P should continue to be involved. Certainly the Internet is one of the most powerful political tools ever constructed, with its possibilities for many-to-many communication.

The TIIAP Web pages, in sharp distinction to most governmental Web pages, read as if they had been written by real humans.

Public participation is a tricky thing, though. First, it must be made possible. Second, it must be organized. Third, it must be directed. Fourth, it must be empowered and fifth, it must be subject to checks and balances, just as with any other public forum.

Mr. Protocol invites your attention to two governmental involvements, one at high levels, and one at low. These two, he feels, provide two counterexamples to the old sarcastic phrase, "I'm from the government and I'm here to help you."

The first example is called TIIAP. This acronym is so unpronounceable that it could only have been coined at a high echelon of the Federal government, and such is indeed the case: It is the Telecommunications and Information Infrastructure Assistance Program, and it is the latest in a series of programs to assist the "have-nots."

Mr. Protocol is certain that you remember CSNET, the Computer Science Research Network. It was a case where exactness of acronym was sacrificed on the altar of euphony, and where exactness of method was sacrificed on the altar of achievement: They did whatever it took to get things working. The target audience of CSNET was small (and large) research and commercial outfits who had no access to the ARPANET (and later, the Internet), and CSNET provided that access. In fact it was the first "commercial" Internet provider, though it was run as a not-for-profit organization. Its members ranged from General Electric Labs to the University of Nevada at Las Vegas. The understanding was that research grants, at least those from the NSF, CSNET's initial sponsor, would be burdened with the costs of CSNET membership, and that such line items would be favorably received.

This was a clumsy method of funding, but it did work. TIIAP, which is run out of the National Telecommunications and Information Agency at the Department of Commerce, is much more direct. They get a pot of money from the U.S. Congress every year, and they give it away in the form of matching grants to local governments and not-for-profits to provide useful and interesting on-line programs. TIIAP has a very nice Web page, which is at `http://www.ntia.doc.gov/otiahome/tiiap/tiiap.html`.

The business of TIIAP is getting schools, libraries, hospitals, local governments and the sort on-line, so it should come as no surprise that TIIAP's Web pages have links to Web pages put up by the grantees. This is one of the more interesting list of links on the Net. The only thing these links have in common is that they wouldn't be there if it weren't for TIIAP.

Mostly, the available Web pages represent governmental organizations with programs to pass network access availability downward to local citizens. There's an Alaskan school district, and libraries and governmental bodies in Boulder, New Jersey, East Palo Alto and so forth. TIIAP Director Laura Breeden has made sure that there is a mix among all grantees, ranging from medical schools and universities to Indian tribes. It should also be noted that Ms. Breeden's rather amazing personal style is evidenced by the fact that the TIIAP Web pages, in sharp distinction to most governmental Web pages, read as if they had been written

by real humans. In fact, one can call up pictures of the people themselves, and, if they were permitted links to the sort of highly idiosyncratic personal Web pages one typically sees at other institutions, TIIAP's Web presence would be perfection.

Not all grantees put up Web pages. Some of these folks won't be on board for years. For example, there's a study being conducted out of the lieutenant governor's office of the U.S. Virgin Islands, to plan the integration of the islands via a series of hubs, and also to plan their connection to the world network. That will take some time.

All of these examples have people behind them who have something to gain and something to give by being on the Net but who have no income or charter to get on by themselves. Other governmental bodies, with more resources, are getting on-line without the necessity of TIIAP or similar assistance–or rather, through a patchwork involving a number of granting agencies plus local budgeting, rather than relying on anyone in particular.

Take the Los Angeles city government. Los Angeles is so large that the information planners were holding out for the domain `la.gov` or `lacity.gov`. They didn't get it. They had to make do with the domain `ci.la.ca.us`. In other words, they got put in the geographical domain system rather than the organizational one. They're still fighting that one.

There are some savvy people working for the city, as it turns out. The Web page, at `http://www.ci.la.ca.us`, is very well constructed. The first pages put up are those for services that most closely affect the consumer: the Department of Sanitation and the Department of Street Lighting. At this point Mr. P. is tempted to behave like the more objectionable type of oenophile: "The pages show evidence of careful cultivation and are of good aroma and strong body, but with a slightly woody dimension, and a weak finish. An older, more full-bodied Web page promises, if care is taken in the cultivation."

In other words, the pages have been constructed to offend no one, and to be as informative as possible, but feedback is needed. The notion of a FAQ, for example, would be helpful: "You guys put these huge stupid green and black containers in my yard and now I have no idea whether to put them out back, in front, in the street, or chop 'em up and use 'em for kiddy race cars. How'm I supposed to put them at the curb away from cars when all the cars are parked on my side of the street 'cause the other side's got street cleaning?"

At least they tell us where we can take our old motor oil. And they promise that Hizzonah will have an Internet mailbox soon. It's a good start–but they already have a city BBS with lots more stuff on it, which should be integrated with the Web pages.

Note that the city's Internet presence didn't grow out of nothing: They already had a BBS. Of course, only people who are BBS-savvy ever found it, just as only the Internet-savvy will ever find the city Web pages, or get any good out of them. How are ordinary people ever going to do that?

Enter the library system. TIIAP gives grants to libraries, but they're not the only one: Congress passed the Library Services and Construction Act, and much good has come from that.

Mr. Protocol is daily inundated by such a flood of information that a peculiar species of information deafness has resulted. He can no longer take pleasure solely in looking at the Big Picture. He has realized consciously what reporters have known for years: Stories are made approachable by the human element. Mr. Protocol prefers to investigate new things by focusing on individuals. In this case, he performed a feat no less than stupefying, at least for anyone who knows him: He actually left his home and traveled five entire blocks to interview a librarian at the Venice branch of the Los Angeles Public Library, Ms. Kathy Scott. Because Mr. Protocol is normally incapable of any intelligible communication with the uninitiated, he dragged this reporter along (i.e., I'm the only one who can put up with him).

It can safely be reported that Ms. Scott is a genuine human being, and the antithesis of the archetypal public servant. She is blond, 30ish and has the friendly, slightly weathered face generally found only in Southern California or among the more relentlessly athletic Swedes. She is also as sharp as a tack and dedicated to her work despite what must be a depressing series of governmental budget cutbacks.

The setting is perhaps even more important. The Venice branch library is a treasure, and like most treasures, is extremely difficult to live with on a day-to-day basis. It is small and was built in the 1920s. It has one enormous room, a ridiculously high ceiling, dark shelves and enormous windows. The circulation desk is spang in the middle of the room, not close to anything but the front door, and the reference librarian's desk is tucked off in a corner. At that end of the library Mr. Protocol struck pure gold.

There are four computers available for public use. Two of them are general-purpose stand-alone machines, where anyone may browse a CD-ROM, or use word-processing software. A third terminal ties into a commercial library database system via modem. And the fourth...is an Internet system. It runs gopher and a Web browser. It is available for use by anyone with a library card, for a maximum of one hour per day, a limit that is only enforced if there are others waiting to use it.

The entire project was funded more or less the way one might expect. Everyone had a thumb in the pie. The state library system got the ball rolling, and the LA City Public Library joined in, together with a large number of the branches. Each branch formed a citizen's committee to plan the introduction of the service into the local community.

What is surprising is that this worked at all. The citizens' committees knew the community all right, or at least a cross-section of it, but many of them had no idea what the Internet was. Ms. Scott herself was only knowledgeable about it because of her prior connections with the main branch in downtown Los Angeles, which led to her initial exposure. The result is a resource that sits in the corner of the library, seeing low-level, steady usage from the immediately surrounding community. Ms. Scott teaches one introductory Internet class each week, which is regularly attended by four or five people. Two or three people per day come in to use the system. Connection is via 14.4-Kb/s SLIP, which is about the low end of usability for Web access.

According to all the manuals on citizen participation in government, this program is a classic example of a success. Mr. Protocol believes that this program succeeded not because of its inception, but in spite of it. In fact the load was carried by people within the system who already knew what the Internet was and could do. An informal association of librarians support the program as a whole, calling on each other for assistance. Ms. Scott's own belief, and one with which Mr. Protocol heartily concurs, is that while the Web and gopherspace are valuable as reference material, the public's greatest need is for electronic mail access. Politically, this is more controversial, since some regard this in the same light as providing free long-distance telephone service to all comers at the circulation desk. These are knotty questions that will be solved only after long wrangling among the knowledgeable and the not-so-knowledgeable.

It should be noted that there are those in the Los Angeles Public Library system who have their heads screwed on very straight. LAPL has set up a server system called LUMMIS that has a gigantic file server and several large CD-ROM jukeboxes attached, with terminals all over the central branch. Access to this system soon will include full access to the Internet. And to close the loop, the plan is to turn the central library into a special-purpose Internet provider, with frame relay links to all of the branches. Mr. Protocol can hardly wait.

Mr. Protocol's emotions on seeing the Internet terminal with his own eyes would be difficult to describe. He has devoted his life to building this thing, but his own personal experience with it has continually reinforced the perception that it is a difficult thing to attain. Immense technical knowledge is still required to establish the sort of high-powered, full-featured Internet connection that he is accustomed to using. To suddenly see a public-access terminal, available in a library, at no greater cost than laying one's library card on the reference desk, resulted in a sort of epiphany that colored the remainder of his day. ⊷

Mike O'Brien has been noodling around the UNIX world for far too long a time. He knows he started out with UNIX Research Version 5 (not System V, he hastens to point out), but forgets the year. He thinks it was around 1975 or so.

He founded and ran the first nationwide UNIX Users Group Software Distribution Center. He worked at Rand during the glory days of the Rand editor and the MH mail system, helped build CSNET (first at Rand and later at BBN Labs Inc.) and is now at an aerospace research corporation.

Mr. Protocol refuses to divulge his qualifications and may, in fact, have none whatsoever. His email address is amp@cpg.com.