

THIS MONTH: 605 CHICAGO AREA BULLETIN BOARDS March 1993

BOARDWATCH

MAGAZINE

Guide to Online Information Services and Bulletin Boards

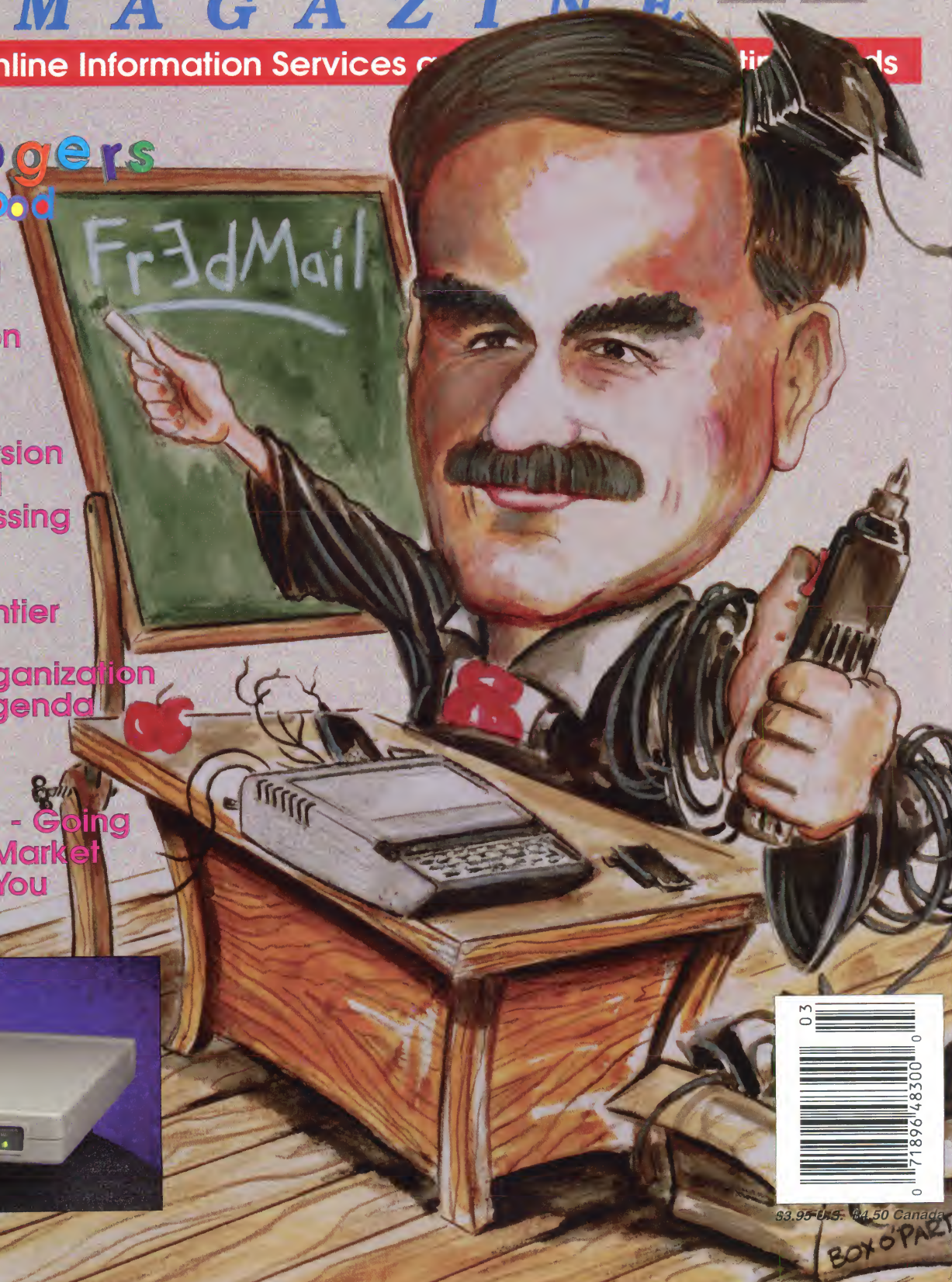
Mr. Rogers
Neighborhood

Al Rogers and
His FrEdMail
K-12 Education
BBS Network

New PKZIP Version
2.04 Released
- A Mixed Blessing

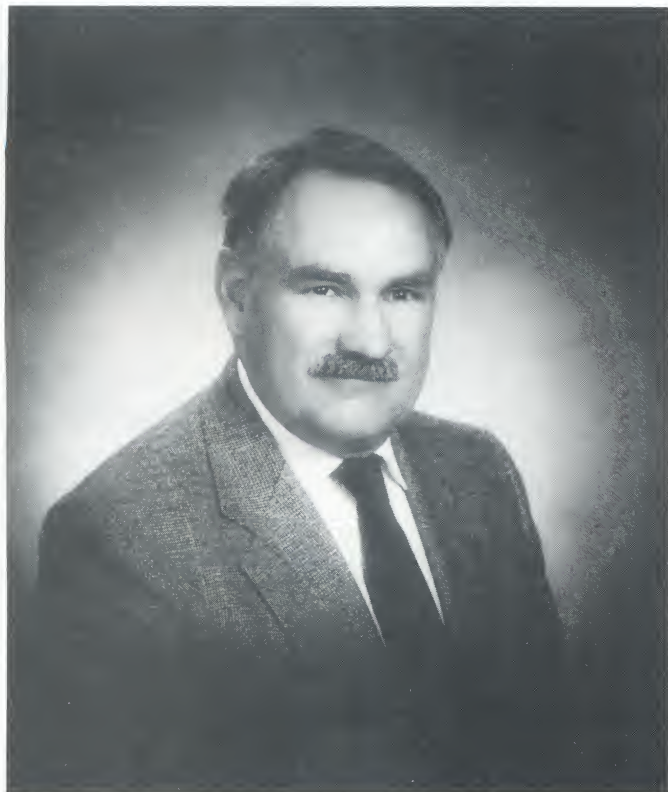
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FrEdMail Author Al Rogers

As an interesting side note, Kodak makes a premium grade of color film titled **EKTAR**. It is great for enlargements but it is available in a restricted number of film speeds. Apparently, the film exhibits less "exposure latitude" and this translates to smaller file sizes for the same picture resolution. But the Photo CD process will work with ANY 35 mm slide or print film. Only 35mm film is supported at this point. They expect to be able to handle the 4X5 format by this summer.

More interesting yet, Kodak is apparently working furiously on a largish Unix-based online information service they are tentatively titling the **Kodak Picture Exchange**. This online service will feature a fairly hefty connect time charge and some requirement to use a Kodak terminal program. But it is directed at stock photo houses. Some of these photo houses are warehousing MILLIONS of photographs using aging technology to keep track of what is what. Kodak would like to have them store images on this online service. Art directors, advertising designers, etc. could then dial the

system, and view the low resolution thumbnail images right online. Once they browse through a few million photos by modem and find the one they like, they will be able to order, pay for, and download the high res version from the system, or order transparencies/negatives/whatever from the stock photo house directly. If Kodak can position this as stock photo exchange central for the industry, and who better than Kodak could, it may well revolutionize the way people buy publication rights to photographs, and the way stock photo houses warehouse pictures. They are targeting a summer

93 launch date. Note too Unix and TCP/IP technology. The whole thing could eventually be available globally on the Internet.

And while the idea of viewing family photos on the television set may not catch on, the PC world is already moving toward CD-ROM as a standard storage medium. As more CD-ROM drives adopt Kodak Photo-CD compatibility, moving photographs from the 35 mm camera to the PC in very high quality scans is likely to become a lot easier.

EDUCATION IN THE MATRIX: THE FrEdMail NETWORK

by J. Scott Christianson
and Ava L. Fajen

The Information Infrastructure and Technology Act of 1992 called for an expansion of the United States com-

puter network in order to "improve education at all levels, from preschool to adult education." The frontier of using computer networks in education is already being pioneered by a network of BBSs called the **Free Education Mail (FrEdMail) network**.

Since its inception in 1986, the FrEdMail network has been developing virtual classrooms - places where students from around the world can meet electronically to share information and collaborate on learning projects.

FrEdMail was founded by Al Rogers, a former elementary school teacher and education technology consultant to the San Diego County Office of Education. Mr. Rogers is currently the Executive Director of the FrEdMail Foundation, a non-profit group that was created to manage FrEdMail after it grew so large that it was impossible for one part-time person to maintain.

Mr. Rogers describes FrEdMail as "an informal, grass-roots, telecommunications network that helps teachers and students exchange information freely and simply. With over 150 nodes, it lets teachers share experiences with student assignments, distribute teaching materials and curriculum ideas, promote the development of effective reading and writing skills, and obtain information about workshops, job opportunities, legislation affecting education, and new nodes of the growing network.

"Its primary function is to transmit student writing from one place to another, thereby opening up distant audiences for students. FrEdMail is more properly thought of as a writing tool, one which can be used effectively at any grade level and in any subject. The purpose, and emphasis behind FrEdMail is to provide real audiences and real purposes to motivate writing!"

A TEACHING TOOL

There are over 150 FrEdMail BBSs (in the United States, Australia, Puerto Rico, United States Virgin Islands, and Ireland). Last year, approximately 5000 teachers used this network to conduct classroom learning projects.

In a recent issue of the FrEdMail newsletter, teacher Dennis Cowick explained how he uses FrEdMail to compliment the CNN Newsroom program (a short news program that teachers can tape to show their students): "I have been using the daily broadcast of CNN Newsroom for several years now and have found it extremely beneficial to my 7th and 8th graders, especially when I have the daily lesson plans that are available on FrEdMail. I set my VCR to record the fifteen minute Newsroom when it comes on at 12:45 AM and then view it in the morning before class. One of my students calls a FrEdMail board at the beginning of the day and downloads the 4-6 pages of lesson plans, worksheets and handouts that go with the video segment for that day.

"One particular lesson involved a special feature on an episode of CNN Newsroom that showed students visiting their parents in prison. We used several of the suggested discussion topics from the lesson plan we downloaded for that day. But what really capped all this off was a writing assignment idea in the daily lesson plan.

"The writing assignment suggested that students write to their own parents and describe what they, as children, really wanted and needed from their parents. The resulting letters were so heartfelt and insightful that they were published in our year-end literary magazine."

In another project, called Experts Speak, a group of students assumes the persona of an historical figure. Other students on the network direct questions to the group, until they can identify the historically important person.

In the Acid Rain project, students collect rain and snow fall, measure the acidity of the precipitation, upload their data and compare it with the measurements of students in different areas of the country.

Students participating in the Commercially Speaking project record data about the television commercials that they watch. This data is then entered into a database that is transmitted through FrEdMail to other classes. After several classes have uploaded their databases,

students can learn about demographics by analyzing when certain commercials are broadcast in different regions of the world.

These are just a few examples of the hundreds, if not thousands, of learning projects that have been successfully completed through the FrEdMail network.

THE NETWORK

Although any computer can be used to dial into a FrEdMail BBS, all FrEdMail BBSs are Apple II computers. Although the Apple II computer lineage may seem primitive by today's standards, it is well suited to this education-oriented network for several reasons. First, almost every school in the nation has one or more Apple IIs; since school districts can use existing hardware, it isn't expensive to set up a FrEdMail BBS. A school that doesn't have a spare Apple II can purchase one cheaply. In addition, most sysops on FrEdMail are teachers, who are already familiar with the use of Apple IIs. With FrEdMail, the sophisticated BBS software makes up for the old hardware.

The network was named the Free Education Mail network because there are no charges for dialing up a local FrEdMail system or for sending netmail (although the BBSs pay an annual subscription fee, see below). The FrEdMail network is constructed along the lines of other BBS networks. The network is divided into regions and sub-regions; regional and sub-regional mail hubs coordinate the distribution of mail and echo coordinators oversee the distribution of network conferences.

INTERNET CONNECTIONS

The FrEdMail network is linked to the Internet through gateways between individual FrEdMail BBSs and UNIX computers at institutions of higher education. These UNIX computers are in turn connected to regional networks, which provide access to the Internet. The first network to establish a gateway with FrEdMail was the **California Education and Research Federation network** (CERFnet). CERFnet links over 300 of the leading research and educa-

tion centers in California at data transfer rates of up to 1.544 megabits-per-second (T1). The National Science Foundation (NSF) awarded a **\$226,000** grant for the development of a gateway between CERFnet and FrEdMail.

Stephen Wolff, Director of NSF's Division on Networking and Communications Research and Infrastructure says: "The NSF is committed to improving the performance of students in math and science, and CERFnet is serving as a conduit for education. The National Research and Education Network (NREN) is pushing the development of gigabit speeds for academia and industry and, at the same time, pulling all levels of education towards the inherent benefits of connectivity to the national infrastructure. The development of this gateway will facilitate a national network of academic computing hubs that act as local file servers to their regional K-12 FrEdMail sites, via existing facilities and transportation networks."

Sid Karin, Director of the San Diego Supercomputer Center (SDSC) also commented on the gateway between FrEdMail and CERFnet: "While the SDSC and CERFnet are quite correctly identified with the higher education and high technology communities, we are the perfect springboard for this initiative with FrEdMail. Classrooms across America should have access to the computational tools of the Information Age to stimulate the minds of American youth. The needs of educators, scientists and engineers have driven the development of this technology which is now available to K-12 teachers and students on an affordable basis."

The FrEdmail Foundation estimates that there may be 50,000 teachers on the Internet. By uniting the Internet community of teachers with the K-12 teachers on FrEdMail, a FrEdMail-Internet link allows both groups of teachers to share resources and collaborate on projects. Besides CERFnet, several other networks and computing sites are now serving as conduits for mail between FrEdMail and the Internet.

HOW THE GATEWAY WORKS

A FrEdMail-Internet connection works by using college and university UNIX computers as mail servers for local FrEdMail BBSs. Instead of maintaining accounts on the UNIX computer for every user on the FrEdMail BBS, all the mail for people on the BBS is stored in one account on the UNIX computer. Once a day, the FrEdMail BBS dials up the UNIX computer, receives a mail packet from the UNIX system and sends an outgoing mail packet to the UNIX computer. The FrEdMail BBS software then sorts the mail packet it received and distributes the mail to individual user accounts. The UNIX computer extracts mail from the packet it received from the FrEdMail BBS and sends the messages out through the Internet.

To setup a UNIX-FrEdMail gateway, the UNIX-FrEdMail Gateway software must be installed on the UNIX computer (the BBS requires no additional software). The UNIX software consists of two files: **freduucp.tar.Z** and **fredux.tar.Z** and is available via anonymous FTP from **nic.cerf.net** (in the **fredmail** directory). These files are copyrighted by Gregg D. Brekke (**greggb@pro-fred.cerf.fred.org**) and the FrEdMail Foundation. There is a **\$250** licensing fee for the software, which helps cover costs of technical assistance. For more information on the UNIX gateway software send an email message to: **arogers@bonita.cerf.fred.org**.

SCHLnet

The FrEdMail Foundation has recently initiated several moderated newsgroups that are distributed through the Internet, FrEdMail, UUCP and other networks. These newsgroups (seven so far) are collectively referred to as SCHLnet and are distributed together as a "boxed set" of newsgroups. SCHLnet was created to distribute "ideas, resources, opportunities, and information of specific relevance to teachers and their students, without the extraneous and sometimes offensive distractions posed by Usenet newsgroups."

Because the conferences are moderated, the foundation charges a fee for receiving SCHLnet. The current fee structure

is based on the number of teachers and adult users that will have access to the SCHLnet newsgroups: **\$25** per year for 1-4 people, **\$250** per year for 4-300 people, **\$450** per year for 300-700 people and **\$750** per year for 700-1500 people. The FrEdMail Foundation will give free one-month trial subscriptions to those who are interested in receiving SCHLnet. For more information about SCHLnet contact: **fred@acme.fred.org**.

SETTING UP A FREDMAIL SYSTEM

All FrEdMail BBSs must use the FrEdmail BBS software produced by the FrEdMail Foundation. The latest version (1.3) costs **\$149** and runs on **Apple IIe**, **Apple IIGs**, and **Apple IIplus** computers (or a Macintosh LC with an Apple IIe emulation card). It will not work on an **Apple IIc** computer because of a problem with the IIc's serial port.

Each BBS on the FrEdMail network pays an annual consortium subscription fee of **\$150** to the FrEdMail Foundation for network maintenance, technical support and software updates.

The FrEdMail Foundation has designed their BBS software to be easy to use. Most of the sysops are classroom teachers, many of whom have no special technical skills nor the time to learn a complicated BBS program. Like several other BBS programs, the FrEdMail BBS software supports calls from people who use a Telecommunications Device for the Deaf (TDD) to communicate. (TDDs operate at 110 and 300 baud.)

In addition to the FrEdMail BBS software, the FrEdMail Foundation sells several good teaching materials. The foundation's book, *Telesensations: The Educators' Handbook to Telecomputing* (\$34.00), is an excellent resource that contains over 100 telecomputing activities for students and lots of helpful technical information. The foundation also offers a prepackaged teacher training workshop called *"T 'n T: Telecomputing and Teachers"* (\$249). This package includes: syllabi, overheads, 150 pages of handouts, three video tapes, and a FrEdMail simulation program. (The simulation program is available separately for **\$25**.)

The foundation also publishes a quarterly FrEdMail newsletter (\$10 per year).

We asked Al Rogers what the long term goals for the FrEdMail Network are. He says, "Long range, the Apple II stuff will disappear. However, the FrEdMail content, in the form of Usenet style newsgroups, will be our mainstay. We'll get out of the technical support stuff and focus on what we do best: curriculum and instructional content and support."

FrEdMail's adventure in computer-mediated education has blazed a trail for the future of educational networks. Global virtual classrooms can expand the walls of the traditional classroom and provide students with a uniquely dynamic learning environment.

To order the FrEdMail BBS software or more information contact: FrEdMail Foundation, P.O. Box 243, Bonita CA 91908; or at **619-475-4852** (voice); or at **arogers@bonita.cerf.fred.org**.

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MACINTOSH BBS NEWS

by Bill Gram-Reefer

WITHOUT A CLUE

You don't need to be Sherlock Holmes or a Greek interpreter to figure out that the ponderous fast-changing world of telecommunications services is about to mutate into a totally new animal. And it will take more than a scandal in Bohemia