PROPOSAL   FOR   A

S.F.   BAY   AREA

COMPUTERIZED   PUBLIC

INFORMATION   EXCHANGE

SYSTEM

or

COMMUNITY   MEMORY
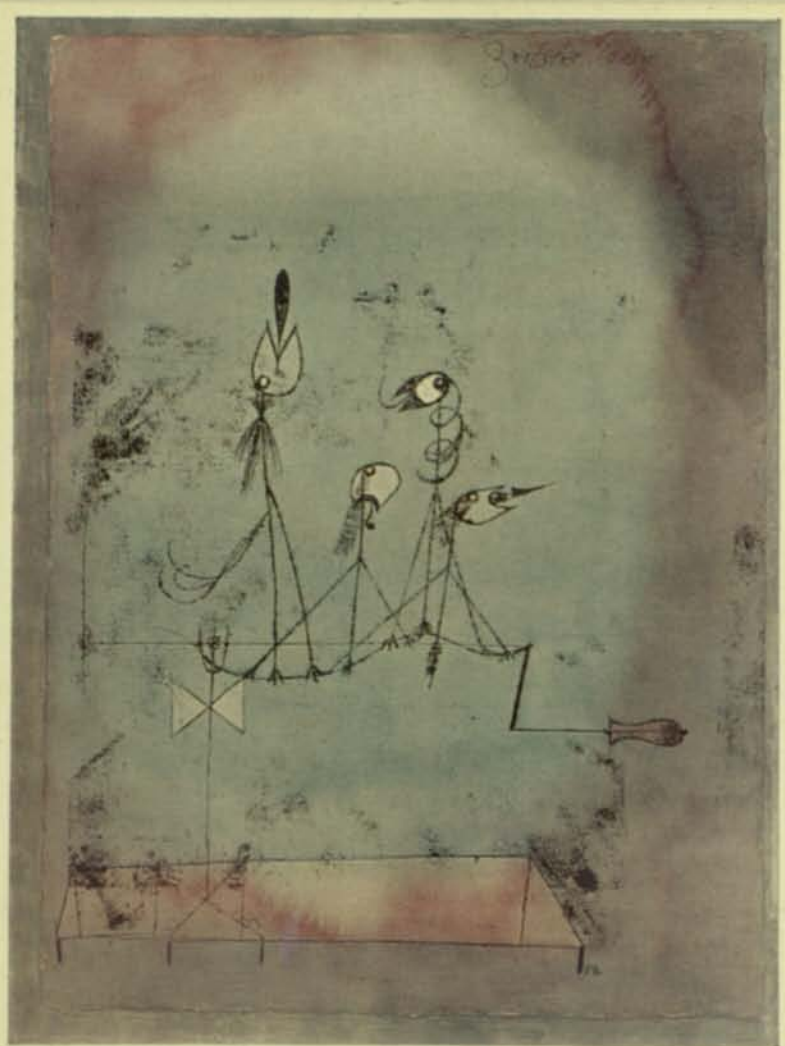
COMMUNITY MEMORY IS

A communication system which allows people to make contact with each other on the basis of mutually expressed interests, without having to cede judgment to third parties.

It is effected by means of a networked information retrieval system having access points available to members of the community for information entry and search. The system is configured to encourage the exchange of "directory" type information of mutual advantage to the users: whom to contact to arrange exchanges of goods, services, skills or art.

The system is complementary to the existing telephone, postal, and transportation systems, providing a user-updated reference function. The system is designed in a modular fashion with a high degree of decentralization, allowing for local control and management of its operations. At all levels the design minimizes the interposition of technical experts and maximizes the participation of citizens.

Twittering Machine - Paul Klee

Doc Benway wanders into the Whole Earth store to check out what's happening in Community Memory. A typical sequence would look something like this (what Benway types is underlined). There is a ">" symbol at the left side of the CRT screen, indicating the machine is waiting for the next user to give it some command. He proceeds to type:

>FIND TAXI

and presses the green RETURN key.

1 ITEMS FOUND

The machine always responds to a FIND command by giving the number of items found.

>PRINT

and again presses the green button. All commands are ended this way.

#1:

```
TAXI UNLIMITED   IS A CO-OPERATIVE TAXICAB AND ANSWERING SERVICE,
RUN AND MANAGED BY ITS WORKERS. TRIES TO KEEP RATES AS LOW AS
POSSIBLE , HELPS PEOPLE IN EMERGENCIES, AND OFFERS EXTRA SERVICE
FOR THE SICK AND DISABLED.
1908 BERKELEY WAY, BERKELEY 94703, TH1-2345
```

>FIND FREE CLINIC

More than one keyword may be used after a FIND command, with the understanding that the items found will each have all the keywords listed – that is, a space between keywords is equivalent to an AND.

6 ITEMS FOUND

>AND BERKELEY

The AND command narrows down the list of items with FREE and CLINIC as keywords to those that also have BERKELEY as a keyword.

2 ITEMS FOUND

>BRIEF

This command causes the first lines only of the items to be printed out.

```
#1:  GEORGE JACKSON PEOPLE'S FREE MEDICAL RESEARCH HEALTH CLINIC
#2:  FREE CLINIC (BERKELEY)    548-2570
```

>FIND BAGELS

5 ITEMS FOUND

>BRIEF

```
#1:  WHERE CAN I GET DECENT BAGELS IN THE BAY AREA (BERKELEY!)?
#2:    THERE IS A STORE CALLED "BAGELS"  ABOVE KEY ROUT ST. ON
#3:  THE DANISH BAKERY AT UNIVERSITY AND SHATTUCK IN BERKELEY
#4:  IF YOU CALL MICHAEL AT 845     AN EX-BAGEL BAKER CAN TEACH
#5:  YOU CAN GET FRESH BAGELS AT THE HOUSE OF BAGELS, WAY OUT ON
```

```
>FIND ENERGY CRISIS

6 ITEMS FOUND

>BRIEF

#1:  ***** TEG'S 1994 *****        ---> SOME CONCEPTS
#2:  I AM LOOKING FOR INFORMATION ABOUT METHANOL (METHYL ALCOHOL)
#3:  RESTARTING YOUR CAR'S ENGINE BURNS LESS GASOLINE THAN ONE
#4:  <ENERGY PRIMER> -- A BOOK BEING PREPARED BY PORTOLA INSTITUTE
#5:  ANYONE WANTING TO DEVELOP PUBLIC-ACCESS INFORMATION SYSTEMS,
#6:       GOT TO, GOT TO

>PRINT 6

#6:

        GOT TO, GOT TO
        GOT TO, GOT TO,
        GOT TO SCRAPE THAT ENERGY CRISIS
        RIGHT OFF YER SHOES . . . . .
              (W/THANX TO MICK 'N KEITH)


>FIND DOCTOR BENWAY

3 ITEMS FOUND

>PRINT 2

#2:

        ***** IEF XQPRSTQXL SYSPRINT OFFSET INTERRUPT *****
APPLIESTO: ALL BOOGIES, BEANERS, BOLOS & BOZOS ......

        DOC BENWAY HERE .......... NURSE, SLIP ME ANOTHER AMPULE
OF LAUDANUM .......... RECOLLECT ONCE ME AND CLEM CLONE WAS CHEWIN
YOHIMBE BARK OUT BACK OF JODY'S ALL-NIGHT PET SHOP .......

              NOT A FINER MAN IN THIS WHOLE ZONE
              THAN OL' CLEM 'N JODY CLONE .....

        ****WHERE WAS WE, YEAH ---- USE AUTHORIZED DATA BASE ACCESS
PROTOCOLS ONLY ..... SENSUOUS KEYSTROKES FORBIDDEN ..... DO NOT
STRUM THAT 33 LIKE A HAWAIIAN STEEL GUITAR ..... GRAND CONCLAVE
OF THE PARTIES OF INTERZONE: CHECK YOUR BOX FOR DETAILS.....
PERSONAL ATTENDANCE REQUIRED; SEND NO REPLICA.  BENWAY OUT.
TLALCLATLAN ......
```
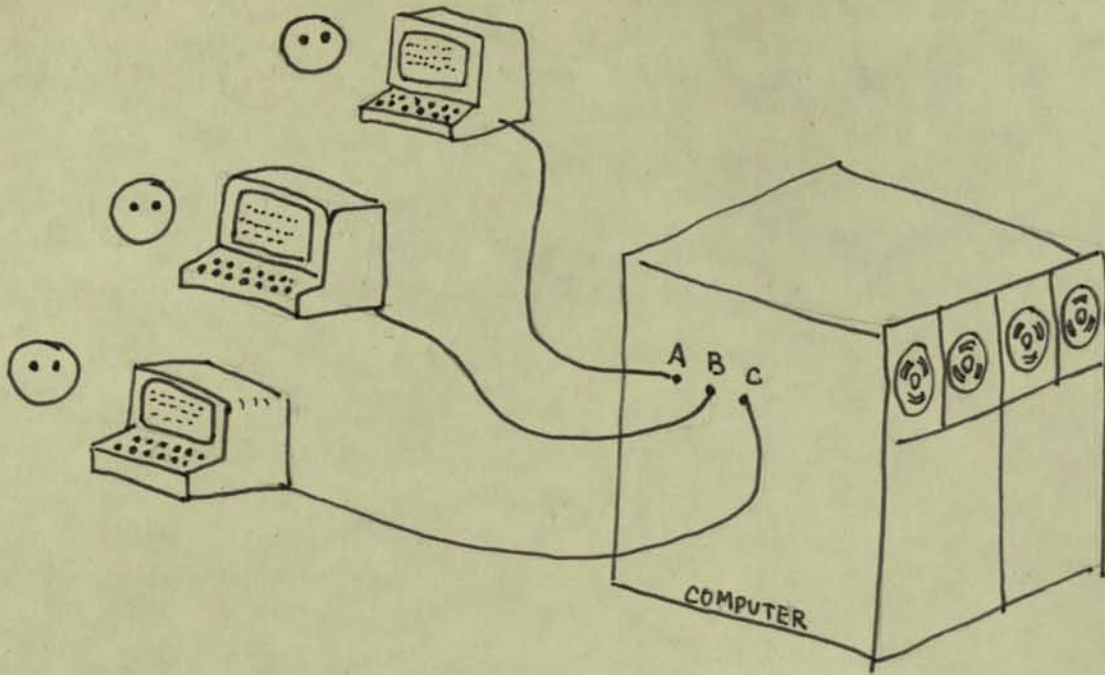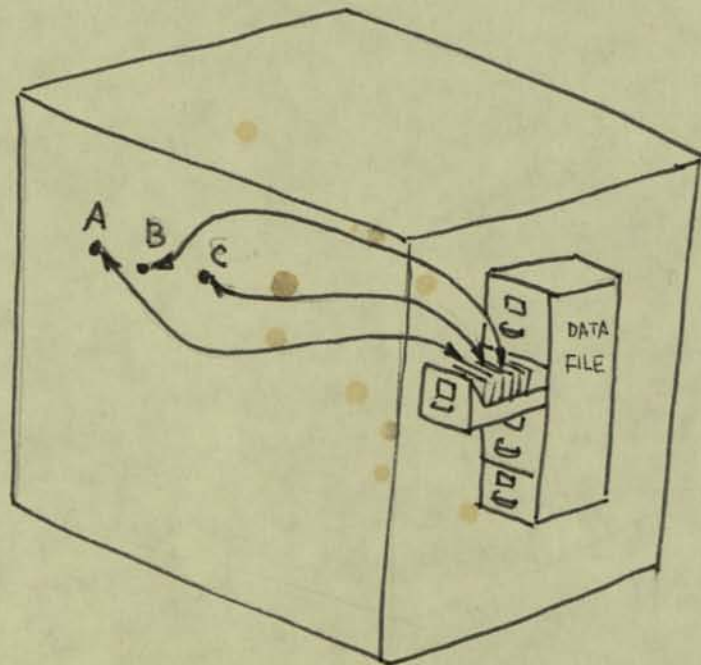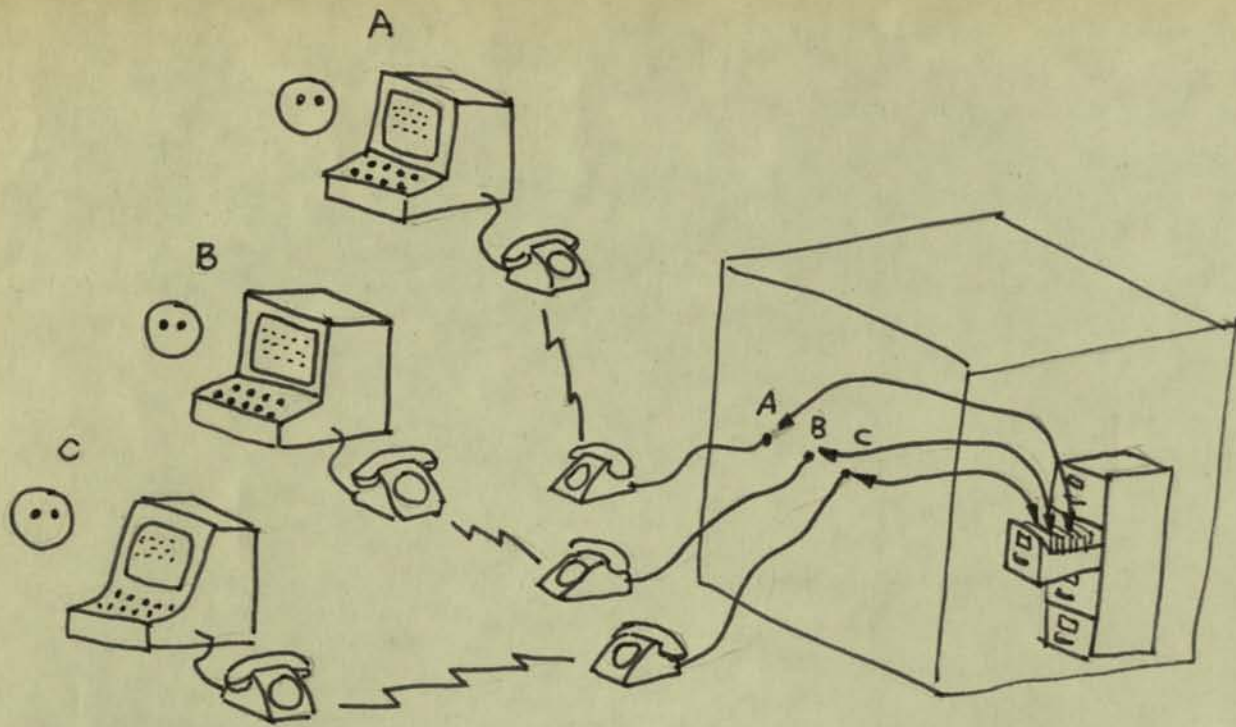
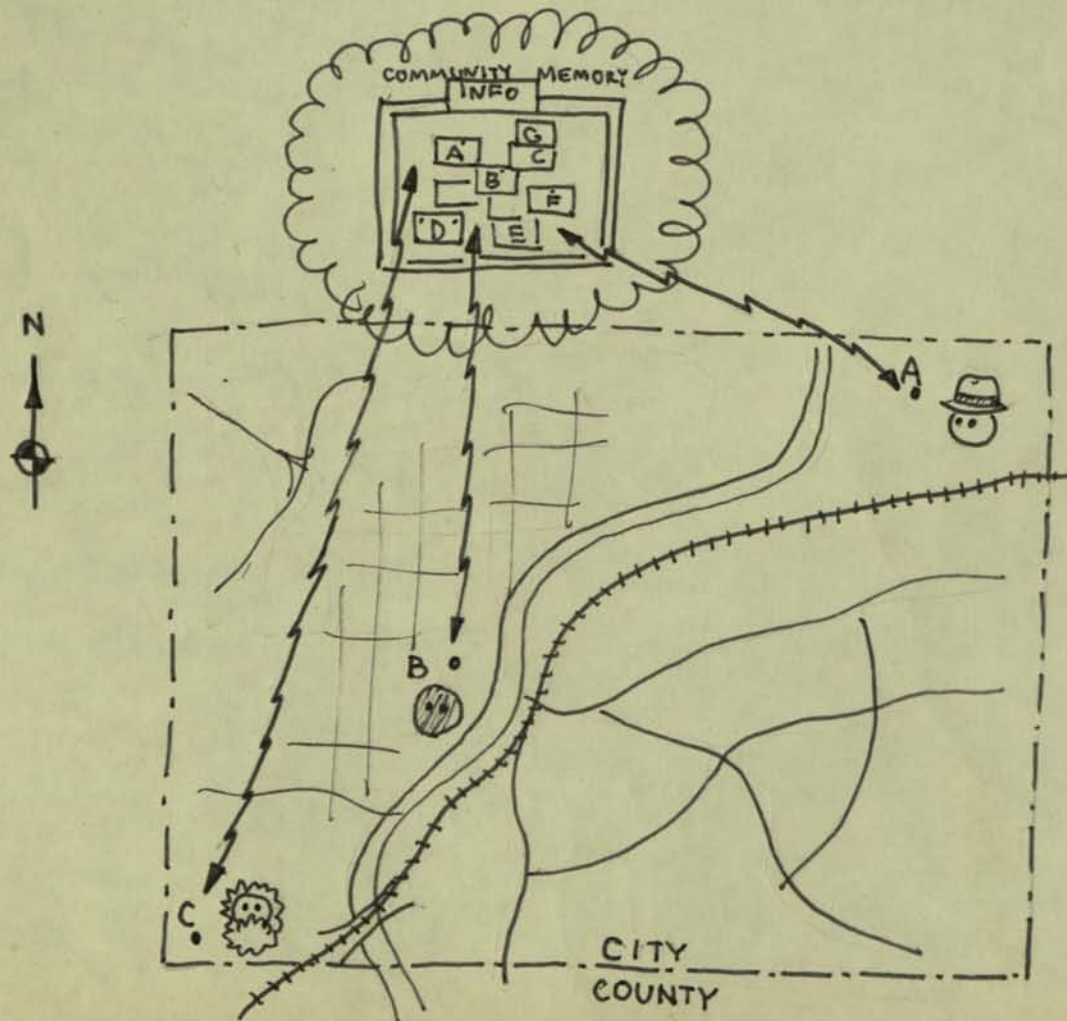1. SEVERAL PEOPLE CAN USE THE SAME COMPUTER AT THE SAME TIME

2. EACH USER CAN LEAVE DATA FILES WHICH THE OTHERS CAN EXAMINE.

Placed in already high traffic areas for convenient community access...

3. THE USERS CAN CONNECT TO THE COMPUTER BY TELEPHONE

4. IN THIS WAY PEOPLE THROUGHOUT A COMMUNITY CAN EXCHANGE
   INFORMATION FREELY

COMMUNITY MEMORY WAS

A trial system with up to four terminals was operated for fourteen months in the San Francisco area. The major point of useage was in Berkeley, where a terminal was placed in a store. In San Francisco a terminal was placed in a library branch for six months.

People had to use the terminal themselves, with no operator. Information items could be entered and classified using whatever keywords struck the user's fancy. Items would expire after a user-specified time.

From the beginning the system was used with more imagination and invention than the project staff had expected. Along with the expected notices of items for sale and rides there appeared learning exchange proposals, recipes and "public record" information, and even poetry and "typewriter graphics".

Users would learn how the system operated by watching others, then would instruct newcomers after a few minutes' experience. The vast majority of users did not resent the intrusion of a computer into their lives, rather, they expressed delight that such a powerful tool was at last available for their own use.

The system operation was discontinued after the efficacy of the concept had been determined. Successive development effort will concentrate on the efficiency of the system.

Computer For Plain Folks

By Tim Findley

The computer terminal at the Whole Earth Access Co. in Berkeley purrs quietly on its roost of empty crates and boxes, looking rather out of place in this shop devoted to the harmony of life.

Computers make many people nervous. Folks think of them as sinister cybernuts manipulated by impersonal humans and perhaps plotting conspiracies themselves somewhere b a c k in the deeper r e c e s s e s of their diodes and magnetic discs.

But this terminal at the Whole Earth Access Co. is linked t o perhaps the world's friendliest computer across the Bay in an old, butterscotch-colored w a r e-house at 1360 Howard street in San Francisco.

In an instant, it can tell you where to buy bagels in the Bay Area, or how to get a ride to Portland, or where to find a job or a school, or it can even spin out the only complete collection of Doc Benway's marvelous inter-galactic boogie bulletins.

And it's free.

The people who operate the computer are not at all like the introverted techno-crats one imagines. Instead they are a collective of ten gregarious men and women who earn just about enough money to afford new patches on their blue jeans.

They call themselves Re-source One, and their crea-tion represents a break-through for people who have become accustomed to thinking that technology is out to get them.

A young man with a frizzy helmet of hair strode up to the terminal at Whole Earth Access Co. and typed his simple plea on the terminal console keyboard:

"Help."

With eager dispatch, the terminal, which resembles a small television set with a keyboard, began explaining its own operation on the screen.

"People are a little wary of it at first," says Steve Robinson, 31, a spokesman for Resource One, "but that's only until they find out that a computer can work for them too."

Soon, the Bay Area will have six such terminals — three in stores in Berkeley and three in neighborhood li-braries in San Francisco.

A couple of years ago in the computer science de-partment at the University of California, two promising technologists, P a m Hardt and Chris Maise, decided that their skills didn't neces-sarily doom them to jobs with big business or govern-ment.

The two joined a gradually growing collective of people living and working together in the aging San Francisco warehouse they had painted and called Project One.

All Maise and Miss Hardt needed then was a free com-puter.

To a lot of people, that might have been a formida-ble obstacle. But not to Miss Hardt. She simply went to the Yellow Pages in the phone book.

As unlikely as it sounds, she worked her way through to the "T's" until she found Transamerica Corp., which although it did not have a computer t o donate, did have three out-of-date Scien-tific Data Systems 940 model computers it agreed to loan Resource One.

Robinson, a graduate of Stanford business school and former business manager of Ramparts magazine, joined the group in August, 1971, and with the help of grants from eight separate founda-tions began putting together a time-sharing computer op-eration.

The aspect of it that can be seen in such shops as Whole Earth Access Co. is called Community Memory and it functions like a cross between an electronic bulle-tin board and a hip encyclo-pedia.

People can type in mes-sages ranging from babysit-ting offers to political pro-nouncements, and in t u r n people can ask the comput-er for information using "k e y words" that range from "alternative energy" to "zebras."

Resource O n e chooses carefully a m o n g requests for new programs on the computers.

"It's really just a question to us of whether . . . it would be at all interesting," explained Resource O n e mathematician a n d pro-grammer Efrem Liphin, 27. "We discuss it and vote on it. If it would be really use-ful to people, with a capital P, we'd probably be inter-ested."

The Community Memory terminals are leased to the store or library at a fee ad-justed to what the place can afford.

"We'd like people to learn to use the technology," Rob-inson said. "It's really just a means o f communication and learning and we think people should be able to use it as much as businesses and governments."

It can also be fun.

Doc Benway, for example, is a young East Bay man who is perhaps the leading computer "kook" in these p a r t s — "kook" being a friendly term to define a few people like Benway who de-light in putting on the com-puter such wondrous fanta-sies a s Benway's long-running "galactic bulletins."

He very nearly went into a stellar tailspin when Re-source One moved a termi-nal out of Leopold's record shop in Berkeley last month.

Doc Benway's last entry (put on the computer by Re-source One people who re-ceived his post card) is a plaintive cry.

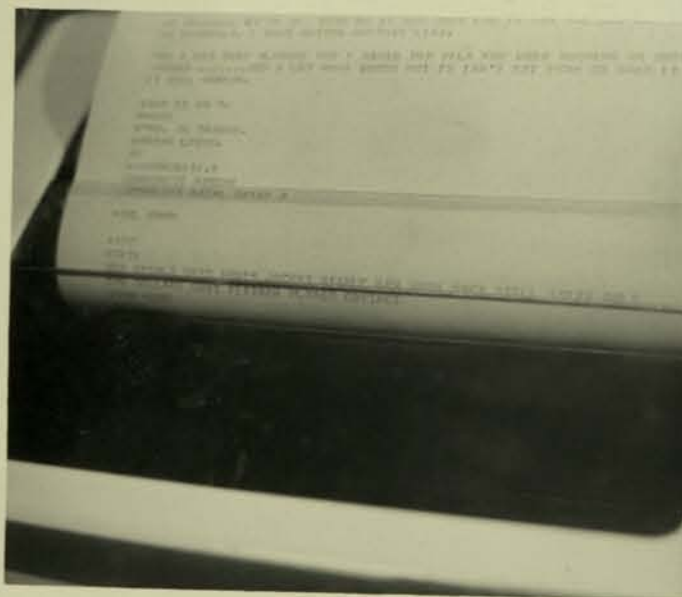"THACTATLAN BOOGIE BULLETIN," it began.

"Went down to the termi-nal./To play some software trips./Aw fell by Leopolds./ To get myself a fix,/If you don't bring back that 33 (the terminal designation), I'm gonna jump in the river Styx."

The tragedy has a happy ending. The Chronicle is as-sured that Doc Benway has found the new terminal at Whole Earth Access Co. and has thus been saved from a fate worse than transistor failure.

'We'd like people to learn to use the technology'

THEY FOUND THE ELECTRIC WONDER OF THE UNDERGROUND IN HIS SECRET BASEMENT WORKSHOP.

SUBMARINES??? LET'S TAKE A LOOK! I'LL ZAP INTO THE WORLDWIDE COMPUTER SALVAGE HOOKUP AND CHECK..... HOLD ON...

FIND RABBIT

1 ITEM FOUND

PRINT

Terminal at Leopold's Records in Berkeley

HOW TO FIND it

1. To find a chunk of information, type "FIND" followed by a word that describes what you want (it's called a keyword)

i.e. **FIND RABBIT** ●

2. the machine will tell you how many items it found....

1 ITEM FOUND
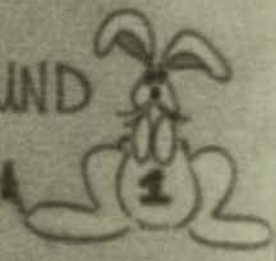
3. To see what they are, type "PRINT" i.e. then press the GREEN button.

PRINT ●

RABBITS 1 MALE 1 FEMALE
FOR SALE CALL 823-9400

if you make a mistake, press the RED button + start over

RESOURCE ONE
TECHNOLOGY FOR THE PEOPLE
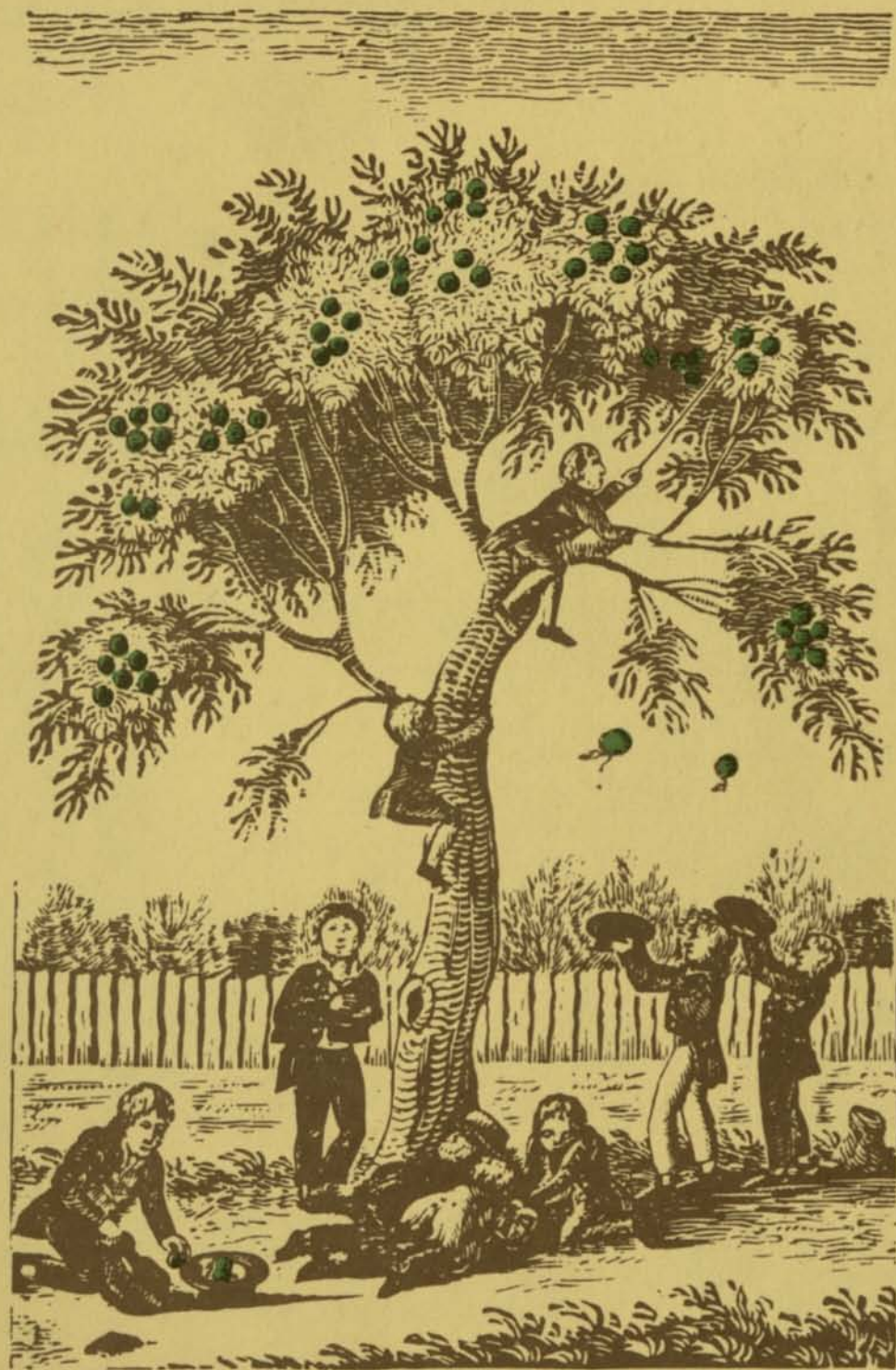
···A NON·PROFIT COMMUNITY GROUP
SHARING INFORMATION AND SKILLS···

RESOURCE ONE

is a non-profit community group, engaged
in bringing technology to the people.

We help answer questions like these:

HOW do you, as a researcher,

- organize your files to find information quickly?

- find out if other researchers have relevant information to share?

HOW do you, as a clinic worker,

- pinpoint the health problems of your community?

- analyze the effectiveness of your services?

HOW do you, as an ordinary person, find out

- who makes decisions affecting your community?

- how different social service agencies deal with specific problems?

- who in your community will trade something you need
for your old electric guitar?
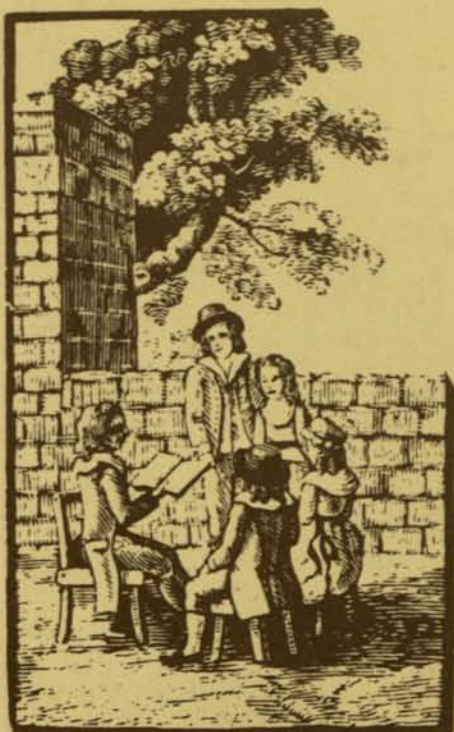
RESOURCE·ONE has a large donated time-
sharing computer. We got it and other tools together
to help people who have never before had a chance
to use sophisticated technology.

In the right hands, technology *CAN* be used
for the benefit of people. By promoting the sharing
of resources and useful information among people
with common interests, computers can help build
stronger communities.

COMMUNICATIONS TOOLS

RESOURCE · ONE'S primary tool is our XDS-940 timesharing computer system — a big, fast machine capable of communicating with up to 24 users at once, either directly or via data terminals connected by telephone. (A data terminal is used like a typewriter — what you type is transmitted to the computer, and the response appears in front of you.)

Also attached to the computer are a high-speed line printer, a magnetic disc unit (for storing up to 50 million characters of information), and two magnetic tape drives for convenient permanent storage.

We also have videotape equipment for educational use. And in our electronics shop, we are designing and building low-cost communications tools for community use.

AN INVITATION

If your project involves substantial information handling,
and is aimed at building stronger communities, please come
talk to us about how Resource One can contribute.

We are located on the first floor of ONE, the warehouse
community in the South-of-Market district. Write or call:

RESOURCE ONE
1380 Howard Street
San Francisco CA 94103

Telephone: (415) 864-8663

Resource One Capabilities

Ever since Resource One's computer was installed in the summer of 1972, we have been developing a wide range of services that might be useful to other grassroots community groups. Our capabilities at present include the following:

Community Memory: An on-the-street public information service available to anyone who wants to use it. There are terminals installed or planned for six locations in San Francisco and Berkeley, and more will follow. The idea is to enable people to communicate their needs and skills to each other, and to help them gain access to any kind of information that might be relevant to their daily lives, via an "electronic bulletin board."

Research Data Information Retrieval: Several Bay Area groups are currently using our information retrieval program to enter research data on where to find jobs with "alternative" organizations, resource sharing, and who the people are who make decisions affecting local communities. All this information will be made available through Community Memory, as will any future research projects, such as methods of ecological living in urban or rural communities, alternative organizational techniques for production-oriented communities, land trusts, credit unions, etc.

Urban Data Base: A large base of information collected from magnetic tapes obtained from the Registrar of Voters, the Census Bureau, and the County Assessor, all of which can be analyzed to show patterns of property ownership, economic domination of selected communities by small elites, voting patterns, and other factors of interest to community groups.

Legal/Medical Statistics: The Resource One computer is being used by Neighborhood Legal Assistance and by a medical clinic, to produce meaningful statistics regarding services provided clients. The same program can be used for membership accounting, billing and other applications.

Education: We have many materials concerning the role of computers and electronics in changing society. We have offered courses to community people in programming languages, computers and society, bookkeeping and tax returns, and we will arrange courses on demand. There is also a "learning exchange" data base connected to Community Memory which is intended to serve as the basis for a functioning community free school.

Social Service Referral Directory: The SSRD is a compilation of the services, hours, qualifications, fees and means of access for several hundred San Francisco service groups and agencies. It is updated every month, and data is stored on the computer for maximum timeliness. The SSRD is offered on a subscription basis only.

Accounting: The San Francisco Foundation has provided funds to set up an accounting program to keep books for nonprofit groups. Capabilities of the system include cash receipts and disbursements, journal entries, other journals, and reports in virtually any format needed. The program is intended to help people learn about bookkeeping and computers at the same time as it saves time spent on clerical tasks.

Reports and Typesetting: Programs exist to transform free-form input into variably-formatted forms for reports and printed articles, directories, indexes, etc. Output can be obtained very cheaply from the line printer or an upper/lower case terminal, or at a reasonable cost from a phototypesetter.

Mailing Lists: We have a user-oriented mailing list program to handle the needs of groups with other ideas of utilizing the Resource One computer system. Maximum capacity of the mailing list program is about 20,000 names.

Consulting: We have provided consultants to several local organizations, to help them analyze their information flows and see how they could be improved. We hope to develop this service into a "job bank" for skilled people who want to volunteer their services to grassroots organizations for little or no compensation

Future Developments

We hope, in the very near future, to get into (or at least facilitate) the development of alternative systems of distribution (all kinds of goods and services), information flow (such as ecology, alternative uses of energy and technology, etc.), and economic organization.

In all these things, most of the energy must come from outside Resource One, since we are busy maintaining the computer and other tools a good part of the time. We hope eventually to become a "community computer utility" that is used by a broad spectrum of grassroots organizations, and supported totally by the energies and funds of those groups.

Resource One
1380 Howard St.
San Francisco CA 94103
864-8663

community memory

COMMUNITY MEMORY is a people to people information exchange using a computer, and computer terminals to store and retreive messages. Like a bulletin board, you can contribute any message you want to share with the community. It may be about a car for sale, a class in pottery, a poem, an opinion, ANYTHING. You can also look for something you need or are interested in, a class, a space, a ride, a resource, a joke. The more messages people put in, the more effective a communication system it will be.

You can use this form to prepare a message to put into COMMUNITY MEMORY. Please come in and type it on our terminal at 1877 west 4th ave. or at the Learning Exchange (1320 Commercial) or drop off this form and we'll enter it for you.

YOUR MESSAGE- please make your first line act as a headline (maximum 20 typed lines per message) and remember to include contacts, name, number, address, if applicable.

KEYWORDS- These are words that are used like an index to describe your message so that others can find it in the memory. For example, if your message is about a food coop you could enter it under FOOD COOP EATING GROCERIES MEAT VEGETABLES etc. The more keywords you use the easier it is for others to find your message. (correct spelling is important)

NUMBER OF DAYS- how many days you want your message stored in the memory (mamium 90)

Even if you have nothing specific fo add, please come in and see what we have to offer.

community computer services
1877 W. 4th., Vancouver, B.C.
telephone (604)733-8310

Community Memory Storefront in Vancouver, British Columbia

GUIDE TO USING THE COMMUNITY MEMORY

COMMUNITY MEMORY is a kind of electronic bulletin board, an information flea market. You can put your notices into the Community Memory, and you can look through the memory for the notice you want.

When you put your notice in, you attach to it some identifying words called keywords; your notice is filed under those keywords. When someone is looking for a notice like yours, they search the memory using keywords, and when the computer has found the items with those keywords, it tells him/her how many it has found.

If one of your keywords is DUCK, then someone typing FIND DUCK will find your item. But if they type FIND DUCKS the item will not be located, because the computer has no imagination, and will act only on exactly what you type in. So spell it right, and use singular words when adding or searching for items.

ADD: To add an item,
     (1)   type ADD and press the green "Return" button;
                                   the machine will type TEXT:
     (2)   now type in your message, using the "Return" button to begin
           new lines.
     (3)   When you're through, press the yellow button;
                                   the machine will type KEYWORDS:
     (4)   now type the keywords, separating each word by a space. If
           your list exceeds a line, start a new line with "Return".
     (5)   When you're done, press the yellow button again,
                                   and the machine will ask HOW LONG?
     (6)   Type the number of days you want it to stay in the memory.
           For now 30 days is the limit.
     (7)   Press the yellow button again.
                           The machine will give you a number
                           identifying the item. You must use
                           this number to remove your notice
                           before it expires.
     (8)   The computer then types DONE. Your notice is stored and filed
           in the Community Memory.

FIND: To find an item, type FIND, followed by a keyword which you think
          will locate what you are looking for. Then press the green "Return"
          button. The machine will tell you how many such items have been found,
          or if the keyword is undefined--which means that no item has been
          entered with that keyword.

PRINT: Once you've located the items you want, you can have them typed
          out by typing PRINT, followed by a "Return". PRINT or PRINT ALL types
          out all the items you have located. PRINT 1 will type only the first,
          PRINT 4 only the fourth, etc.

KEYWORDS: will cause the item to be printed out with its keywords attached.
          It is used in the same way as PRINT.

To give us your comments and suggestions, ADD them, followed with the keyword
COMMENT. These will be very valuable to help the system grow with the community.

MUSIC
-----

125) *****
EXPERIENCEDPROFESSIONAL GUITARIST NEEDS WORKING GROUP.
ROCK, JAZZ, FUNK. CALL KEN AT 548-9923, EVENINGS.
KEYWORDS: MUSIC, GUITAR, WORK OFFER GUITARIST
2-26-74

126) *****
WE ARE LOOKING FOR AN EXPERIENCED GUITARIST/WRITER INTO HOWE, BARRE
AND FRAMPTON STYLES TO FORM A NEW BAND INTO PROGRESSIVE AND TASTY
ENGLISH-TYPE ROCK. SO FAR WE ARE A KEYBOARD PLAYER AND BASS PLAYER.
CALL FRED AT 339-2284 (OAKLAND) OR PETER AT 692-4836 (MILLBRAE).
KEYWORDS: GUITARIST GUITAR PLAYER WANT ROCK MUSIC MUSICIAN CONNECT
WRITER

127) *****
EXPERIENCED TRUMPET PLAYER -- JAZZ,BLUES, FUNK, LIGHT ROCK, ,COCKTAIL
SEEKS GIGS WITH WORKINGGROUP 849-38227
KEYWORDS: TRUMPET PLAYER OFFER HORN MUSIC MUSICIAN JAZZ ROCK
2-19-74

128) *****
WANTED BASS PLAYER FOR FOLK-ROCK BAND. MUST BE EXCELLENT AND
EXTREMELY SERIOUS. 548-2837
KEYWORDS: WANT BASS PLAYER FOLK-ROCK

129) *****
LOOKING FOR CREATIVE, JAZZ ORIENTED PIANO PLAYER FOR BLUES GIGS W/
GUITAR, BASS, HARP& DRUMMER. ANY VOCAL ABILITY GREATLY APPRECIATED.
CALL CHRIS AT 548-2513. (I'M NOT THERE TOO OFTEN SO LEAVE A MESSAGE.)
KEYWORDS: WANT PIANO PLAYER KEYBOARD JAZZ MUSICIAN BLUES CONNECT
MUSIC PERSON

CHANGE
------

50) ***** DO
UNITED FARMWORKERS UNION
1424 8TH AVE.
OAKLAND 94607
4446008
\FARMWORKERS WENT ON STRIKE IN SALINAS, CALEXICO AND COACHELLA WHEN
WHEN GROWERS ANNOUNCED THAT THEY HAD SIGNED CONTRACTS WITH THE
TEAMSTERS UNION. THIS WAS DONE WITHOUT CONSULTATION WITH THE FIELD WORKERS
THE STRIKERS ARE DEMANDING SECRET BALLOT ELECTIONS SO WORKERS CAN SELECT
THE UNION THEY WISH TO REPRESENT THEM. POLLS INDICATE THAT 80% OF THEM
FAVOR THE FARMWORKERS UNION. PLEASE SUPPORT THE STRIKE WITH
DONATIONS OF FOOD, MONEY OR BY GIVING YOUR OWN TIME. CALL UFWU.
USE UFWU CO-OP \47947 -- BOYCOTT SAFEWAY -- BOYCOTT GALLO
                              --FROM PEOPLES ENERGY
KEYWORDS: UNITED FARMWORKER'S UNION FARMWORKERS ORGANIZING GROUP
BOYCOTT SAFEWAY GALLO RADICAL POLITICS POLITICAL

51) ***** DO
VOCATIONS FOR SOCIAL CHANGE
4911 TELEGRAPH AVE.
OAKLAND 94609
653-6535
ONE PERSON CAN:
     ORGANIZE A COMMUNITY SCHOOL
     BEGIN TO STRIVE FOR CHANGE AT YOUR JOB
     FORM A TENANT'S UNION
     COLLECTIVIZE AND TACKLE LARGE PROBLEMS WITHIN THE COMMUNITY
YOU CAN FIND OUT ABOUT HOW TO DO THESE AND OTHER THINGS YOURSELF,
WHERE THEY ARE BEING DONE ALREADY, AND WHO TO GET ADVICE FROM
ON PROBLEMS AND PROCESSES THROUGH VSX. WE ARE A COLLECTIVE THAT
FUNCTIONS AS A NATIONAL INFORMATION CLEARINGHOUSE FOR PEOPLE AND
ORGANIZATIONS WORKING FULL-TIME FOR RADICAL SOCIAL CHANGE. OUR
MAGAZINE 'WORKFORCE' CONTAINS JOB OPENINGS, ARTICLES ON HOW TO ORGANIZE,
CREATE YOUR OWN JOB OR PROJECT, AND A RESOURCE SECTION OF OVER
250 GROUPS WILLING TO ANSWER QUESTIONS AND GIVE ADVICE ON HOW TO
WORK IN THEIR FIELDS. A $5 DONATION IS ASKED FOR A SIX MONTH SUB.
                              --FROM PEOPLES ENERGY
KEYWORDS: VOCATIONS FOR SOCIAL CHANGE JOB OFFER MAGAZINE
WORKFORCE COUNSELING ALTERNATIVE WORK RADICAL INFORMATION
GROUP OFFER

2-17-74

126) ***** BERKELEY
BERKELEY FIRE 845-1710
KEYWORDS: BERKELEY FIRE DEPARTMENT OFFER EMERGENCY SERVICE
2-17-74

127) ***** BODY
EMERGENCY VICTIMS: EMERGENCY ENTRANCE OF HERRICK MEMORIAL
HOSPITAL, CORNER OF HASTE AND MILVIA STREETS, BERKELEY
    PROVIDES FULL TREATMENT FACILITIES ALTHOUGH FEES ARE HIGH.
PERSONS UNABLE TO PAY FOR TREATMENT MUST GO THE THE HIGHLAND
COUNTY HOSPITAL IN OAKLAND, WHERE FEES ARE DETERMINED BY
THE PATIENT'S ABILITY TO PAY.
KEYWORDS: OFFER SERVICE GROUP BERKELEY OAKLAND BAY AREA EAST
HERRICK HOSPITAL EMERGENCY TREATMENT HELP FIRST AID AMBULANCE

128) ***** BODY
BERKELEY DEPARTMENT OF PUBLIC HEALTH--OFFERS ADVICE AND
ASSISTANCE FOR A WIDE RANGE OF HEALTH PROBLEMS, INCLUDING
MATERNITY CARE, PREGNANCY, FAMILY PLANNING, IMMUNIZATIONS, TUBERCULOSIS,
DRUG ABUSE, VENEREAL DISEASE, MENTAL DISORDERS.
644-6437
KEYWORDS: OFFER SERVICE GROUP BERKELEY DEPARTMENT OF PUBLIC
HEALTH MEDICAL INFO INFORMATION TREATMENT HELP MATERNITY
CARE PREGNANCY V.D. VENEREAL DISEASE IMMUNIZATION TUBERCULOSIS
DRUG ABUSE MENTAL DISORDER MEDICINE CONTRACEPTION
BIRTH CONTROL FAMILY PLANNING

129) ***** DO
EAST OAKLAND SWITCHBOARD 2812 73RD AVENUE PHONE 569-6369. GRASS
ROOTS COMMUNITY INFORMATION AND REFERRAL AGENCY, ORIENTED
TOWARDS TWO MAIN GOALS: SOLVING DAILY SURVIVAL PROBLEMS
(FOOD, MEDICAL CARE, ETC.) FOR LOW-INCOME PEOPLE AND ORGANIZING IN
THE COMMUNITY TO PROVIDE LONGTERM SOLUTIONS TO THESE PROBLEMS.

DO
--

153) *****
I AM EXPERIENCED IN ASSEMBLING AND TROUBLE-SHOOTING HI FI
EQUIPMENT. NEED HELP\
CALL ROLAND ALDRIDGE, 549-0198 OR 848-5216.
KEYWORDS:
STEREO ELECTRONICS SOUND HIFI OFFER CONNECT REPAIR CONSTRUCTION
AUDIO

154) *****
TELEVISION REPAIR WORK GUARANTEED 843-4530 DIAS
KEYWORDS: TV TELEVISION REPAIR BISP

155) *****
FREE PLUMBING REPAIR--THRU I.S.C.C.F. SURVIVAL CENTER, BERKELEY
1415 STANNAGE ST., 525-4375
THE INTERCOMMUNAL SURVIVAL COMMITTEE TO COMBAT FASCISM HAS
INSTITUTED A FREE PLUMBING REPAIR SERVICE AS ONE OF ITS COMMUNITY
SURVIVAL PROGRAMS.
CALL BETWEEN 10 AM AND 8 PM
AND IF YOU WOULD LIKE TO HELP, DO--CALL US!
KEYWORDS: PLUMBING OFFER SERVICE GROUP I.S.C.C.F. SURVIVAL CENTER
REPAIR BERKELEY PLUMBER
2-12-74

156) *****
INCOME TAX RETURNS DONE AT MY HOUSE (DOWNTOWN BERKELEY) ORYOURS.
I PREPARE THEM PERSONALY AT REASONABLE PRICES. CALL DVORA AT 848 2284
FOR APPOINTMENT. TODAYS DATE IS 1 /30/74.
KEYWORDS: OFFER SERVICE INCOME TAX RETURN PREPARATION IRS BERKELEY

157) *****
655-0559 BARBARA KELLER BABYSITTING CROCHET WEAVING
KEYWORDS: BARBARA KELLER BABYSITTING CROCHET WEAVING PERSON
SERVICE OFFER BERKELEY

VOICE
-----

649) *****
     ENTRY DESIGNATOR:
PROCEED AFTER ENTERING ACCESSION NUMBER:

CONFIDENTIAL/FULCRUM ACCESS POINT/RESTRICTED DATA BASE

REQUIRED DATA INPUT, FILE NUMBER 2F-35373994803098373583648585947-J

SPECIFIC COLLECTION REQUIREMENTS ---
   1. ORGONE ENERGY LEVELS, SITES 39-11 AND 54-40

   2. FLUX PARAMETERS IN YOUR DROP ZONE

DEADLINE FOR SUBMISSION: EARTH DATE 053/74
KEYWORDS: FULCRUM
2-20-74

650) *****
FIND 1984, YOU SAY\ HEH, HEH, HEH . . . . . JUST STICK AROUND
ANOTHER TEN YEARS/LISTEN TO ALVIN LEE/PART YOUR HAIR DIFFERENT/
DROP ASPIRIN/MAKE A JOINT EFFORT/DRIFT AWAY/KEEP A CLEAN NOSE/
HUM <OM ON THE RANGE>/QUIT KICKIN YORE HEARTS SEE ME,
FEEL ME/U.S. GET OUT OF WASHINGTON/FREE YHE INDIANAPOLIS 500/
GET UP AND GET AWAY/FALL BY THE WAYSIDE/FLIP OUT/STRAIGHTEN UP/
LET A SMILE BE YOUR UMBRELLA/ .... AND ....

          B E F O R E   YOU KNOW IT <><\<><><><><><\<><>

                    1984
                    WILL
                    FIND
                    YOU!

AN IT'S GO! BE RIGHTEOUS . . . .
KEYWORDS: 1984 BENWAY TLALCLATLAN INTERZONE MAG-2
2-20-74

651) *****
I DO NOT EAT RABBITS EITHER!
KEYWORDS: RABBIT RABBITS ANIMALS PETS ANIMAL PET
2-6-74

CIRCUIT

CITY

CLARINET

CLARK

CLASS

ELECTRONICS
----

219) *****
COURSE IN ELECTRONICS BEING OFFERED AT NORTH PERALTA COMMUNITY
COLLEGE (FORMERLY GROVE ST. COLLEGE). COVERS BASICS OF DC, AC,
CIRCUITS, AND ON INTO TRANSISTORS. NO LECTURES: PROCEED AT
YOUR OWN RATE, DO YOUR OWN LABS. HOWARD POULTER IS THE
INSTRUCTOR; 2 YEAR COURSE, CHECK IT OUT! NO. PERALTA
IS ON GROVE ST., JUST PAST ALCATRAZ AVE.
KEYWORDS: OFFER EDUCATION LEARNING ELECTRONICS COURSE
TEACH AC DC COLLEGE SCHOOL CLASS LAB

220) *****
I AM INTERESTED IN BUILDING ELECTRONIC INSTRUMENTATION FOR KIRLIAN-
EFFECT TYPE RESEARCH. I AM A SKILLED ELECTRONIC ENGINEER, AND HAVE THE
MEANS (TIME MAY BE A PROBLEM), BUT I DO NOT WANT TO BECOME A RESEARCHER AND
SET THE SPECIFICATIONS. IF YOU CAN SPECIFY IT, I CAN PROBABLY
DESIGN IT FOR EASY CONSTRUCTION. LEE FELSENSTEIN, 845-4736
KEYWORDS: KIRLIAN BIOFEEDBACK ELECTRONICS ENGINEER
 5

221) *****
WANTED SLIDE POTS 10K-100K; ALSO LARGE MEMORIES, POSSIBLY ECL
KEYWORDS SYNTHESIZER,COMPUTER,ELECTRONIC
CONTACT FREDDY ROSE AT 2955 PIEDMONT TELLY 843-9616
KEYWORDS: SYNTHESIZER COMPUTER ELECTRONIC ELECTRONICMUSIC MEMORY

222) *****
PHASING--NEED CIRCUIT TO BUILD AN ELECTRONIC PHASER-PHASE SHIFTER.
LEAVE MESSAGE UNDER KEYWORD *PHASER, AND/OR CALL
MARK, 549-0476
KEYWORDS: PHASING PHASER ELECTRONIC ELECTRONICS MODULE
IC CHIP SYNTHESIZER STAR-TREK WANT CIRCUIT SHIFTER PHASE

223) ***** INFO
WIENER, NORBERT. THE HUMAN USE OF HUMAN BEINGS
     NEW YORK . AVON BOOKS 1950

544) ***** CONNECT
WERE YOU AT THE NEW GAMES TOURNAMENT\
DID YOU HEAR WAVY GRAVY SING OM ON THE RANGE\
LEAVE YOUR REACTIONS AND COMMENTS, MESSAGES AND NOTES, HERE!
USE NEW-GAMES AS KEYWORD.
KEYWORDS: NEW GAMES TOURNAMENT NEW-GAMES WAVY GRAVY GAME

545) ***** CONNECT
I AM LOOKING FOR EXPERTS AT THE MATHEMATICAL GAME OF SPROUTS.
SEE SCIENTIFIC AMERICAN 1967 JULY OR THE S.F. BOOK MACROSCOPE
FOR RULES. WRITE TO ROBERT MAAS, PO BOX 371, MOUNTAIN VIEW,
CA 94040 OR PHONE (415) 323-0720.
KEYWORDS: SPROUTS MATHEMATICAL GAME CONNECT ROBERT MAAS ARIES
PERSON PLAY

546) ***** CONNECT
LOOKING FOR PEOPLE TO PLAY TENNIS WITH ** INTERMEDIATE
CALL 845-5618
KEYWORDS: TENNIS CONNECT PERSON PLAY GAME

547) ***** CONNECT
ELDERLY MAN, RETIRED, LIFELONG TENNIS PLAYER, WOULD LIKE TO FIND
A PARTNER TO PLAY EARLY MORNINGS, PREFERABLY ON COURTS SOUTH
OF U.C. CAMPUS. CALL AARON: 841-9959
KEYWORDS: TENNIS PLAYER PARTNER CONNECT WANT OFFER GAME PERSON

548) ***** CONNECT
BRIAR, RICHARD J. PO.BOX 4511, BERKELEY, CALIF. 94704.   A2341
ELLSWORTH, BERK. TUTOR- HUMAN-POWERED FLIGHT ENTHUSIAST.
KEYWORDS: BRIAR TUTOR HANG-GLIDER CONNECT HANG-GLIDING

Here DP Qualifies As Pro Bono Publico

By Lee Felsenstein
Special to Computerworld

SAN FRANCISCO — All professions have the responsibility of preventing their services from being just a commodity sold to the highest bidder. The older professions of medicine and law meet this responsibility by encouraging their members to give a part of their services without concern for fees, using the extent of the need for the services as the main criterion. This is referred to as their *pro bono publico* (for the public good) service.

But can data processing similarly qualify as a profession by equally serving the public good?

It is a substantial question, but one which Resource One, Inc. is answering affirmatively.

Resource One is a non-profit-making, charitable corporation which grew out of the desire of some computer science students to create new ways to use computer technology which would be useful to, and used by, ordinary people on a grass-roots level.

This year Resource One is offering a Community Memory Service in Berkeley, Calif.

The following dialogue gives an example of the nature of the service:

"*What's this?*"

"*Your friendly neighborhood computer. It's like a bulletin board where people electronically post notices and search for other people's notices.*"

"*Oh, wow! Is that a computer?*"

"*No, that's just a teletype-writer. It's hooked to our computer in San Francisco by that*

phone down there. Want to try it? Looking for something? It's free for now . . . "

"*Are there any rides to Portland listed in it?*"

"*Why don't you try typing FIND RIDE PORTLAND . . .*"
And so it goes.

The results have been pleasantly surprising. Even before they try it, people are delighted that at last a computer is available for benefits that are real to them. In over three months of operation, the "community" has expanded the current data base to over 700 items, and more than that number of items was deleted when they expired.

Operator Does Not Operate

The key operational design criterion is that the Resource One operator does not operate the terminal. Users do, while the operator simply assists them in entering and retrieving items themselves. Items are classified by keywords thought up by the users, with the help of a list of currently used keywords.

The basic hardware design criterion is that the hardware is not state-of-the-art, so its financial burden is kept very low. As might be expected considering the location, the hardware is a donated XDS 940 system, which was once part of a large time-sharing system when it was developed.

The software and hardware modifications are handled by the members of Resource One.

Regional, Town Needs Prepared

The group plans to provide multiple terminals on the Community Memory, moving toward an on-line network of neighborhood and regional information

centers.

And it is working on a hardware and software package which will service a larger area, hopefully the information exchange needs of 100,000 people — with, naturally, minimal maintenance.

Resource One plans to remain non-profit. To have to support such efforts by turning a profit would jeopardize their positive social potential. There is also the fear of the political controls or excessive restrictions that experience leads us to expect from government funding.

Instead, Resource One intends to charge for commercial-type use of the network, with no charge for non-commercial use.

In this effort, perhaps, is a hope that the development and operation of these and other public-benefit applications by members of the DP profession will be a really important factor

in the future value of DP to our society.

Many of the users have indicated they would be willing to pay a fee for Resource's services. But that is a matter for the future. For now, it is sufficient to say that Resource One has tried to provide *pro bono publico* services, and has found it not only possible but not too difficult to do at all.

Lee Felsenstein is president of Resource One, Inc. (Resource One is interested in comments and correspondence regarding these issues. The address is 1380 Howard St., San Francisco, Calif. 94103.)

The Taylor Report
By Alan Taylor, CDP

Packet Communications is not based on such computer-centered thinking. Instead, it is using its own systems, and its leased telephone lines to serve other members of the DP "family." PCI wants to connect subscribers with terminals, and subscribers with computers. The idea is not to perform DP (indeed, that is specifically an almost forbidden function) but to use DP to improve the performance of others.

And that is a family concept — brand new in being FCC-approved in 1973.
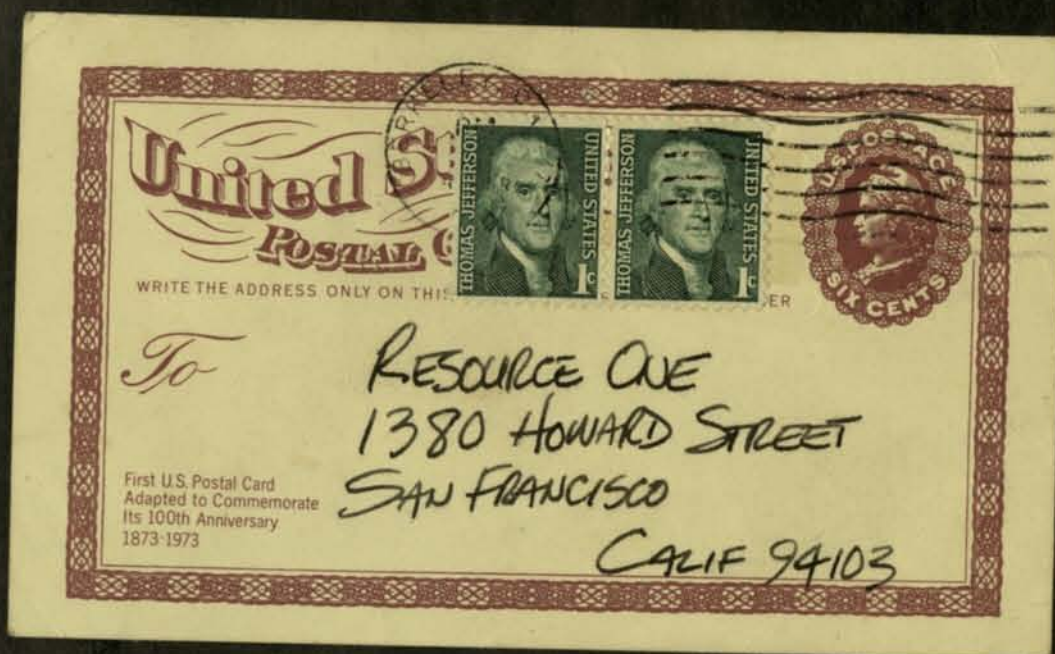
So, also, is the equally new Community Memory facility in San Francisco (see Page 1). This facility is giving DP a good name because computers are shown as useful machines. Resource One, in my experience, has had a Christmas feeling about it all year round.

The wonder of an ironsmith giving weeks of his time to put up the security gates around the computer, the programmers sitting down to design new ways for bringing an intrinsically old system into a new productive life; and the professional handling of the maintenance by volunteers have always seemd to me a modern fairy tale.

But now, in 1973, their efforts have paid off, and the strength of DP is helping others, not just data processors themselves.

That is another Christmas story.

WRITE THE ADDRESS ONLY ON THIS...

United S...
POSTAL C...

First U.S. Postal Card
Adapted to Commemorate
Its 100th Anniversary
1873-1973

To

RESOURCE ONE
1380 HOWARD STREET
SAN FRANCISCO
        CALIF 94103

*** TLALCLATLAN BOOGIE BULLETIN ***

WENT DOWN TO TH' TERMINAL
      TO PLAY SOME SOFTWARE TRIPS
AW, FELL BY LEOPOLD'S
      TO GET MAHSELF A   F i X !
IF YOU DON'T BRING BACK THAT 3?,
I'M GONNA JUMP INTO TH' RIVER STYX !

[RESEARCH NOTE:

    DO:
        * FIND FULCRUM]   SEE YA AM
                                           PM

                          >>> Doc <<<

---

145)   WHAT THIS COMMUNITY MEMORY MAKES ME WANT TO DO IS LEARN MORE ABOUT
       COMPUTERS. I HAVEN'T EVER BEEN EXPOSED TO ONE IN THIS MANNER, I.E.
       BEING ABLE TO USE IT MYSELF. USING IT MAKES ME REALIZE THAT THERE ARE
       AMUSING AND INTERESTING THINGS THAT CAN BE DONE WITH COMPUTERS. BEFORE
       THIS I NEVER HAD ANY INTEREST IN LEARNING ABOUT THEM - SOMEHOW I ONLY
       THOUGHT OF THEIR POSSIBLE USES AS \SCIENTIFIC\, RATHER STERILE. BUT
       HAVING SEEN THIS EXAMPLE OF A POSSIBLE USE, I NOW AM CURIOUS ABOUT
       HOW THEY OPERATE AND FIND MYSELF WANTING TO BE ABLE TO PROGRAM THEM.
       NOW I MIGHT CONSIDER TAKING A CLASS OR SOMEHOW LEARNING ABOUT COMPUTER
       PROGRAMMING.
       KEYWORDS: COMMENT COMMUNITY MEMORY
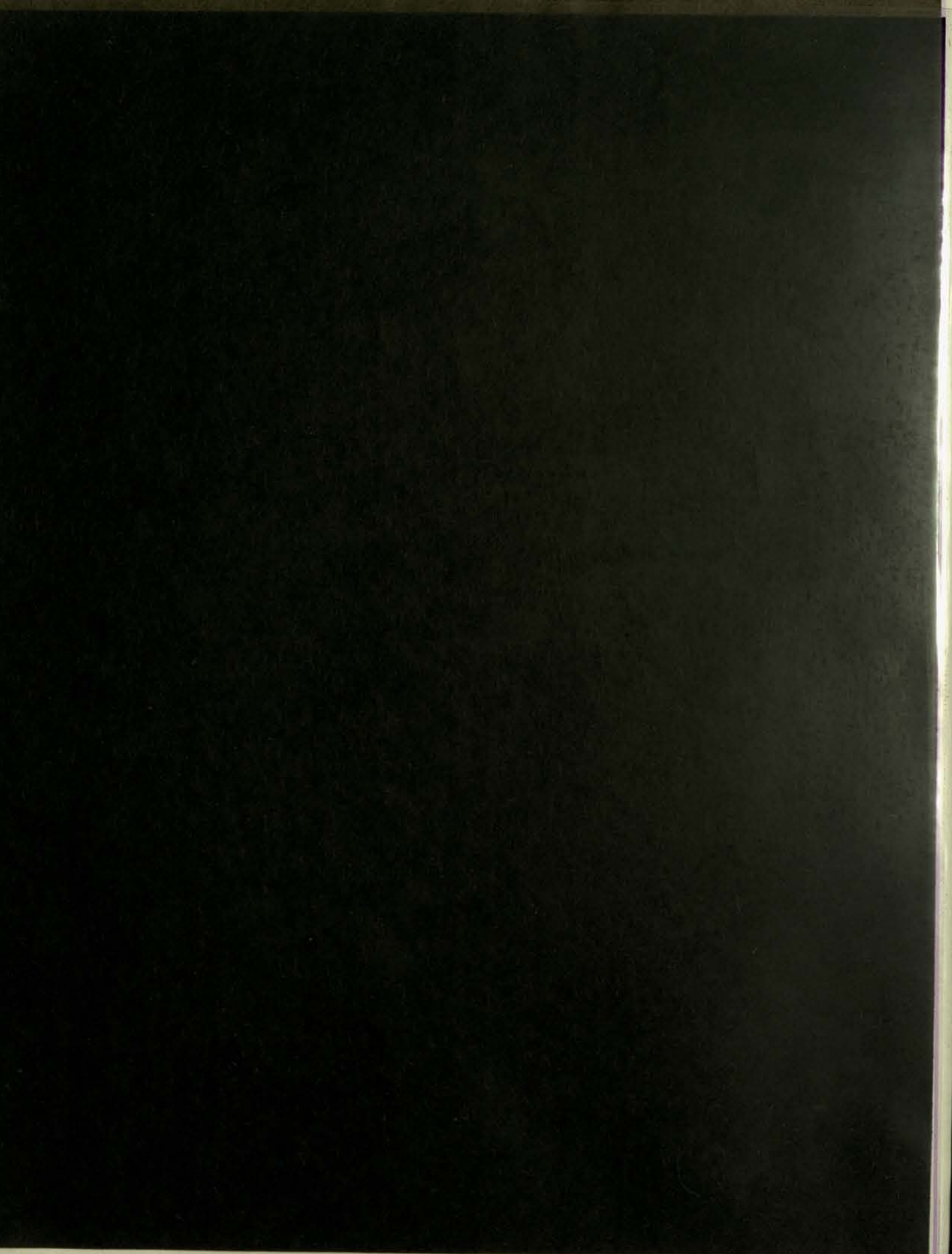
COMMUNITY MEMORY: A PUBLIC INFORMATION NETWORK

Ken Colstad and Efrem Lipkin
Loving Grace Cybernetics
1609 Virginia St.
Berkeley CA 94703

ABSTRACT

For the last year the Community Memory Project has been demonstrating the potential of computer-based *public access* communications media with a small network of public terminals in the San Francisco Bay Area. From any terminal it was possible to search a common data base using boolean combinations of keywords or to add and index new information/messages of whatever nature the user desired. Both the ease with which the public accepted the service and the imaginative uses to which it was put were surprising and gratifying. The project is currently developing hardware and software systems to move the idea from an externally financed experiment to a cheap, self-sufficient service available in all the neighborhoods and to all the cultures of the Bay Area. These systems would supply the basic tools for establishing similar services elsewhere, and provision is being made so these regional networks could be linked to form a continental information sharing network. It is hoped that the project will serve as an inspiration for using the computer technology to meet real human needs rather than to make money.

After twenty-five years of computer development, the question is still open as to whether this technology can be directly useful to the public. People at present generally believe that computer systems are used on them rather than for them. Could computer information systems be accepted and used by the public? In most information-handling systems, people have no control over the way data about them are acquired and used. Information in these systems is used for monitoring of people by institutions, and is often regarded as useful if it is negative.

The few public-access systems are vertically organized, conceived primarily for delivery of computer-aided instruction and other pre-selected information, as thoroughly editted as in other forms of mass communication. The possibilities of horizontal, person-to-person data acquisition and delivery have not been explored.

Such a horizontal system would allow the public to take advantage of the huge and largely untapped reservoir of skills and resources that resides with the people. One-to-one communications media such as telephones and letters create no new links, while one-to-many connections such as television, newspapers and bureaucracies inevitably restrict the flow of information through their offices. Since political and economic power follows the lines of communication, the potential for abuse is tremendous. A large pool of information, freely accessible and amendable through public terminals, is one of the few systems proposed for many-to-many communications.

A critical context for use of such a system would be in community based information centers rather than terminals located only in private homes. This might counteract the tendencies toward fragmentation and isolation so visible in today's society by significantly augmenting environments where small groups of people congregate and interact on an informal basis.

For the past year the Community Memory project has been demonstrating the potential of computer-based public access communications media with a small pilot network in the San Francisco Bay Area. From three publically located terminals it was possible to search a common data base for information or to freely enter new information or messages. The public accepted the service with remarkably little hesitation and put it to a much broader range of uses than was anticipated, proving that given the tools, the public will not only provide for its own information needs but will do so with great creativity.

This was a crucial question for the organization which spawned the system. Resource One, Inc. of San Francisco is one of the few public service computer centers in the country, a non-profit corporation devoted to charitable and educational uses of data-processing technology. Resource One had available an XDS-940 timesharing computer and ROGIRS, an efficient keyword based text retrieval package based on the MIRS system developed by Robert Shapiro of META. The software was modified to simplify the command structure for public use and to improve the security of the data and of other system users.

To use Community Memory, the user would type the command ADD, followed by the text of the item, and then by any keywords under which he desired the item to be indexed. To search for an item, the user would type the command FIND followed by a logical structure of keywords connected with AND's, OR's and NOT's.

The first port to this system was installed without fanfare adjacent to a bulletin board in a non-profit community record and music store in Berkeley. People were delighted by the chance to put a computer to use, frequently commenting that "it's about time!" They encouraged their friends to use the system, instructed one another in its use, and seemed fascinated as much by the possibilities of the medium as by the technology itself. This level of acceptance was not confined to the relatively sophisticated student area, but carried over to later installations such as one at a library in San Francisco's polyglot Mission District.

Initially the location of the terminal and its popular characterization as an 'electronic bulletin board' determined the public's expectations and uses of the system. Installed during the August housing crunch, it became immediately useful in the students' searches, with the rate of success growing with the size of the data base. Musicians, always in search of others with whom to practice, entered themselves and their special areas of interest. Instruments were bought and sold, producers found new opportunities, and groups advertised their availability. New groups, in fact, were often assembled on the spot from leads found in the data base, and from people waiting around for their turn to use the terminal. Similarly, people used it to assemble car pools, organize study groups, find chess partners, and pass tips on good restaurants. Interesting and unanticipated uses developed: poems, graphics, dialogues among strangers, and items most analogous to letters to the editor, but much freer in content and form: instant publication by a 'very small press' had become available to all who claimed literacy.

The rate of use of the system was fairly high and constant in relation to the environment of the terminals. About fifty searches and ten additions occurred each day at each location. Given the length of individual sessions with the system, this was at least one-third the maximum capacity of a terminal.

The crucial factor in determining the manner in which the system was being used was the rate of success, which in turn was determined by the data density for each subject area. A bootstrapping effect brought the density up slowly to a critical level, after which usage rose rapidly to a maximum level for that application. This critical level was never reached for certain roles in which the system would be uniquely valuable, such as a skills bank, learning exchange, forum for ad hoc organization, or barter marketplace. Since no institutions have filled these information needs, they are not generally expected to be met, but a significant number of users independently innovated these applications of the system.

The bootstrapping principle was self-evident in operation, and a number of individuals stimulated the process with bulk entries in their own special interest areas. These gratuitous offerings of information contributed strongly to the richness, diversity, and utility of the data base. Information degrades, however, and the responsibility felt by these users for maintenance and updating could not be effectively dealt with or assessed. To safeguard against unilateral censorship or destructiveness, the public had no editing privileges, although a number of people clearly could have been trusted to shepherd parts of the data collection. The system provided for maintenance by requesting a deletion date at the time of the addition, but this proved inadequate for all but the most 'classified ad' type of entry.

Malicious and obscene items, trivia, and misinformation represent the major opportunities for abuse of the system. In practice this kind of misuse was not prevalent, but scanning for it increased the maintenance responsibilities of the pilot project

staff. An attitude of 'caveat emptor' has been advocated in this regard, since the content and relevance of the items the user finds can never be guaranteed. The editorial processes that have evolved in other media are not completely successful in this context, nor are they readily transferable.

Other inherent problems appeared due to inexperience on the part of the users with typewriter keyboards, spelling errors, and misunderstanding of the keyword concept. The social interactions around the terminals have been the only way of dealing with these difficulties.

The other deficiencies encountered in the operation of the pilot system can be effectively dealt with through redesigned software. The primary consideration in current design plans, however, is maintenance of conviviality in the interactions with the users. People must gain a sense of understanding of and control over the system as a tool. While it must command sufficient intelligence to recognize and respond to the most naive user, that intelligence should be directed toward instructing him, demystifying and exposing its own nature, and ultimately giving him active control. Meeting this criterion without placing excessive demands on the user deeply tests the system designer's ingenuity.

This is especially relevant in the case of the current design strategy, which includes the implementation of a tree structure of categories as a parallel and alternative mode of searching for items. This would allow users unfamiliar with the system to browse through a structured environment of hierarchically categorized items while enabling more experienced users to search directly on content with the system in a more passive mode. Any such categorization scheme is necessarily biased by the paradigm with which the designer interprets and organizes the world. Minimizing this effect complicates the system and challenges the design group.

Other innovations under development include the implementation of named fields to aid narrowing the searches by date and value. Item ownership will allow 'information shepherds' and organizations such as switchboards and other referral agencies to maintain subsections of the data base for their own use while sharing it with the public. Dialoguing and conferencing will be more explicitly supported, while games and other special purpose programs will be available to various users.

The pilot system, supporting few terminals on a large, expensive general-purpose time-sharing computer, was not economically reasonable. Through careful mathematical analysis it has been determined that by using an optimized file structure, good searching procedures, and a thoughtfully coded mostly core resident program, more than 64 simultaneous users could be serviced by a 24K mini computer the speed of a NOVA or PDP 11/40. Such software is currently being developed along with custom terminal multiplexing hardware which will greatly reduce the load this many terminals place on the CPU. With the broad base for capital and maintenance costs this system provides and the

use of the low-cost, people-oriented Tom Swift Terminal described elsewhere at this conference, costs should be less than $2000 per public access site.

Each of these minicomputer systems will be capable of networking with others, exchanging information of a non-localized nature, and providing a nationwide conferencing medium. Groups such as Infact in Vancouver, B.C. and the Boston Children's Museum are contributing to the design of the mini-system while testing concepts with their own systems based on Community Memory. A cooperative effort seems the correct way to bring about systems for information sharing.

The cooperative use of technology to meet human needs, rather than its competitive use to create lucrative mass markets in electronic elaborations of simple devices and services, is the basic goal of the Community Memory project. This sort of direction is a sadly rare style among engineers, programmers, analysts, and the people who coordinate their work. But the issues of how and for whom the technology will be made to perform are becoming ever more critical. They play a deep role in the continuing economic, ecological, political and energy crises. These issues must be dealt with by both the people who have mastered and currently control the technology and those people it is claimed the technology is serving. But the heaviest responsibility lies with us, who create with the technology, to be conscious of the significance of our creations and to actively make sure that they are directed toward the greatest good.

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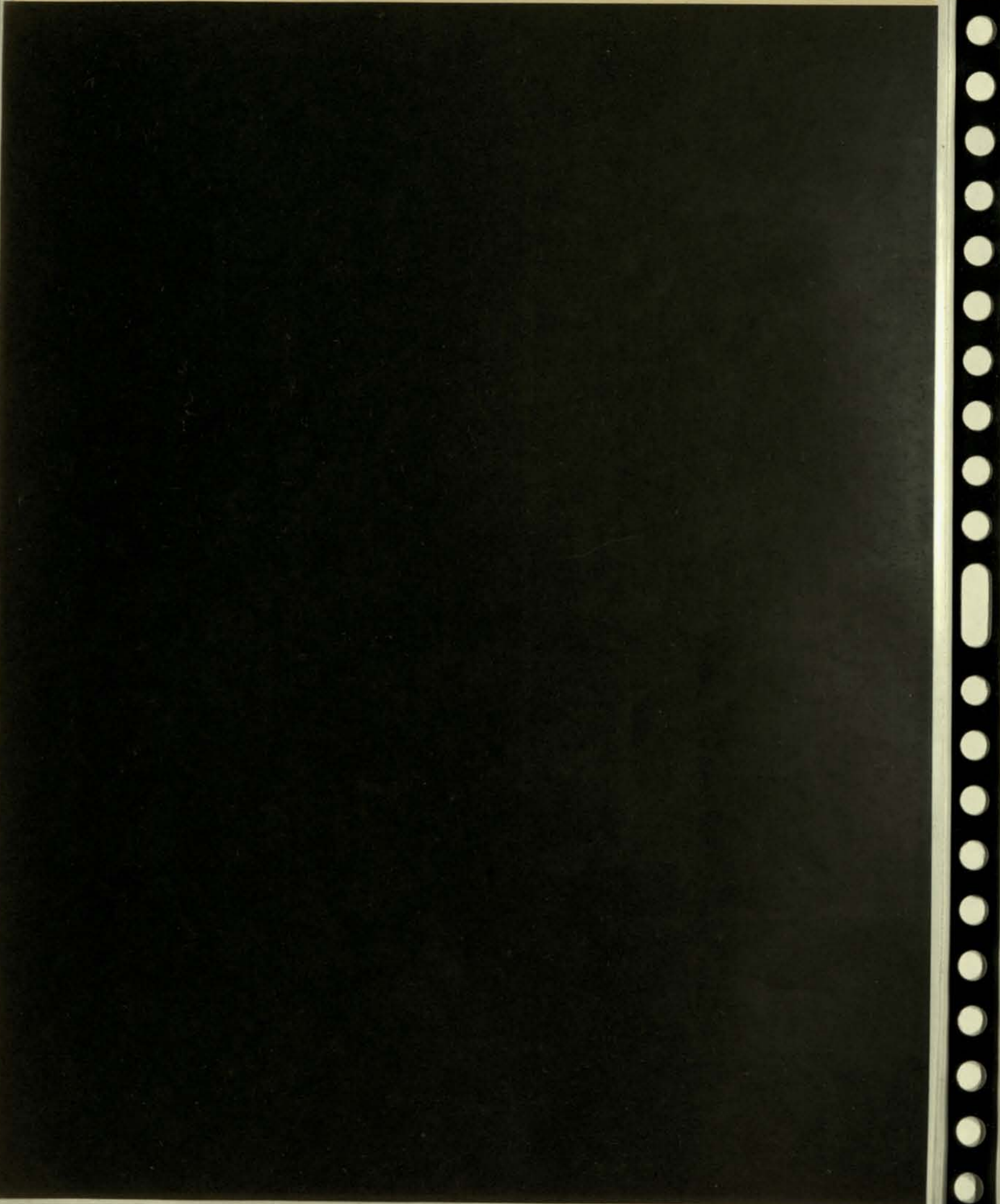
COMMUNITY MEMORY WILL BE

The project will set up a network of at least 32 terminals around the Bay Area which will communicate with a minicomputer at the Lawrence Hall of Science at the University of California. The terminals will be in publically-accessible locations such as libraries, shopping centers, and governmental public-service agencies.

At each location there will be a person trained by the project staff who will be able to answer questions and render assistance regarding the operation of the terminals, which will otherwise be unmanned. Instructional materials will be available at each terminal so as to allow first-time users to begin entering and searching for data.

Members of the project staff will circulate regularly among the terminal sites to ascertain how well the system is being used and what problems may exist. These staff members will also maintain responsibility for overseeing the data on a regular basis so as to prevent illegal or injurious uses of the system.

The performance of the system will be monitored and statistical abstracts will be made publically available. Interaction will be encouraged with research projects in communications and public policy, for which the system can serve as a source of raw data.

The aim of the project will be to develop a system of proven efficiency which may be replicated elsewhere with the capability for networked information interchange among local systems. Objects for development will be hardware, software, operating procedures and standards.

Flags on the Pavilion — Paul Klee

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Community Memory News

This is the inaugural issue of *Community Memory News,* the print-medium companion to the Community Memory computer system. Its publication marks the approach of the first public demonstration of the Community Memory system since 1975.

By producing this newsletter, we hope to enlarge our circle of friends and allies; to ask for your feedback; and to keep you in touch with our progress, our debates, and our excitement. We'll be publishing *Community Memory News* irregularly for a while, and more frequently as the pilot system begins operation.

In this issue, we include a brief section about the Community Memory vision and a description of its intended physical incarnation for those of you who aren't already familiar with it. Most of the rest of the newsletter is devoted to the state of the project: our current thinking about the hardware we'll use, the design of our software, the location and nature of the pilot system, the social and political meaning of the system, and the immediate and longer-range problems to be resolved.

The success of the Community Memory system depends as much on its social design as on the hardware we choose or the details of its user interface. In all these areas, we invite your comments. As we proceed, we'll also be asking for your participation.

Community Memory can be used as a community filing cabinet, a continuously available conversation on any topic whatsoever, a place for people with common interests to find each other.

Community Memory is designed as a powerful and public system for communications and information exchange. Its medium will be computer technology: a network of relatively small and cheap computers, each connected to a dozen or more terminals located mostly in public places such as neighborhood centers, cafes, bookstores, and libraries.

The Community Memory system will provide simple yet powerful ways to store and label information, which can then be browsed, selected, sorted, and fished out. All the facilities of the system are available to all its users: anyone can post messages, read messages, and add comments or suggestions to them.

Community Memory can be used as a community filing cabinet, a continuously available conversation on any topic whatsoever, a place for people with common interests to find each other, a tool for collective thinking, planning, organizing, and fantasizing.

Messages on the Community Memory system might include:

• announcements and comments on current events, entertainment, restaurants

• debates about community and political activities

• listings of community resources

• information about bartering, buying, selling, and renting

• notices about groups being formed

• graffiti, poems, dialogues, and "multilogues."

Since the users themselves are the source of information in the Community Memory, the system is not subject to the various kinds of constraints imposed by commercial "information providers."

Each set of Community Memory terminals around a computer is called a "node." The first Community Memory node is now scheduled to begin operation in the San Francisco Bay Area in late 1983. It will serve as a pilot test and demonstration of the system. This pilot project and some of the issues it raises are discussed in "Coming Soon to a Terminal Near You" in this issue.
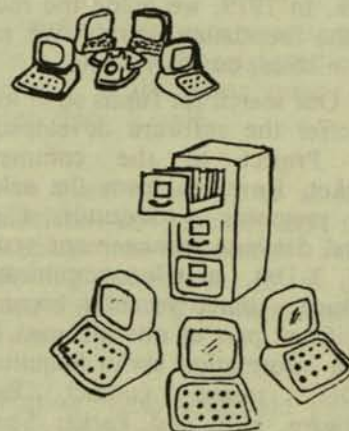
JUNIOR G-MAN

THE INVESTIGATIVE FILING SYSTEM

Every day, tons of information is being collected, all over the world. Investigations bringing together selected aspects of data can produce everything from market profiles to the life histories of galaxies. Now you can do the same kind of research on information of interest to you.

Junior G-Man helps you:

-- keep your personal and professional information organized

AND

-- conduct special investigations, deriving new information from research on seemingly unrelated data.

Why is this an 'investigative' filing system?

Junior G-Man can be your personal research assistant and librarian. It allows you to bring together just the items you choose and to see their relationship. You can select the items you want, from the data categories you want, in the order you want.

Junior G-Man stores all your information in tables under your choice of categories. There is no limit (except the storage capacity of your system) on the size of a table or an individual entry.

Junior G-Man is especially useful for keeping address lists and indexes, since it lets you enter and display information in "file card" mode (horizontal). The File Card feature allows entry fields to be used for comments and descriptive information, in addition to the regular data categories you're using to describe the data.

You can also print out (or display on the screen) reports of your research which can be re-named and re-arranged to suit your requirements. These reports can be printed out without headings, for labels and catalogue cards.

Best of all, Junior G-Man is always open to change. Unlike most filing systems, Junior G-Man offers you cursor-controlled screen editing of tables, cards, searches, and reports.

Junior G-Man's Commands include:

ENTER and EDIT...............data

SELECT..............data records using Boolean operators in an "example row" under your data categories.
Or, MANUAL SELECT, marking data records one by one

SORT................data records in ascending or descending order

REPORT.............generate a custom-tailored report of your research

GENERAL ECLECTICS
2608 8th St.
Berkeley, CA   94710
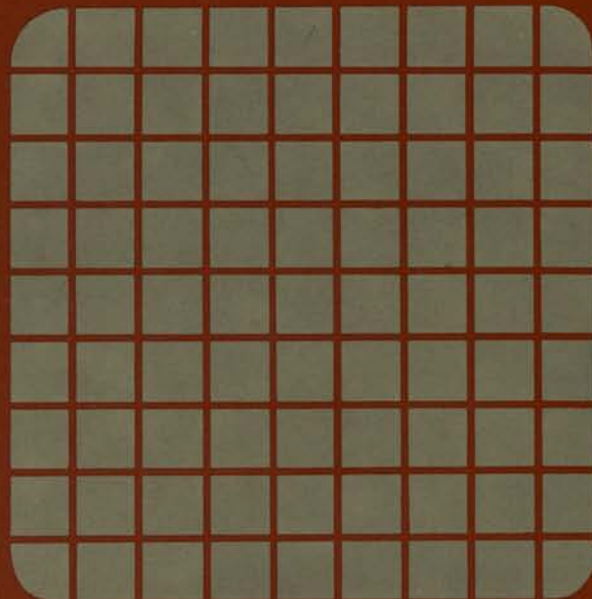
Sequitur™

There's never been an easier way to organize data.

Automatic starter,
automatic transmission . . .

ASAP FIVE

**IBM PC/XT compatibles; 192K; copy-protected?
YES; $275; ASAP Systems, Inc., 2425 Porter St.,
Soquel, CA 95073; 800/247-2727 or, in CA,
800/345-2727.**

**Number of files permitted per database: no limit
Records per file: 65,534
Fields per record: no limit
Characters per field: 40**

CHARLES SPEZZANO: Although I have
semimastered several database management
programs, I continued to manage my
hundred or so psychiatric patient records and
300 newsletter subscriptions (SPCU; see
p. 47) with only a good memory for the
location of papers and an occasional frantic
search for misplaced information. I'm a
database resister, rather than a connoisseur.
But I like ASAP FIVE very much.

ASAP is a relational database management
system with an automatic starter and
transmission instead of a crank and clutch.
Although it comes with an eighty-page
manual, the twelve-page tutorial and one-
page "mini manual" are probably enough to
get you up and running. Onscreen helps
guide you the rest of the way. ASAP asks you
straightforward questions, gives clear
directions, and does as much of the work of
data storage and retrieval as I can imagine a
program doing.

Other database systems demand a high
degree of organization from you before you
even use them, but ASAP allows you to be
extremely disorganized. Like my real-life
habits, my ASAP databases are heaping
masses of information until I ask ASAP to pull
one together in some specific way. Then it
gives me a particular set of facts in a second,
or a longer report in a minute. It further
tolerates my personal disorganization by
allowing me easily to redefine fields and field
entries, records, files, and report formats
without losing any data. I did not have to
learn to think like a database in order to use
ASAP. I think like me and it thinks
databasically.

ASAP's "Custom Reports" are designed in
question-and-answer procedures;
rudimentary word processing functions are
included for creating a "free-form" area of the
report. You can modify Custom Report forms
to add, delete, or move data and free-form
text as many times as you like. You can't
stack commands (it doesn't have a query
language), but with ASAP FIVE you don't
need to.

I asked Tom, a real estate agent, and George,
a CPA, both of whom use ASAP daily, for their
impressions. Tom, who had never used any
other program on his IBM XT, was entering
real data into ASAP after two hours of
practice. George uses ASAP for everything
from complex client tax records to his stamp
collection. He and his staff are currently
entering 300 time sheets a week, and as they
approach a thousand records, the search time
for a single record still appears to be in the
half-second range.

---

*Your friends all have short names—Ron, Jimmy,
Nancy, Henry—so you set up a seven-character
first name field. Then you meet Zbigniew
Brzezinski. With one function key (F9 — MODIFY
FIELD), ASAP FIVE lets you expand any field length
on this data entry screen. Zbigniew fits!*

A little slow, but handles text nicely . . .

SEQUITUR

**Version 3.20; IBM PC/XT compatibles; 256K;
copy-protected? NO; $795; Pacific Software
Manufacturing Co., 2608 Eighth Street, Berkeley,
CA 94710; 415/540-5000.**

**Number of files permitted per database: 750
Records per file: no limit
Fields per record: 1024
Characters per field: no limit**

TONY FANNING: SEQUITUR is another
serious DBMS, and the very definition of a
relational database management system. It
has several likable features: you can enter/
manipulate data in two forms (see picture);
you can add text to its variable-length fields
as an afterthought; you can easily create
detailed tabular reports of great complexity;
and you don't need to write programs, since
everything is presented in tables. You trade
this flexibility for speed (MS-DOS machines
barely give SEQUITUR the resources to do its
job; 68000-based micros might make it a joy
to use). You really need to be dedicated, since
all this is explained with "relational-DBMS
talk." A pleasant program for programmers;
masterable by nonprogrammers with some
effort.

*SEQUITUR displays data in either tabular
form . . .*

*. . . or in expanded form. Large text fields are
easy to handle.*

X.DOT

The only portable X.25 software package

Community Memory Project

PACIFIC SOFTWARE MANUFACTURING COMPANY
TENTH & PARKER, BERKELEY CA 94710
(415) 540-5000 CABLE: PACIFIC. TELEX 3718625

Sequitur

COMPUTER SOFTWARE

GENERAL ECLECTICS
2608 - 8TH STREET
BERKELEY, CALIFORNIA 94710

(415) 848-2693

pacific software manufacturing company

2608 eighth street   berkeley. california 94710   (415) 540-5000

CM COMMUNITY
MEMORY
PROJECT

EFREM LIPKIN
Systems Designer

916 PARKER ST., BERKELEY. CA 94710 (415) 841-1114

pacific software
manufacturing
company

2608 eighth street
berkeley. california 94710

efrem lipkin
consultant
(415) 540-5000

916 Parker Street, Berkeley California   94710   (415) 841-1114

A display card contains the character generator, sync generation circuitry, and video circuitry. Screen refresh is performed directly from the memory card, so the display card manages the repetitive block data transfers which this process requires.

The actual execution of these transfers is carried out by the block transfer card, to which the display card is connected. The block transfer card is essentially a DMA controller, containing four 16-bit registers, a 16-bit up/down counter, and a comparator. Through a generalizing design process, though, it has been configured as a "stupid processor" capable of either handling fast block transfers or of laboriously performing the rather simple screen-management editing algorithms.

This editing is performed under control of the input/editor card, which also connects to the block transfer card. A three-state bus on the front edge of the three cards just mentioned allows the cards to be easily interconnected. The display card always has priority to this bus.

The input/editor card, which contains a UAR/T through which it listens to the keyboard and external modem, is otherwise a small ROM controller, with up to 256 8-bit words of ROM, an address counter, skip and subroutine circuitry. This shares the resources of the block transfer card to feed characters into memory and updates the values of the three status registers included in the first "basic systems". These registers respond to the six highest memory addresses and are actually stored in the registers in the block transfer card. They represent the beginning-of-screen address (BOS), end-of-screen address, (EOS), and the equivalent cursor address (CRS).

In future, more intelligent applications, a microprocessor may be easily interfaced to the bus and the memory expanded to allow program storage and scratch space which is not displayed. The block transfer card continues to be required for screen refresh transfers, and could also be shared with a low-priority output device such as a line printer. There seems to be no visible limit to the number of configurations and applications possible with this system.

There is a growing field of amateur computer activity around the newly-available microprocessor chips. To encourage the use of this device in that milieu we have included what we call "hexagram display" as an optional means of allowing visual presentation of binary. The eight-bit number is displayable as a stack of eight solid or broken lines where characters are ordinarily displayed. This allows debugging of machine-language programs by users who have no familiarity with or even tolerance for conventional editing and debugging programs.

3. CONCLUSION

The example which I have been discussing is only a crude first attempt at using incompletely-developed design criteria. I urge that designers and engineers begin the development and refinement of these criteria.

The initiative for a design philosophy more in accord with the human ecology will have to come from us, and not from those in positions of economic or managerial control. Convivial designs are not good for maximizing the wealth of individuals. The point of putting such heresy into operation is to allow our efforts to maximize the wealth of society in a rational and humanistic context. I believe that it can and must be done.

May 11, 2007

Efram Lipkin
1811 Ward Street
Berkeley, CA 94703

Dear Efram,

Thank you for your participation in the recent exhibition *Radical Software* at the Wattis Institute, curated by Will Bradley. Enclosed please find installation photos of the work from your collection in the exhibition, as well as extra copies of the small brochure that was published in conjunction with this exhibition and press clippings.

We greatly appreciate your involvement in this exhibition and help in making it such a success.

Best wishes,

Stacen Berg
Assistant Curator