The Northwest CyberArtist

March, 1994 Volume Two, Number Two

REACTING TO THE MACHINE

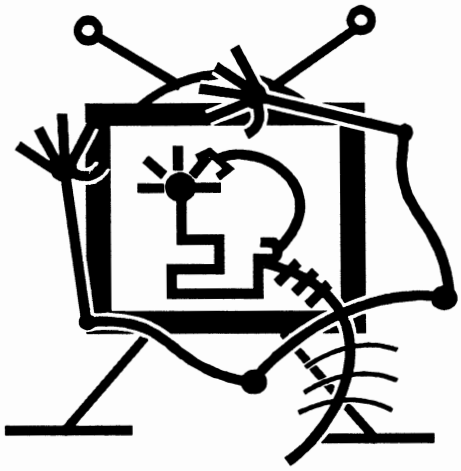
Responses To Emerging Interactive Technologies

by Pierre de Vries

New tools change how we relate to information, machines, and people. The emerging home oriented interactive technologies will undermine old concepts of time and distance, encourage new forms of group activity and alter how we use our homes.

> *Communications technologies blur boundaries that we have taken for granted, and claim new ones in their place. They obsolete ideologies and create new ones in their stead. Where is the person that I speak to on the phone? When somebody receives a voice mail message I left, where am I? This is not new; at least as old as writing, or even reported speech. Now, though, we project ourselves and our artifacts in new, more instinctively immediate, ways. A video recording of me seems more "authentic" than my writing. My image multiplies. Does the "original", the real me, gain a stronger aura, or is it devalued by all the copies? I feel today that the camera sucks out my soul.*

Interactivity is not "all or nothing". Different people feel comfortable with different degrees in interaction with their TV and/or computer. It is important that, superficially, as little as possible changes when interactive TV systems are introduced. For example, normal channel surfing will remain one of the key metaphors. Of course, there will also be completely new services that exploit the added computing power and bandwidth. Viewers must be free to choose the tools that they use to enable their interaction, based on their "comfort level" with the device or method: remote controls, simple speech recognition, keyboards and other devices yet to be invented.



> *Technology encroaches on us, and threatens to invade our personal space. The recent virtual reality craze was a pre-emptive strike against cyberspace, trying to invade it before it conquered us. Many artists respond to this by blurring or contrasting technology and the body. It's often a sexual obsession, from Duchamp to Rebecca Horn. Another fantasy will soon return, the Robot Invasion. In a few years we will share our spaces with intelligent lights, agents cyber- and material-, robo-insects, personal digital assistants.*

There is a lot of talk about the "500 new channels". This notion is intimidating to most consumers and probably inaccurate. There are many ways to reduce the complexity of the increased amount of available services. For example, some providers will present a small selection of the possible services to consumers, based on their lifestyles, preferences, or even in the form of games. Video on demand and home shopping are likely to drive the introduction of interactive TV in the USA.

> *"What keeps you going but gets you nowhere?" (a) A rocking horse; (b) debugging code; (c) debating art.*

Other services will enable people to meet, interact and exchange ideas and organize in new ways, regardless of time or geography. A group of art lovers from around the country might participate in a group discussion

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FEBRUARY MEETING:
MONDAY, MARCH 7

THE ART INSTITUTE OF SEATTLE
ROOM 717/718
2323 ELLIOT AVENUE
7:30PM

MARCH'S GUEST:
PIERRE DE VRIES
PROGRAM MANAGER FOR FUTURE HOME TECHNOLOGY – MICROSOFT

IN APRIL:
MARK LACAS FROM LONE WOLF DESCRIBES MEDIALINK

PUBLISHER'S CORNER

by Steve Turnidge

The northwest continues to grow in creative population. For example, 17 talented people just moved to Seattle with **Lone Wolf.** This cutting edge company is involved in setting the standards of media networks with their protocol, **MediaLink. Mark Lacas**, president of Lone Wolf, will explain MediaLink at our April 7th meeting.

Lone Wolf has also taken the opportunity to support our group by paying postage for the newsletter! This takes some of the load off **Rane Corporation** who have been single-handedly supporting the printing and postage of the newsletter for over a year now. They have earned our deepest gratitude. (P.S. if you're in the market for signal processing gear, check Rane out...)

(While we're at it, let's also thank the **Art Institute of Seattle**, providers of video editing expertise and our meeting space.)

Publishing the newsletter gets to be pretty expensive considering there are over 380 members on the mailing list, and the page count is now 8 pages. I know many audio, video and computer technology companies read our newsletter, and if any of them would like the opportunity to support it, get in touch with me.

Adobe has provided a great program for user groups with newsltetters like ours. **Acrobat**, the multi-platform document viewing solution, has been offered to us at a reduced rate.

With Acrobat **Exchange** and **Distiller**, we can generate a *Portable Document Format (PDF)* file out of our newsletter. With Acrobat **Reader**, you can view the document on Mac's or PC's (Windows *or* DOS) without needing the same fonts or program that authored the document originally.

Adobe has offered the entire membership a free copy of Acrobat Reader (a $50.00 value). I will post the newsletter in PDF format online somewhere. This leaves us with a couple of questions I'd like you to think about. *1.* How do we distribute the Reader program to those of you that want it? *2.* Where should I post the PDF files? For our newsletter, the filesizes do get rather large, between 250K and 1Meg.

Anyone with creative solutions to these questions, get back to me, OK?

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COLLABORATION PAGE

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I'm a photographer who works digitally with large output — my current work is 10.5 feet by 11 feet. My greatest need is to find an affordable 4-color output for my digital files — I need large scale — the current project is using output up to 44" x 126" — and they're EXPENSIVE!

911 Welcomes you to our

Annual Membership Open House

Thursday, March 10
6:00- 8:30 PM

911 cordially welcomes one and all to our annual membership open house. Mingle with workshop instructors and 911 staff, meet other members, our board of trustees, and other industry professionals in a friendly, well-lit atmosphere. Give ussome feedback and tell us your stories!
Chips, dips, and libations a-plenty!
Live music, too!

The New Festival of Lesbian and Gay Film in NYC is looking for works for a cyberqueer/ sci-fi program. Does your short film or video fit the bill? The program will include sci/fi (a la "Flaming Ears") on traditional formats, including computer and other types of animation. For the first time the festival is looking to exhibit interactive media works (developed on CD-ROM, CD-I, laserdisc, Hypercard...). Anyone with interactive works, with news of works, or with ideas, information or advice on how to exhibit works, please contact Beth Stryker (bes7@columbia.edu). Works on tape, and prospecti of works should be sent to:

The New Festival of Lesbian and Gay Film
ATTN: Cyberqueer Program
462 Broadway, 510 NY NY 10013
phone:212 343 2707 fax: 212 343 0629

As the deadline for submissions has officially passed, tapes and information regarding works are needed as soon as possible, in order for us to make this program happen.

REACTING TO THE MACHINE

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during a museum tour in some remote city. Citizens will be able to inform themselves about political issues that concern them, and then communicate their opinions directly to their representatives.

Talk shows, phone ins, opinion polls, virtual communities. You talk back, but is anybody listening? Justice has to be seen to be done, and as long as justice is seemingly seen, true equity is irrelevant. The fight for social control is concealed. In Africa and Europe the class struggle is a given. (So is cynicism.) America is a land of freedom, individuality, self-determination and mythic community. Anybody can become President. Pressure is exerted by a plurality of pressure groups and lobbies, and the deaf giant hides behind the patchwork.

Television is just one of the technologies that will change as networks and computers converge with home appliances. Individual devices will improve both in ease of use and maintenance, but, more importantly, so will their ability to act (and interact) in concert. Homes will be populated by interactive TVs, portable display screens, personal digital assistants, cordless phones, smart appliances and even personal computers. The metaphor changes: from delivering information to a particular device, to accessing a pool of information or entertainment from any one of a number of different devices.

The information cyber-ocean. Some see it as a crystalline pool, swarming with brilliant facts, waiting to illuminate and enrich. I feel it more murky, a swampy quicksand of ambiguous and shifting forms, over a gravel of fool's gold. The treasures are covered in mud, and mine is a piece of driftwood. I'm looking for affect not a fact; knowledge, not information; insight not data.

The PC will remain the main interactive technology some years to come. Many companies are developing software products that make it easier, simple and more fun for individuals and families to organize, communicate and get projects done.

Interact, interact, oh yes we computer cadres interact, we fondle plastic and stare at gray glass screens all day. The whole of human experience conveyed in plastic and glass. "Tell us, how do you feel?"

The increased bandwidth of the new telecommunications infrastructure will also make transferring data between home and work much easier, increasing the amount and quality of work that can be done from home. A home oriented communications infrastructure also has less visible benefits, for example optimizing the ways in which homes consume energy. An integrated home energy management system could reduce peak time demand, monitor energy efficiency of home appliances and reduce consumption in unoccupied rooms.

The hearth, the center, the shrine. The fireplace and TV jostle in so many living rooms. Computers are coming too, burning bits. When a monitor is off, it's ash colored, cold. A fire generates more heat than light. TV purveys emotion, not enlightenment. Camp fires drew all into their circle for warmth and camaraderie. In the late 19th Century many middle class homes had wood stoves for heat in most inhabited rooms. Nowadays, kids have their own TVs and computers in their rooms. Does the screen warm your bones?

While interactive TV services will offer many benefits, not everybody will have equal access. Interactive services will be expensive at first, and early adopters will probably be members of the usual elites. However, two factors ameliorate the situation. First, the cost of the necessary hardware will fall rapidly as volumes increase and competition sets in. Second, consumers will be able to select the sophistication they can afford: you don't need a cellular phone to make a phone call.

TV used to be a shared ritual. Now, Roseanne is scattered around the schedule and channels in new shows, repeats and syndication. Saturday Night Live is so - but only in New York, first time around. When video on demand is a reality, anybody can watch any show at any time. Time and space lose some of their conventional meanings, or acquire new ones. We may be entering the era of the death of the clock, when frenetic CPU clock cycles obsolete themselves and each person can only depend on their own sense of time.

Computers are extremely flexible, and people rapidly become very demanding: they can see what is missing. The ability to offer huge amounts of power and flexibility is a great temptation for the developers. What is fun for the service developer may very well not be fun for the viewer, and developing useful services will require multi-skilled teams with a keen sense of users' true needs.

New technologies won't affect the commodification of art. Our society only works because we have agreed to commodify everything The simplest way to assign something's value is to see what somebody will pay for it (even, let's face it, the National Endowment for the Arts). The art market will find a way to assign and then extract the surplus value from any art practice. If the sixties couldn't stop them, the Nineties sure won't. Still, the nature of the valuable element will evolve. Just as our economy has moved from being based on goods to generating services, the physical art object will become less relevant. The focus will shift to intellectual property, and the trend embodied by the conceptual art movement will gather strength. (The mystique of the sacred object as the embodiment of the artist's spirit will always live on, though.)

There is an increasing trend in the USA for people to obtain entertainment and do transactions from home. There are many possible reasons for this, including increased

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concern about violent crime, economic pressures and dual career families. The increased ability of technology to accommodate these desires may accelerate the erosion of public places and insulate the privileged from the difficult realities that their fellow citizens face. However, as has been shown by experience with electronic mail and bulletin boards, people of all classes can use technology to empower themselves and make face-to-face interactions more meaningful. People like to meet face to face - many bulletin boards have a core of people that meet face to face as well as electronically - and it is likely that many services will have a local base.

Technology affects art in three (overlapping) ways : as subject matter (e.g. Futurism) , as medium (e.g. lithography), and as method of consumption (e.g. driving to Tacoma to see a show). As art's subject matter, advanced technology lags by decades. Artists generally are not very aware of emerging technologies and their impact, and can't afford them when they are. When they do concern themselves with it, their stances are often embarrassingly naive and ideological. Any period's advanced technology has little impact on the medium of making: it's still too visible as itself to submit to carrying the artist's meanings. Technology's greatest impact is on the ways people consume art. People were using photographs to consume art long before the practice became artistically accepted.

The protection of personal information and the prevention of intrusion is a key concern of consumers. It will be essential that encryption services are an integral part to the networks that emerge. The decentralization to service providers will offer some protection from unwarranted consolidation of information. It will also be important that consumers can make an informed choice about what personal information is released.

Interactivity is a mirage. It only gives the participant the semblance of control. You can only choose from the limited repertoire that the designer could conceive of, or afford. If you choose to step outside these limits the contract is broken and the illusion shatters. At least, though, here the limits are clear. The constraints of birth, personal and communal history, and limited will-power are much more insidious. As interactivity becomes richer, some of the limits will seem to disappear, even as they more accurately represent the "real" world.

The advent of interactive home appliances means that the machines we use will no longer necessarily be within an arm's reach. As home environments become more aware of a resident's location and identity, and take action accordingly (e.g. switching on lights as one enters a room), this situation is exacerbated. We are just beginning to research how people will deal with such a disembodied interface.

Making art with new technology is hard. The stuff is too powerful, still too much its own self. It signifies progress, choice, power, whatever meanings society and the advertisers ascribe to it. It is still too assertive for me to control. I'm the servant of the message. I am denied the illusion that I can impose my own intentions onto the medium. Making sublime poetry in the language of the invader is fearsome. Perhaps only the Irish have really managed it. (This is an excuse.)

26 February 1994

Pierre de Vries is a program manager for Future Home Technology in Microsoft's Advanced Consumer Technology Group. *He's tried particle physics, venture capital, sculpture and multi-media and still can't decide what he wants to do with his life.* The views expressed here are his personal opinions and do not necessarily reflect the views of his employer.

NEW MUSIC AND NEW TECHNOLOGY

The Computer joins the Symphony Orchestra

A world premiere performance uniting the latest in high technology with a traditional full symphony orchestra will take place on Friday March 4 and Saturday March 5, 8 PM, at UC Berkeley's Hertz Hall. Guy E. Garnett, a composer at UC Berkeley's Center for New Music and Audio Technologies (CNMAT) and a leader in the field of computer music technology, has composed a Concerto for Violin, Orchestra, and Electronic Conducting.

The conductor of the orchestra, Jung-Ho Pak, will lead the orchestra and violin soloist (Mari Kimura) with traditional conducting gestures that will be analyzed on the fly by a Macintosh computer and used to control playback tempo, dynamics, and other parameters of an electronic "score" stored on the Macintosh. This system leads to an astonishing degree of coordination between the orchestra, the violin soloist, and the electronics. Since the computer follows the

conductor's movements, traditional gestures can now be used to control new synthetic sounds in a flexible and expressive manner.

The Concerto was written in November and December of 1993 and the electronics were designed in January and February of 1994 at the CNMAT. It was written for Mari Kimura, a young violinist of growing international fame, and Jung-Ho Pak, the outstanding director of the University Orchestra.

Also on the program is a new work by Anthony DeRitis for orchestra and digital processing controlled by a Macintosh computer.

In addition, there will be a premiere by UC Professor John Thow, and a piece by the late Witold Lutoslawski.

For further information:
Call Guy E. Garnett,
Center for New Music and Audio Technologies, UC Berkeley,
phone: 510-643-9990 fax: 510-642-7918
email: guy@cnmat.berkeley.edu

Posted by Guy Garnett on the alt.arcom USENET news group

THE EMPTY SPACE BETWEEN THE NOTES

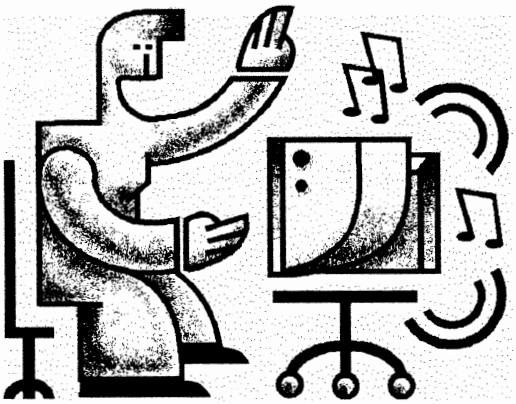
By Bob Moses

Last month's guest speaker, Hal Morris, presented some interesting issues concerning the legitimacy and aesthetic of electronic music. For those who did not attend the meeting, Hal showed off his new Peavey *"Personal Composition Center"* and all the amazing things he could do with it. He played us some of his compositions, and discussed how his new technology tools have empowered him and helped him grow artistically. This month, I would like to look at the other side of this issue — what's wrong with this new technology? What follows are my own personal feelings — I make no claims that are "true" or better than anyone else's.

Despite the numerous benefits, I do not believe that MIDI, or digital electronics in general, are the panacea to the arts world. Like all things, new technologies must be used with caution and in moderation. Before you accuse me of being a closed minded acoustic guy, please understand that I play no acoustic instruments and I make a very comfortable living designing and building digital audio and MIDI equipment. I have no bone to pick with technology in itself, but I do have a problem with the way some people use it.

A common criticism of electronic music is that it sounds mechanical, that it lacks emotion. Some people also think all electronic music sounds the same. Why? What is it about electronic music that robs it's soul?

Before I continue, I'd like to briefly summarize what's been happening in the scientific world for the past couple thousand years. Around 400 BC a guy named Democritus proposed the idea that the world is made of small, separate, indivisible, predictable, building blocks. Democritus, Newton, and many other scientists taught us for centuries that the world is a huge mechanical machine assembled from hard little pieces. This theory treated humans as unconnected observers, capable of controlling this big machine once they understood how it worked. But this theory was never able to explain or control everyday concepts as common as people's love for one another, or the aesthetic beauty of a flower. After dominating western thought for many centuries, this atomistic paradigm was disputed by Werner Heisenberg, Erwin Schroedinger, Albert Einstein, and others. Today, scientists understand that the world is one massive chaotic system — interrelated and unpredictable. At the subatomic level, solid material dissolves into wave-like patterns of probabilities in empty space. Human emotions and aesthetic judgments are patterns in this empty space.



So what does all this have to do with the value of electronic music? Well, all that really cool high-tech MIDI gear we swear by is a manifestation of our sciences. We treat music the same way ancient scientists treated the world: as nothing more than a bunch of little pieces glued together according to some well-understood formula. But, as the western scientific paradigm evolves to include chaos theory, holistic system models, and so on, perhaps musicians should take a closer look at the true nature of music. Is it the notes that we play that counts, or is it the empty space between (and inside) them? Where does music's soul lie?

I believe that a lot of electronic music sounds mechanical and unemotional because the people (or machines) that created it got caught up in the idea that music can be dissected, surgically corrected, and endowed with feeling by a computer. For hundreds of years, music expressed the interplay of a group of people. Today, music often expresses the interplay of a single person with a computer. The computer is given sovereign control over the "note data". It strips the music of it's "worthless" empty space and corrects the human's imperfections. After the electronic scalpel we are left with the same notes, in the same order, but the human spontaneity and "imperfections" that once "controlled" these little pieces have been replaced by the predictability and precision of a computer. Is it any wonder that such music sounds mechanical and lacks emotion?

In today's cut and paste world we are obsessed with more memory, more voices, more tracks, more bits, more dB, and so on. We can sit alone in our bedroom and in the matter of a couple hours create an entire artwork from concept to plastic reality. In tomorrow's multimedia world, we'll be able to replace other artists too. Once virtual reality becomes reality, we'll be able to replace everyone on the planet—indeed the planet itself, with computer simulations. Is this progress? Where is the rich, complex, unpredictable, interplay of human emotions in that formula? How far will we go before we realize that it's not all this technological hardware we've collected that counts, but the empty space that gives soul to ourselves and our art?

I don't believe that electronic music is necessarily devoid of human value. If an artist uses tools properly, s/he can create great works with them. Below are some ideas that I beg everyone to consider:

- Use technology to assist you—not replace you (or your friends). Remember: musicians created amazing art for hundreds of years with instruments that had one voice, no memory, no automation, no tracks, no bits, and so on. It's not the tools that count, it's how you use them. Explore new sonic territory with your electronic tools.
- If there is a part in your music that could be played by a warm living creature, please consider using the real thing rather than a fake. Honor the relationships, spontaneity, and interplay between you and the other being, and the resulting aesthetic.
- Beware of the quantization beast! Your timing imperfections are beautiful.
- Play your drum machine live, all the way through a song. If you feel this is unnecessary, takes too much time, you can't do it without making mistakes, etc., then you've missed (and proven) the point of this essay!

GARAGE VIRTUUAL REALITY – BOOK INFO

Linda Jacobson ha s great new book, **Garage Virtual Reality.** *It's the first book that explores the grassroots movement of low-end, hack-your-own VR. It tells everything you need to know to launch yourself into virtual worlds using your PC, Macintosh, or Amiga, and it even includes a DOS-flavor floppy of rudimentary VR software. Interspersed throughout the book are "tour guide" profiles about pioneering hackers who have helped put garage VR on the map—some (if not all) of their names should be familiar to net denizens!*

Here is the introduction to the book:

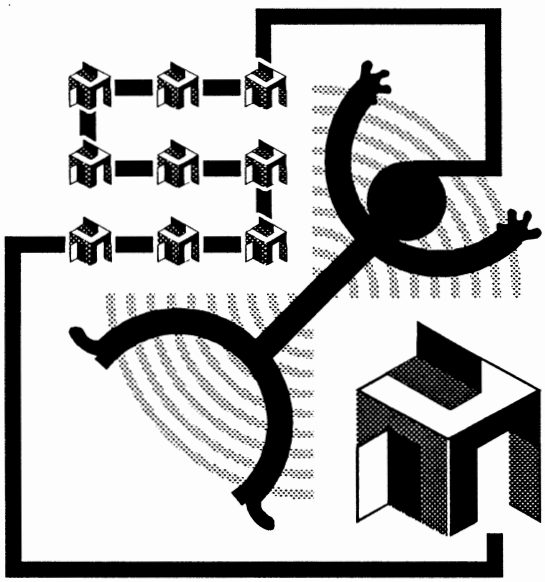
Welcome to the world of "garage virtual reality." This is the first book that explores the grassroots movement inspired by high-tech research and development efforts to improve the ways people interact with computers. Garage virtual reality enthusiasts know that we can't solve today's problems with tomorrow's technology, so they're taking virtual reality out of the lab and into the home.

"Virtual reality" (VR) is a trendy and slippery phrase, wide open to interpretation. This book's definition of virtual reality is one with which VR industry professionals agree:

Virtual reality refers to the experience of interacting with a computer system that presents a "virtual world" of simulated sights and sounds. The virtual world is created from three dimensional graphics and audio elements. The virtual world is not prerecorded; it is generated on-the-fly by the computer. You can navigate and interact with the virtual world and its contents at will. Based on your actions-where you look, what direction you move, what object you manipulate-the image display responds accordingly. The most effective VR experiences place you in such intimate proximity with the data that you easily disregard the real world.

Garage VR tells you everything you need to know to launch yourself into virtual worlds with your IBM PC, Apple Macintosh, or Commodore Amiga. Here's the plan:

Chapter 1, "The Search for 'Tech-Knowledge,'" takes a look at the time-honored tradition of creating technological innovations at home, in the garage, workshop, or basement. Chapter 2, "Way Back When," provides a brief historical overview of virtual reality and cyberspace. It also. lists books and magazines for readers interested in learning more about high-end VR. Chapter 3, "VR Comes in Several Styles," describes the categories of virtual-worlds technologies, or "levels" of VR: immersive VR, simulator VR, projection VR, desktop VR, and garage VR. Chapter 4, "The Engine: Computer Platforms," discusses personal computers in terms of their capabilities to support garage VR exploration.



Chapter 5, "The Windshield: Visual Displays," explores the relatively low-cost 2D and 3D visual output devices that let you display and view virtual worlds. Chapter 6, "The Cockpit: Input Devices," investigates the usual and unusual low-cost input devices that let you control your interactions with virtual worlds. Chapter 7, "The Fuel: Software for Garage VR," describes the software programs, both commercial and freeware, that you create, explore, and interact with garage VR. It also covers basic concepts of 3D modeling, rendering, stereoscopic imagery, and virtual world-building. Chapter 8, "Hacking for the Trip," helps you set up your garage VR assembly line. This is the "how-to" section for those who want to build interface circuits, head-mounted displays, or stereoscopic viewers; engineer a "virtual handshake"; or analyze garage VR software code.

Chapter 9, "Carpooling: Traveling with Friends on the Data Highways," explains ways to radically enrich your garage VR efforts with the help of a modem, phone line, and telecommunications software. Chapter 10, "Places to Go," suggests several professional and personal uses for your garage VR system. Chapter 11, "The Road Ahead: The Future of Garage VR," examines the future of garage VR. Virtual reality is a relatively new technology no one can accurately predict its long-term future or its precise economic and cultural significance. Consider another previously newfangled technology: photography. Several decades passed before people developed a full appreciation of its enormous impact.

Appendix A is a reprint of a CyberEdge Journal interview with a teenage garage VR enthusiast. Appendix B explains how to download files and programs from remote computer systems on the Internet. Appendix C lists names and addresses of vendors of low-cost VR products. Appendix D lists information resources: reading materials and VR clubs, organizations, and producers of relevant conferences. Appendix E is the garage VR glossary. Appendix F covers the contents of your garage VR "fuel kit" -the disk provided with this book.

Interspersed throughout the book are tour guide profiles that introduce you to some warm-hearted pioneers who have helped put garage VR on the map. All of these tour guides have made significant contributions to the field and eagerly share ideas and resources with others who want to travel the same unpaved paths. All the tour guides possess sharp minds, strong opinions, remarkable energy, old-fashioned *chutzpah,* and the desire to challenge the techno status quo. Like garage VR, all the tour guides are young (at heart, if not by the calendar). Without exception, they're male. I hope this book inspires women to join the "Garage VR Explorers' Club."

Virtual-world builders intend to create and present experiences that occur in reality or only in the imagination, representing ideas that can be manipulated in ways not possible in the real world.

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This book attempts to illustrate the experience of building virtual worlds, thereby motivating novices to build some themselves. If more of us bring VR technologies into our homes, we can help create a demand for the hardware and software. In turn, demand can help lower the price of high-tech tools. Then, individuals working on their own can concentrate more on creativity than on the inherent technological limitations of low-end VR.

I also hope this book encourages a sense of community among the geographically dispersed and that it reaches people who feel lonely on their virtual journeys. As garage VR pioneer Bernie Roehl says, "When you're sitting in front of a computer screen for long hours, it's so easy to think, 'I'm the only in the world doing something like this.' I find it really inspiring to talk to people who are interested in VR, because it reminds me that I'm not alone."

You're not alone!

Linda Jacobson
lindaj@well.sf.ca.us
San Francisco, October 1993

Title: GARAGE VIRTUAL REALITY: The Affordable Way to Explore Virtual Worlds

Author: Linda Jacobson

Publisher: Sams/Prentice Hall Computer Books
ISBN #0-672-30270-5

Price: US$29.95 (Canada$37.95)

420 pages, 7-3/8" x 9-1/8", 16-page color insert, 3.5" HD floppy

Mr. Einar's Neighborhood

by Einar Ask

Hello my Cyber friends!

It's been about four months since I disappeared into the Submarine, and so much has changed. I am happy to hear that the group has been growing and I am excited about the collaborations that you have all been getting involved with. There are probably new members who don't know me, so to them I say hi and warn them that I am not a professional artist nor engineer nor technologist. I have a pretty standard day job, and have a passion for music at night (when the kids are asleep!).

The last time I was here in print, I wrote about getting my solo electronic music act out of the basement and into those wonderful downtown Seattle clubs. I wrote about building drum triggers and and alternative MIDI controllers using **MIDItools** from **Bob Moses** and **Steve Macatee.**

I still build instruments, and I still play live. The latest instuments are called *"Speaking Orbs"*. I salvaged some 1970's style track lighting which consisted of bowling ball sized-chromed steel balls in black U shaped housings. I stripped the electical connections out of the lights, leaving each ball with a small hole in the back side opposite the larger, fist sized opening for the light. Into the holes I siliconed photo-resistors. The interior of each ball was already black, which turned out to be helpful in keeping stray light from activating my switches. I built twelve of these orbs. In a live show they are placed around the stage and in the audience. Flashlights are made available to the audience. When a light shines directly into an orb it triggers a note on my sampler. Currently I like to use spoken words in my sampler, so the name "Speaking Orb" was given to these devices. I have to say they are the "coolest" looking things I've come up with.

I have recently gotten back in touch with two friends from years ago who

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Demystifying the New Media
The Future of Multimedia Technology
with Michael Korolenko

At 911 Media Arts Center
Saturday, March 12
10 AM — 4 PM

This one day workshop will provide a clear understanding of emerging and future media technologies including interactive multimedia and virtual reality. This workshop will give students a working knowledge of the various applications of new digital technologies, students will also find out how to prepare themselves for working wilt the new technologies — something every media professional needs to know. Film vs. Video will also be discussed; their differences and their merging. Discussion, demonstrations and a variety of video clips will cover new video production equipment, the merging if computer and video technology, multimedia and the cyber-universal future. Come and see why the future isn't what it used to be.

Michael Korolenko is a published author and an award-winning filmmaker whose films have aired nationally on Showtime, PBS, and The Discovery Channel. He has also written for a variety of interactive multimedia projects including one of the first used by IBM to teach junior high school students, Korolenko currently teaches courses in *The Future of Telecommunications, The Technology of Persuasions, The Art of the Documentary,* and *Scripting for Electronic Multi-Media* at Bellevue Community College in the Media Communications and technology Department.

Call 911 at (206) 682-6552 for information on 911 membership and workshop pricing.

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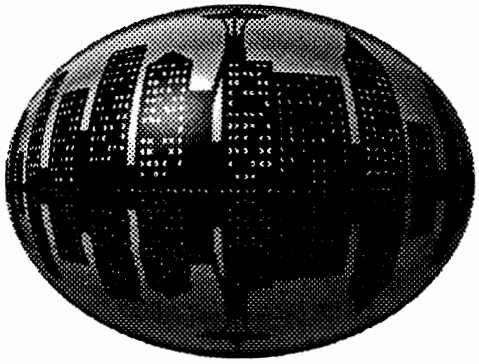
make music in the "experimental" field. **Eric Muhs** performs both solo and under the name **Metal Men** with **John Hawkley**. Eric builds the most interesting instruments I have ever seen. He uses electic motors and parts found in thrift shops and dumpsters to make machines that take your breath away. Eric has a CD out called *"NOTOCHORD"*. It is fascinating. His music is made through the use of tape loops. **Rob Angus** has recently returned to Seattle. He performs a thought provoking kind of music that really can't be categorized. Using harsh sounds to make rhythm, he layers softer, long tones on top. He has a CD out with **Jeff Greinke** called *"Crossing Ngoli"* that is available at several shops around town. Listen carefully to both of these recordings.

I will be doing a show with these fellows this week. To quote the advertisement: **"On Friday, March 4th, in a loft which you can enter through Cafe Capella, located at the corner of Eastlake & Republican, you may have the chance to observe: Rob Angus, Metal Men, The Same, Richter Scale, and Project W."** It should be a very long and engaging evening. Call me at 481-3483 if you need more info.

The **NEC, (Northwest Elektro-Industrial Coalition)** has been doing well. We are a smaller group than Northwest CyberArtists, so the workload for each member is a bit higher to keep things



running, but finally we are receiving some press locally and nationally. It helps us gain access to some of the clubs in Seattle that prefer to have mainstream, traditional bands. Most of the NEC bands are electronic and industrial, (you guessed that already, didn't you?) but no two bands sound alike. We have different approaches and certainly different artistic goals.

The NEC has been great for me because I have a lot in common with the other guys when it comes to the equipment we use. I could B.S. about keyboards and the like all night. But I miss meeting people who have talents and equipment from the other "cyber" fields. If you have ideas about multimedia electronic productions, any one of the NEC bands might be looking for a collaborator. We know music, but computer generated visuals, etc. we're always wanting to learn about. Like all the other "art" bands around, we can promise NO MONEY. Exposure, a few laughs and comaradarie is all we can deliver.

If anyone is interested in this local industrial scene, you can buy the two NEC compilation tapes at selected Seattle shops, or get on the mailing list by contacting the NEC at 539 Queene Anne Ave. N. Box 131, Seattle, WA 98109 (for newsletters and catalog) or Call the NEC hotline at (206) 233-8420 for show information.

By the way, I got my CompuServe magazine today and found this publication listed with Steve's name under the category of "Cyber things you can download." Check it out!

See ya, Einar

Northwest CyberArtists
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ADDRESS CORRECTION REQUESTED

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