Executives of Information

by Craig Rosenberg

Time is limited. There is not enough time to learn about and stay informed of the different interesting topics within science, technology and the arts. It is nearly impossible to learn all of the details about all of the topics that we might be interested in because, for most of us, there are far more interesting topics to learn about than we have time to learn about them. As the knowledge base of science continues to compile valuable information about many diverse fields, the problem of staying abreast of advances in technology will only be exacerbated. This is a growing problem that must be dealt with or else we may suffer from information ignorance.

Scanning For Breadth

First, it is very important to get a good breadth of information. Try to collect information from many varied yet carefully chosen sources. These sources will serve as your information filters. Because we only have a finite amount of time to invest in information gathering, it is important that when we are in this information gathering phase we are as productive as possible. Carefully choosing your sources of information when information browsing is an important part of information filtering.

One goal when information browsing, should be to acquire a wide breadth of information about many different and diverse topics that are potentially relevant to your personal and professional interests. Periodicals and magazines can serve as an excellent source when in the general information browsing phase. Periodicals are often highly specialized and serve to inform the reader of specific or diverse topics within a general domain. Publications range from being highly focused to extremely general. Publications are excellent for keeping one informed of new technologies and applications across technologies. When I read publications for information breadth, I am searching for the essence of the information that is being presented. The essence of the information is the central ideas of the information being conveyed and not the specific details of the given implementation. In this way I can retain the information in a form that is more malleable and can be applied across several different application domains.

Scanning For Depth

It is also possible to get good depth of information from the same information sources that you use to acquire breadth information. Within your chosen specialties, you should acquire information and learn from as many possible sources as possible including books, periodicals, computer networks, personal experiments, and professional correspondences. When sharing information with others who are not as knowledgeable within an area, it is important to present an overview of the information. I like to think of this concept as an executive summary of the information being presented. Try to present the overall technology, application domains, before diving into the specific details relating to implementation.

Working in projects is a good way to expand ones knowledge. Cross disciplinary studies require detailed knowledge within several different domains. It is nearly impossible to become an expert in several domains because of the sheer volume of information that must be digested within any given field. To obtain expertise across several application domains, experts within the various application domains often collaborate in groups. Information sharing takes place when collaborating on a project. In this situation, all of the members of the team have the opportunity to learn. There is no time for each person to become an expert within another persons field so the most salient and critical information necessary for the project's completion is presented and shared. In this setting, individuals have the chance to learn both theory and practice and can become better informed in areas that they had little knowledge of previously.

Evolve or Cry

by Einar Ask

Hi! This month I went to a show at the "Ditto" that one of our members put on with his band "Shallow Head". I was so impressed that I mention it here. I had a wonderful time and felt inspired to get off my duff and do things. Thanks guys. So often I get wrapped up in what I'm tinkering with in my basement that I forget how much fun it can be to just get up and play. Their approach to blending the sequences and live music was basic, simple, obvious, and something that I wouldn't have thought would sound so clean, full and LIVE!!! Now when I talk to Paul, I picture him in front of his stack, doing his rock star thing, not sitting in the studio, slaving over a mixer or a sequencer.

The main reason I went was because I had the luxury of getting their demo tape in advance, and after listening to it about 20 times, I was excited to see them pull off the live gig.

Last month we got to see Craig Rosenberg's computer animation which impressed me very much as well. From now on when I hear him say he does computer animation I will have these flowing surrealistic images to remember and to associate with his name and face.

Of course some of the people at our meetings actually have their work released and you can go to the store and buy it to check them out. Sky Cries Mary, for example, have CDs out that you can pick up just about anywhere.

I've been thinking, wouldn't it be nice if we all had a sample of each other's talents? I realize that we have a Tech Check at the beginning of the meeting each month, but I am timid when it comes to talking about myself and my music. Shyness aside, I have a hell of a time describing what I do. I assume that many of us are busy with something that is difficult to describe in a few seconds to a group of people. I also realize that at this point we are probably too large a group to play tapes of our music at the end of each meeting — which was a favorite part for me.

I would like to see us circulate samples of our own work so that we can all get familiar with what everyone is doing

with this technology that we keep talking about. For starters, I went to Costco and bought a dozen cheap tapes onto which I'll throw a couple of pieces, and I will have them at the next meeting for anyone who wants to take one home and listen to a few seconds — or the whole thing if you're a brave sort! I bought cheap tape, because I realize that I may not get them back, and that's OK with me.
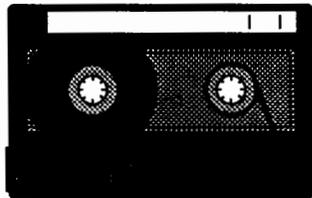
I would like to hear anything that anyone is doing, especially at home where I can just sit back and listen, so I hope someone would like to just swap tapes with me. Look for me during the *Networking* time if you're interested.

Since we are *CYBER*artists, there are those in our midst who don't do work that can be swapped on an audio tape. If you are a video sort, maybe we can borrow your VHS tapes? Maybe we can buy them? If you program cool things for computers, maybe you have disks you would like to have people check out. Photographers? Poets? I would think that it might be nice to marry together people whose artistic directions might be similar, but whose mediums are different. It would make networking easier, more fun and personal.

So, see you at the March meeting!

P.S. In April I'm going to bring in as much portable MIDI equipment as I can with the intention of demonstrating the wonders of being a modern musician on the go. If you have or have access to such things, join the party! Yamaha's QY20 would be a great score for that night, if anyone has one by that time. I probably won't. If you would like to show off any other devices that you walk around with while doing your art, bring it in. CZ101? Rockman? Zoom? Video camera? 4-track recorder? Midi controllers? Pignose/portable amps? Effects? Notebook computer? DAT recorder?

Please talk to me if you think you have an idea!

by John Hokenson

I find myself really taking to heart the words of Craig Rosenberg, our guest contributor this month. Alvin Toffler spoke about what he called "future shock"—too much change at any given time causes the human mind (and spirit) to rebel.

Similarly, the effect of massive amounts of information that we are deluged with cause what I like to call *information overload*. Software developers and writers are now beginning to recognize this phenomena and are starting to develop programs like *Tapcis* and *Ozcis*—programs with the ability to filter information.

An example—using *Tapcis*, you can predefine your areas of interest before ever logging onto CompuServe. *You* decide which forums are of interest. *You* decide which news items to download. All this is done *before you ever incur any charges*. Once the filters are set, the software will direct your modem to log-on, download your E-mail, extract items of interest from the forums you previously selected, gather other information as directed—and log-off the system.

Such programs are not limited to CompuServe. Automated information filters are becoming available for most of the major BBS systems. You will not see this development stop with BBS information retrieval. It is expected that soon you will be able to take a more sophisticated version of this sort of program and enter your tastes and interests. This electronic filter will reach out to the electronic news services and information systems and automatically compile an electronic newspaper or magazine containing *only the articles and news items of interest to you*.

This has the immediate advantage of pre-screening information. Craig spoke of using periodicals and magazines to keep up with technology. By judicious application of these electronic information filters it will be possible to reduce the inevitable information overload inherent in dealing with large amounts of material.

It seems that as with everything else, technology must go through a period of evolution. This process can be divided into phases. The first phase is the invention or development of the concept. Implementation tends to be crude, and execution is usually less than perfect. Witness the CP/M™ days of the personal computer.

Processors were slow, available memory (RAM) was minimal—a machine with 16kB of memory was a powerhouse. Software developers had to figure out how to squeeze their programs into *very* small packages. Machine-code programming is remembered as a lost, dark art from those days. Then came along a little chip by Intel called the 8086 and a kid named Bill Gates. This brought us to phase two—increasing complexity and the improved ability to perform useful tasks without the need for excruciating work-arounds to the hardware limitations.

We are now entering phase three of the personal computer evolution. This is where the complexity is rising but the useful application programs tend to mask the increases. Where the personal computer will finally come into its own will be phase four.

Phase four will herald the birth of the "information appliance." Advancements in hardware integration will allow significant reductions in component counts, increased computing power and improved reliability. Along with these improvements will be the birth of truly user-friendly gui-based software—the general public prefers pictures to the ubiquitous $C:\>$ prompt. Apple Computer proved that.

Only when the personal computer is integrated seamlessly into every household and is considered as necessary as the toaster, microwave oven and VCR will we have truly entered the information age and will the evolutionary process be complete.

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On a more immediate note, I fully support Einar Ask's proposal to swap tapes, videos and interactive programs. Only by experiencing what others are doing can we truly appreciate our own efforts. As your erstwhile editor, I urge all of you to share with the other members your efforts and interests in music, video, interactive computing, live performance....?

Northwest CyberArtists is growing by leaps and bounds. An estimated fifty+ people showed up at the last meeting, with seventy five expected at the March meeting. Consequently, the time constraints that are placed on us by the numbers involved *require* that we explore alternative methodologies for reaching our peers. The playing of member tapes from *all* members at *every* meeting is just not practical as the size of our organization continues to grow.

What better forum to let others know about what you're working on than to give them the opportunity to experience that work *without* the constraints of the meeting?

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As part of our duties as CyberArtists, we need to be *accessible* to others. Having said that, I encourage you to drop us comments, ideas, articles, information bytes, et cetera. The voice, fax, and E-mail addresses are shown in the masthead.

If your article or letter is more than a few paragraphs, I would encourage you to leave it for me as E-mail at my address. This will reduce the possibility of errors generated by retyping. While I try to proofread the material as carefully as possible, some things still manage to slip by (I know, it's a great disappointment to all of you to learn your editor is not perfect).

In conclusion, Einar Ask and I have been kicking around the idea of putting together a contact list of the members with such things as voice and fax numbers, E-mail addresses and specific interest areas. I welcome your input regarding this project. Is this something we want to do? What do *you* think?

A Welcome To Wings That Work...

by Steve Turnidge

Embrace the future,
and it will greet you with open arms.

Embrace the past,
and it will die in your arms.

Embrace the present,
and all things are possible.

In a conversation with Ray Miller, a Digital Audio Engineer, the topic of limitations in current DSP (Digital Signal Processing) Technology came up. He had just completed a linear phase equalizer in software. We were listening to some techno music at the time, heavily laden with analog sounds.

Since Ray and I cut our electronic teeth on these late 70's pre-MIDI analog synths, we remarked on the resurgence of them, and how current DSP technology cannot easily reproduce these sounds. I asked him where the limitations were.

He replied that with so many things to do in so short a time anything really complex is difficult to achieve. This could, however, be overcome by increased processor speed. So, I asked him to project toward the time when we have optical, biological or molecular processors, and speed was no longer the issue.

He said that even now we do nothing really new, the basic algorithms have been around since the 50's and 60's. Programs ran on mainframes, not in real time, programmed with punch cards. The main difference in the field is that we can now run those programs in real time. It turns out these original pioneers in the DSP field were programming for the 90's.

Why don't we program for the 20's?

In computer years the equivalent time since the 60's is about 7.5 years. So, we should envision the applications that will run on the equipment we will have in the year 2000 and build the equivalent of non-real time applications now. In this way we have a jump on technology.

Since the requirements for these jumps occur more frequently as future shock catches up to us, it will be necessary to engage in a perpetual jump.

Another description of a perpetual jump is "flying."

As the future comes and meets us, and the winds of change rise, our sense of security and stability has to be transferred from trust in unchanging static things to trust in the strength of our wings.

We will then welcome the winds of change and glide upon their currents. When we see friends and family fearing the future, we can fly to them and describe the awesome landscapes presented by what we see. We can describe terrains accessible by a short flight of imagination. Some of these people will be holding on to the boulders and trees they have grown up and become comfortable with. When presented with the possibilities we see, respond with "You've got to be crazy! I can hardly hold on as it is, and you want me to let go to be blown somewhere I've never seen?"

What is the sound of one mind blowing?

Northwest CyberArtists