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## Electronic Property

by Daniel Geer

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The old advice about never discussing religion or politics at family gatherings notwithstanding, it is presumably unarguable that the percentage of the world's valuable things that are electronic in form is increasing. The "market share" of electronic goods is rising. Taking these electronic goods as a form of wealth, we here are some mix of creators, custodians, shepherds and guards. Those of us specifically in security are also professional paranoids.

USENIX repeat customers, i.e., USENIX members, tend to be in favor of sharing information. Indeed, the old mission slogan for USENIX, "Moving information from where it is to where it isn't" remains in full force even if it is more commonly practiced than recited (the sign of a powerful idea, as ever). To use a food analogy, USENIX lays on one of the best tables of information in the business. From that, we derive our ability to do it again. And again.

USENIX as an organization has a voice, and just like an opera singer, our voice needs to be used just enough to keep it powerful but not too much. We are asked, more often than you might think, to support this or that cause with our (your) voice and with our (your) money. I've spoken gently in these pages before about the use of (your) money and look forward to the day I can debate the issue of non-program expenditures of pro-

gram-derived funds at full vigor and without regard to the diplomacy my office requires. Today, however, I want to speak about the use of our voice.

As you doubtless know, USENIX is by the (US) tax code a so-called "501(c)3" organization incorporated in the State of Delaware. Such an organization is not only non-profit and tax exempt in and of itself, but gifts to it are tax deductible to their donor. Such a designation is non-trivial to get but trivial to lose – just stop being non-profit, stop playing by the myriad rules for non-profits, or use tax exempt monies for purposes that are officially forbidden. Such forbidden uses include lobbying for legislation, endorsing candidates for public office, advocating positions that are unrelated to the formal mission of the organization be it a charitable organization, an educational organization, or any of the other specific sub-species of the "501(c)3" genus.

In the matter of information sharing, we (USENIX) try very hard to make sure that the information that we share is with the permission of those who own it. Note that I say "own" as information is as much a valuable good and subject to ownership as a pair of shoes, a movie ticket, or a pint of Guinness. There is a widespread, anthropomorphic, pseudo-moralistic argument that "information wants to be free." Perhaps, but in that sense fire wants to burn, rain wants to fall, and entropy wants to work itself out of a job.

No, "information wants to be free" is a falsity but it is, and with abundant evidence, more than true that in the electronic sphere the idea of property takes on a whole new set of axioms that, in many ways, simply confound all our societal traditions and taboos. If, on a bad day, I inadvertently leave my back door open, that is not a license for you to pee in my toilet, empty my refrigerator, or install a wireless web cam. Even

### USENIX MEMBER BENEFITS

As a member of the USENIX Association, you receive the following benefits:

FREE SUBSCRIPTION TO *;login:*, the Association's magazine, published eight times a year, featuring technical articles, system administration articles, tips and techniques, practical columns on security, Tcl, Perl, Java, and operating systems, book and software reviews, summaries of sessions at USENIX conferences, and reports on various standards activities.

ACCESS TO *;login:* online from October 1997 to last month <http://www.usenix.org/publications/login/login.html>.

ACCESS TO PAPERS from the USENIX Conferences online starting with 1993 <http://www.usenix.org/publications/library/index.html>.

THE RIGHT TO VOTE on matters affecting the Association, its bylaws, election of its directors and officers.

OPTIONAL MEMBERSHIP in SAGE, the System Administrators Guild.

DISCOUNTS on registration fees for all USENIX conferences.

DISCOUNTS on the purchase of proceedings and CD-ROMS from USENIX conferences.

SPECIAL DISCOUNTS on a variety of products, books, software, and periodicals. See <http://www.usenix.org/membership/specialdisc.html> for details.

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having burglar tools is a crime in most jurisdictions where there is anything worth stealing. How does this apply in the electronic sphere?

The idea of property that is most at issue is “exclusion,” namely that if I have something you don’t have it whereas if you liberate it from my dining room table you then have it whereas I no longer do. An MP3 of a popular tune is arguably like that, modulo a tendentious reading of contract and license, but certainly my private correspondence is something that you have no right to even if I fail to encrypt it to modern standards. The fact that an electronic property can be copied at virtually zero cost and yet with no exclusion to its holder is what makes this space hard.

USENIX did, when asked, take a stand on the publication of the Felten, et al., paper. As the entity with standing and with the authors credibly willing and able to share their information with our members, we did what we did. We did not, when asked, take a stand on the matter of Mr. Sklyarov. We will, doubtless, be asked to take positions on who owns what more and more since absent (God forbid) world government, there will always be jurisdictional diversity. If you haven’t looked, the quantity of legislation filed on the issue of electronic ownership and affronts thereto is rising steeply. Law enforcement agencies at all levels are setting up electronic crimes task forces. Threat models now inform insurance rate setting and insurers will be adding a significant digit of precision to their estimates every time they can. My own business life (security consulting) is fundamentally built on maximizing electronic property’s value by minimizing its theft risk.

James Madison, in the Federalist papers, said that for democracy to survive it must avoid stable factions capable of imposing the tyranny of the majority.

He said that the surest way to unstable factions is a differential ability to acquire property. As the percentage of the world’s wealth that is information in electronic form grows, democracy will be front and center on protecting that property, or it will wither into tribalism. Lead, follow, or get out of the way?

The next time you hear that information wants to be free, or that some clever reverse-engineer has beaten some big, slow moving institution, think twice. Be careful what you wish for. The rabble’s call to crush all forms of digital rights management in gladiatorial combat does not bode well for privacy because if information wants to be free, I’d like a copy of your genome by return mail.

## Obituary: Jim Ellis

Our community recently lost one of its luminaries: Jim Ellis. Both Danny Smith and Jim Duncan share some words about his passing.

**Danny Smith**  
*danny.smith@sun.com*

I worked with Jim Ellis for the last eight years in the FIRST community. Jim and I often exchanged technical thoughts and ideas on security problems that were current at the time, with the aim of providing solutions for people to limit the damage.

Jim and I performed a joint study to examine the potential threat of a multi-platform UNIX virus. We produced such startling results that we destroyed all of the material and ceased pursuing the examination. The risk of harm if those ideas leaked was just too great. Jim had great ideas! I am glad he worked on the defense side of the equation.

Jim’s illness would wear him down. So he changed tactics: he rested when he needed rest, and he worked when he was able to work. He refused to let this ill-

ness stop him from doing the things he loved to do. He continued working full time until only shortly before he passed away. Even up to that point, he was producing excellent results and was heavily engaged in many projects. So successful was he, that many people either did not realize that he was ill at all, or did not realize the depth of his illness. His death came as a shock to many people within Sun as they were “only working with him just recently!”

Jim genuinely cared about people. He went out of his way to help anyone he could, and he never burdened people with his problems. Even as a manager, he would say, “I’ll give you an update on how things are going, but you don’t need to worry about this.” He had an amazing ability to effect changes in projects without anyone losing credibility — he could engineer win-win situations in everything he did.

If I had a team of Jim Ellises, we could do amazing things. But, alas, there was only one, and he now leaves behind a legacy of what we should be doing. His courage, skills, and compassion were a true inspiration to us all, and he will be missed for a very long time.

**Jim Duncan**  
*jnduncan@cisco.com*

Jim was the consummate scientist *and* gentleperson. There are others like him both in USENIX and the network security communities, but we need more.

At his funeral, as different folks talked about Jim (or “Jamie” as he was known to his family), it became obvious that his style carried over into lots of other things in his life. He and Carolyn were active in the home schooling movement, and he had the same profound yet subtle impact on the folks he met there. The same was true of their work with the League of Women Voters, and also with his family and friends, and his religion. Much of his extended family really

didn't know about the details of his professional life, and they asked us geek types to fill them in with stories.

Through all of this, Carolyn and others insist that he wasn't afraid to die, and I believe it. I'm sure he wanted to find out all about it, and that attitude affected everybody around him. At the close of the church service, the minister announced that since the sky had cleared up again, we were all invited outside for the interment in the church cemetery. In true Pennsylvania fashion, the clouds abruptly opened up as the pallbearers laid down his casket, and we were all drenched. In cutting short his remarks at the graveside, the minister said that if he could, Jim would be explaining at that very moment the meteorological conditions that had caused the rain to fall.

## Report from the USENIX Board of Directors

by Gale Berkowitz  
and Ellie Young

The following is a summary of some of the actions taken by the USENIX Board of Directors between January and August 2001.

The Board voted to allocate \$50,000 for 2001, 2002, and 2003 to the Electronic Frontier Foundation (EFF) for legal costs associated with protecting copyright and fair use rights for DMCA legal cases. USENIX Board member John Gilmore and USENIX Executive Director Ellie Young were appointed the representatives of USENIX on the Felten, et al. lawsuit against the RIAA, et al. The Board also passed a resolution that USENIX will indemnify the Program Committee of the USENIX Security

Symposium from any legal action that may be brought because of their decision to publish "Reading Between the Lines: Lessons from the SDMI Challenge".

The Board voted to allocate up to \$21,000 to conduct a virtual classroom pilot project. The pilot project will assess whether or not the technology is sufficient, and gauge interest in the instructional modality. Proposals will also be sought for Web-based training and university program modules.

The Board voted to allocate \$55,000 to the Software Patent Institute (SPI). These funds will be used for cleaning, formatting, and loading documents during 2001.

The Board voted to allocate \$10,000 to the Richard Tapia Celebration of Minorities in Computing Symposium to be held October 18-20, 2001 in Houston. The funds are to be used to support students to attend the event.

The Board voted to allocate \$5,000 to the Middleware 2001 Conference to be used for funding for students to attend the event.

### BYLAWS

A bylaws committee was constituted to review the USENIX bylaws and policies. The committee is comprised of Andrew Hume and John Gilmore from the USENIX Board of Directors, Attorney Dan Appelman, and Jane-Ellen Long from the USENIX staff.

### NOMINATING COMMITTEE

Andrew Hume was voted to be Chair of the Nominating Committee for the USENIX Board of Directors.

### MEMBERSHIP

Two special membership categories have been formed, one for retired persons, and another for persons with special circumstances that make the regular mem-

bership rate prohibitive. Membership fees for each of these categories is \$50 per year.

### LISA 2001 CONFERENCE REGISTRATION FEES

Conference registration fees for LISA 2001 will be increased by \$15 to cover the costs of providing all registered attendees a copy of the forthcoming book *Selected Papers in System Administration* edited by Eric Anderson, Mark Burgess, and Alva Couch. The Board also voted to approve a \$50.00 increase for both tutorial fees and technical session fees for those who do not use the Web to register for the conference.

### NEXT MEETING

The next meeting is scheduled to coincide with the Annual Linux Showcase in Oakland, CA, on Wednesday, November 7, 2001.

## 2002 USENIX Nominating Committee

by **Andrew Hume**

Chair, Nominating Committee

The biennial elections of USENIX's Board of Directors will be held in the Spring of 2002.

Newly elected directors will take office at the conclusion of the first regularly scheduled meeting following the election, or on July 1st, 2002, whichever comes earlier.

There are eight board positions:

President, Vice President, Treasurer, Secretary, and four Directors at Large.

The new Board is normally a combination of current Board members and people new to the Board.

The vibrant health of USENIX and the technical strength of its offerings stems substantially from the vigor of its Board. Accordingly, there is a Nominating Committee whose charter is to present a strong slate of candidates for the election. (Candidates may also self nominate.) We are soliciting suggestions for nominees who are enthusiastic, energetic, responsible, and able to donate an appreciable amount of time to USENIX. Warning: this is a working Board, and not a resume stuffer; while not onerous, there is work to be done and failure to deliver will not only reflect poorly on the individual, but also negatively impact USENIX as a whole.

Primarily, candidates should have a strong interest in USENIX and its activities. Vision, passion, and the ability to work and play well with others are necessary. A sense of politics and management experience are increasingly

important assets. However, the paramount requirement is the desire to make a difference and achieve something.

Please send suggestions for nominees (you can suggest yourself) by October 29 to: [nominate@usenix.org](mailto:nominate@usenix.org)

We also invite feedback (which will be kept strictly confidential) on the current board members.

## Update on ReX, the International Research Exchange Programme

ReX, the international research exchange program co-sponsored by USENIX and Stichting Nlnet of the Netherlands, has recently funded four projects:

Delft University of Technology and Berkeley Wireless Research Center (UC Berkeley) to develop distributed localization algorithms for wireless sensor networks.

Tilburg University, The Netherlands and the Natural Language and Information Processing (NLIP) Group at the Computer Laboratory, University of Cambridge, UK to conduct research on the automatic construction of electronic dictionaries for use in text mining and related applications using memory-based learning techniques.

Universita' dell' Aquila, Italy and the Department of Computer Science at the University of Colorado in Boulder, USA, to develop novel wireless applications

that leverage the Internet-scale publish/subscribe middleware framework of Siena.

The Cryptographic Group of Applied Statistical Unit in Indian Statistical Institute, Calcutta, India and the Department of Information Technology at Lund University, Sweden, to develop software oriented stream cipher for secure communication over network.

Funding still remains for 2001. The submission deadline for ReX proposals is November 1, 2001. For more information about ReX, please see: <http://www.usenix.org/about/rex.html>.