

Testimony and Statement for the Record of  
Samuel Guiberson, Chair  
National Association of Criminal Defense Lawyers  
Committee on Technology and Law Enforcement

Hearing before the  
Senate Committee on the Judiciary  
Subcommittee on Criminal Justice Oversight  
and  
House Judiciary Subcommittee on Crime  
on  
“Internet Denial of Service Attacks and the Federal Response”

February 29, 2000

Mr. Chairman and Members of the Committee, I appear today on behalf of the National Association of Criminal Defense Lawyers (NACDL). I thank you for inviting us to participate in this hearing.

Leap years like this one occur only once every four hundred years. Opportunities for social, economic and political renaissance on the scale the Internet affords us do not happen as often. There is no blueprint for the wise use of our newly wired world.

We should proceed with caution in how we shape the future of the Internet. Internet technology has become the lifeblood of commerce and a catalyst for global change. If we know anything about the profound change that is underway all around us, it is that we still do not know where it is taking us.

We should be careful and deliberate before acting with familiar political reflexes, trained over the years to deal with very different legal and social scenarios than the Internet presents to us today. We should do this not because there are no decisions about the Internet that need to be made, but rather because we don't have enough perspective of the changes that are upon us to foresee what unintended consequences these decisions will bring.

Our margin for error is very narrow. If we overshoot the proper reach of government monitoring and intrusion in a digital world and sanction law enforcement to co-opt these advancing technological capabilities, our society may fall victim to a perhaps well intended but relentlessly totalitarian surveillance apparatus, whose control over the people would boundlessly surpass the people's ability to control it.

On the other hand, if we underestimate the potential threat to personal privacy, property, commerce and free speech inherent in the criminal exploitation of Internet technology, we will find ourselves at the total mercy of those who are both ruthless and technologically adept, no matter where on this planet they reside.

Having pulled this genie from its bottle, it would be wise for us to reflect more carefully on our choices before we wish the wrong future upon ourselves. Without the best possible understanding of the social, economic, and constitutional consequences of advances in communications and computing, our criminal law could easily lose its good sense in so much great technology.

How do we anticipate and prepare for the long-range consequences of the policies, legislation and legal precedents new technology will demand of us?

### **Governing the State of Technological Change**

The Digital Age is just beginning. For all that has been written and said about the potential of the Internet, the story has barely begun to be told. For all the changes that the Internet has brought about, we have barely begun to experience the changes it will bring. Only when we appreciate the rate of transformation under way in our society can we appreciate that the only constant in our lifetimes will be constant change—change in technologies and change in the way those technologies are being used.

Despite its dominance in our everyday consciousness, all this technology is ephemeral, vanishing as it grows obsolete in a near blur of changing material used to express each new technological generation. If we try to govern a technologically aggressive society by writing laws to respond to specific technologies, or to specific controversies that result from a particular technology, the legal framework obsolesces just as does the particular technology it addresses. The only way to avoid having legislation bypassed by the pace of technological change is to focus on the uses to which the technology is put, and not the technology being put to use.

### **Hearing the Fundamental Chord**

We are all well aware that the Internet is so powerful an agent of change that it is reshaping every society in which it plays a part. As it does so, it will increasingly become the vessel through which our society expresses itself in commerce, in education, in entertainment, in the arts and in political life. In time, it will become the primary framework for our culture. In so doing, it will require us to translate our democratic principles, constitutional guarantees and our basic tenets of individual freedom, privacy, and free association into a new vocabulary for a digital world. Not since the American Revolution has our society been confronted with such a change in our political and social condition as the Internet revolution will bring about. Words have never been more powerful nor granted a greater reach than they are upon the Internet; at no time since the Declaration of Independence was written has our choice of the words we now use to reinvigorate and expand the fundamental premises of our society been more important. The stakes are high, because if we do not define our digital liberties in the years to come, we will have no liberty at all.

### **The Internet is more than a Marketplace; it is a Miracle**

The rise of Internet commerce has preoccupied the national attention and the economy. Yet, for all the dramatic changes that it has brought to the way we do business, provide commercial

information, and market goods and services worldwide, it represents but a fraction of the Internet's potential. It provides us with much more than a seemingly bottomless trough for dot com entrepreneurs, yet we have come to see the Internet only as an earning tool and not as a learning tool.

Never before has so mighty an engine for the distribution of knowledge and culture stood idle at the doorstep of any society. If we can engage the Internet as an engine for public education, our children will have a bounty of knowledge, literature, art and science that so far surpasses what was available to us in our youth that it will seem inconceivable that our generation and their generation were born and raised on the same planet. These opportunities for intellectual enrichment, vocational training, shared professional expertise and teaching open doors for humankind that are simply beyond our present imagining.

While at present we struggle with the question of how many hundred websites there need to be to sell watches, you as lawmakers must not be distracted from protecting the Internet's potential for the miraculous. Whenever you are tempted to tinker with the Internet, take into consideration that within this decade, we will live in a world enveloped in a quivering electronic membrane of instantly accessible information, comprising all the knowledge, art, science and history ever committed to paper in any modern language at any time, humming over our heads for the rest of our lives, and growing exponentially without limits for as far into the future as we can imagine.

We have seen human history only in the parts that have been preserved, seeing our own past through the slivers of a shattered mirror. What we will give to posterity is a complete reflection of our time and of ourselves. That is the legacy for which we have responsibility.

If we legislate the Internet as we might do if it were no more than a forum for commerce, we might well be tempted to enact laws in ways appropriate to markets but not to forums for intellectual, artistic and political exchange. The freedoms of commerce are much more parochial than the freedoms of expression. We should strive to avoid seeing the Internet in too narrow a perspective. If we don't leave broad expanses for the independent growth of novel and eccentric means of free expression, for public education and the arts, we risk chilling the Internet as a venue for diversity of expression and political thought—leaving ourselves living in a wired world that has everything for sale and nothing to say.

The Internet's great potential is not in raising capital, but in raising the human condition. For the Internet to do more than fulfill a mercantile mission, governments must be generous in underwriting the Internet's non-profit potentialities, and enlightened enough to forego taking control of it.

### **Enhancing Preventive Measures is a Better Deterrent than Enhancing Punishment**

Our priority in Internet policing is to ensure that the Internet maintain the civil order of an open and democratic society. Our citizens must have confidence that the personal and corporate information and electronic currency they convey over the Internet is secure. They must have confidence that when they express themselves on the Internet, whether through a commercial

enterprise or homepage about their family life, their message, their content, will not be destroyed or overridden by anyone's whimsy of malice against them, their ideas, or their enterprise.

So great a consensus of public support exists for law enforcement to achieve this goal that any legislation enhancing punishment for denial of service attacks, theft of credit card information, invasion of privacy and confidentiality will be well received. Rather than simply make a political statement and throw more jail time at the problem, we would do well to measure what response is most likely to deter, if not defeat, the occurrence of criminal offenses for which we are all ready to punish severely.

Any punishment-based deterrent presumes that offenders act rationally, weighing the risks of capture and confinement against the benefits of succeeding in a criminal enterprise. The pragmatic lawmaker might first consider whether this presumption holds true in all cases of Internet crime. While it is certainly true that a thief who uses a computer to steal has no different motivation or intent than a common criminal who might burglarize with pliers instead of wires, many computer invasions and systems attacks seem motivated more by the desire to exercise a technical virtuosity than to profit from the crime.

It is not a condonation of these acts to recognize that their motivation assumes an invulnerability to discovery that is in almost all cases, delusional. If the actor is psychologically disposed to believe that he or she is so clever that they cannot be apprehended, the deterrent effect of upwardly spiraling sentencing ranges is greatly diminished. There is really no social benefit to turning computer criminals into long term corrections statistics if by correcting the technology, we can diminish the opportunity for the crime to occur in the first place. The Federal Government can make the most effective gains in reducing hacking attacks of every stripe by supporting research and development of more capable defensive technology and requiring greater diligence in the onsite monitoring and administration of commercial computing systems on and off the Internet.

### **Encourage Responsive not Proactive Computer Law Enforcement**

The investigation of crime and the apprehension of perpetrators do not run on Internet time. No professional law enforcement agency can conduct a thorough and successful investigation of any criminal offense, on or off the Internet, without applying methodical and time-consuming investigative techniques. It is not a breach of professionalism, but a mark of professionalism, if these duties take time. In the realm of Internet crime, the public perception that a hacker can and should be caught before his fingers leave the keyboard is beyond naive. Law enforcement's performance in apprehending computer hackers is far from cause for panic. With the human resources, and funding appropriate to the task, and in light of the overwhelming support and cooperation extended to them by the professional computing community, federal law enforcement can enforce computer laws and deter computer crime by employing the tried and true traditional methods of meticulous investigation for which it is well known.

Because the Internet is a computer network, an electronic apparatus, albeit an enormous one, there is a temptation for us to encourage law enforcement to get its arms around the entirety, to put a policing overlay into the technical infrastructure itself, so that the government has the

capability to monitor every Internet macro and micro event. Were this mindset applied to any dimension of our society other than a technological one, there would be public outrage. In order to quell domestic violence, would we sit an officer on the sofa with husbands and wives in every home in the nation? Would this police tactic quell domestic violence? Absolutely, but at the cost of privacy in our familial communication and expression that would altogether inhibit and corrupt our social interactions. The consequences of surveillance of the whole as a proactive policing strategy are just as dire. Who would not hesitate to communicate with a loved one in sensitive terms, or convey privileged or confidential business information across a system under constant surveillance? The Internet's rich tapestry of expression on every subject would be reduced to a sterile and muted code language akin to what the husband and wife might use in the presence of the unwelcome officer. While there are risks of criminal exploitation of the Internet, if we depart from the customary means of criminal investigation merely because it might be, or become, technically possible to monitor every electronic action and reaction, we put our open society at a greater risk than criminals could ever pose.

### **Insuring Internet Privacy Ensures Internet Security**

The public debates on Internet privacy and Internet security have been on parallel tracks, despite being the same issue. The right to be secure in our personal and financial privacy on the Internet is viable only when the Internet as a whole is secure. The Internet must be a place in which we can trust that all information that is our property cannot be unwittingly compromised from us by criminal act or commercial fiat. What we invest as a nation in the upgrade of our network defenses against unauthorized access to computer resources of any kind should be reinforced by the enactment of laws that criminalize the surreptitious access and collection of personal information available in transit across the Internet and especially information residing on the individual and business computers connected to the Internet.

### **The Internet is not a Crowded Theater**

To everything new, we first attach our suspicions. The Internet is no different. Because it is more interesting if something we rely upon so absolutely as we do the Internet is portrayed as vulnerable, our public dialogue about the Internet has relished its shortfalls and ignored its strengths. The Internet itself is not fragile. Only our public will to trust in it is fragile. If we over commercialize the Internet, we will lose as a culture, if we over legislate the Internet, we will ultimately stunt its growth. If we fear the social, economic and political changes it will bring, we will try to control it to reflect what is familiar to us, rather than what is possible for us.

Today, the Internet as we know it has been brought into being by a generation of gifted and resourceful people who possessed a vision that has inspired the world. They are of many backgrounds, many beliefs, they have been motivated by many different personal and collective goals. If this description seems familiar, it is because it is written in the same inks as the history of our nation. The Internet is us. We should have the same confidence in its resilience, its fundamental virtue and its potential for greatness as we have always had in our nation and in ourselves as a people.

In ancient times along the Fertile Crescent, new civilizations were built from the fertility brought by the river to the people. The Internet is such a river, a river of knowledge, commerce and culture upon which a new millennium's civilization will be built. Building the electronic edifice which is the foundation of that next civilization is the legacy of our generation. For us to realize the full potential of the Internet would be a monument to human civilization that would make the Pyramids seem like grains of sand.

Through the technology of today and of tomorrow, we have within our reach a great uplifting of our nation, and of all humankind—an unprecedented opportunity to make the coming generations more free, more prosperous and possibly wiser than we were. It would be insufferable and inexplicable to our children if, out of overreaction to the risks at hand, we fail to win that prize.

Thank you.

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Note: NACDL has not received any federal grant, contract or subcontract in the current and preceding two fiscal years.