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Date: Monday, February 22, 1999 3:32 PM
Subject: Promotion of Distance Education through Digital Technologies

19 February 1999

Dr. Sayuri Rajapakse, Attorney-Advisor
Office of Policy and International Affairs
U.S. Copyright Office [Room LM-403]
Copyright GC/I&R
P.O. Box No. 70400, Southwest Station
Washington, DC 20024

Dear Dr. Rajapakse:

Dr. G. Arthur Mihram and I are forwarding herewith, as a reply comment to the public hearing, held 10 February 1999 in Los Angeles, on the Promotion of Distance Education through Digital Technologies, as conducted by the Library of Congress's Copyright Office, this letter and its 'Enclosure'.

Most of our reply comment is contained within the paper, "Tele-cybernetics: Standards and Procedures for Protecting the Copyright of Digitised Materials," as presented on Thursday, 5 November 1998 in Monterey, California to the INTERNET LIBRARIAN'98 Conference and as appears as pp. 196-203 of its proceedings, published by Information Today, Inc. (143 Old Marlton Pike,; Medford, NJ 08055-9912) under the title, INTERNET LIBRARIAN'98.

We enclose herewith (below) a digitised copy of that paper for inclusion in the record of the hearings, together with the following quite direct responses to the oral testimony which was presented at the Los Angeles hearing on 10 February 1999:

A) In more direct response to Mrs. Perlmutter's question (for the panelists assembled that day): "How does and should the copyright law apply to distance education?", we would note that our paper makes two points in response:

1. First, the US Congress should establish, operate, and maintain a national "electronic post office and post roads" in fulfilling its constitutional obligation to do so now that we have entered our Age of Tele-communications from our earlier Age of Written/Printed Communications so familiar to the authors of the Constitution of the United States of America. By having a governmentally-issued (and -secured) electronic postmark on each communication entered into that network, a postmark

enhanced by, e.g., any message's inclusion of already copyright-registered material, then considerable protection to copyright could be, rather automatically, achieved; hence, distance education, conducted over that network, would be compliant with copyright laws and/or any licensing arrangement between the copyright owner and the organisation conducting distance education (and/or its electronic library). We would envision that the technology known as "digital, or electronic, watermarking" would be quite ideally suited for the purposes of securing the postmark and, concomitantly, of providing a tentative means for providing the equivalent of a "sealed electronic letter".

2.Secondly, we suggest--in the paper also-that this digital watermarking technology be employed as well by the Library of Congress's Copyright Office at the time of registration of each document (electronic or otherwise) submitted to it for that purpose. The then-watermarked and copyright-registry-marked copy would be returned to the copyright owner (publisher/author), ensuring that all subsequent copies-or any portion thereof-would carry the "copyright seal" and thus provide the copyright protection which our Constitution of the United States of America expects the US Congress to provide to [us] authors.

B) As for [UCLA] Chancellor Albert Carnesdale's expressed fears that the licensing of digitised materials by their publishers would constrain academic freedom even more than the difficulties created for scholars by out-of-print books, we would add that universities and electronic publishers/authors should be able to insist on contractual terms which would preclude a publisher from totally restricting access to one of its publications, since publishers-operating under the technological arrangements (A2 and also A1, above) which we suggest-would know that a university's library must meet its obligations to restrict dissemination and/or duplication of any copyright-registered work in accordance with the publisher-university/library contract.

We would add to this comment our suspicion that the new and widespread attitude among many academics (that they/we possess the 'right' to make xerographic copies of [portions of] copyright-registered works) probably stems from a failure of previous US Congresses to provide adequate copyright protection for printed works as soon as the xerographic copying technology became available.

C) In more direct response to Mrs. Perlmutter's question regarding any implicit requirement for a library, including the Library of Congress, to make records of users of digitised materials, we would not share the concern voiced by panelist, Roe Darnell, that students and faculty would feel that their privacy need be as a result breached. Our paper (below) addresses this matter of electronic file security and its maintenance as a result of proper implementation of the 'electronic watermark' both for [enhanced] electronic postmarks and for copyright registration. By ensuring that their respective institutions provide and secure these databases as recommended in the paper, faculty and students should feel

assured that their academic freedom should be neither infringed nor restricted.

We thank you for the opportunity to record-as part of the reply comments to the hearing held 10 February in Los Angeles-both the preceding remarks (A, B, and C) and a copy of their referent: our INTERNET LIBRARIAN '98 paper, as follows

Enclosure: INTERNET LIBRARIAN'98: pp. 196-203, 1998.

Sincerely yours,

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Enclosure: INTERNET LIBRARIAN'98: pp. 196-203, 1998: as follows:

TELE-CYBERNETICS:
STANDARDS AND PROCEDURES FOR PROTECTING THE COPYRIGHT OF DIGITISED MATERIALS

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ABSTRACT

We place the matters of copyright procedure and copyright protection in the context of the result of the ongoing convergence of technologies: the tele-graph (e-mail); the tele-phone (digital telephony/voice mail); tele-vision (cable plus video-on-demand); and, the tele-computer (with its monitor = TV screen). The result is to be an electronic postal service, one which (History has taught us all, we

insist.) should incorporate several standards which we have learned to expect from our national postal service: e.g., sealed letter protection; carbon copies; postmarks; return addresses; certificates of despatch; certificates of delivery; content-markers (such as 'Book Rate', 'Special Handling', 'Printed Matter').

Consonant with the establishment of a governmentally-secured "electronic postmarking" is to be the incorporation of procedures, using technology such as the "electronic [digital] watermark", to secure the integrity not only of the copyright registration of publications but also of copyright protection and fair use. Indeed, this same technology, we suggest, is probably just that which we require in order to establish a governmentally-secured "electronic postmark".

The paper develops these matters quite explicitly, calling for a re-thinking of our currently enchantment with both de-regulation in tele-communications and the notion of the existence of (essentially unregulated) multiple carriers. We show that our expectations for fair use (by academics) and for copyright protection (for publishers and authors) can be met by instituting procedures and legal structures for the registration and then the electronic dissemination of copyright material.

INTRODUCTION

In the present paper, we are calling for Congress to recognise its responsibility to organise the "electronic postal service," rapidly eventuating because of the convergence of several electronic technologies:

* the tele-phone (becoming digital telephony/voice mail)
* the tele-vision (both cable and video-on-demand)
* the tele-graph (the better analogy for E-mail); and,
* the tele-computer (with its 'TV screen').

Just as we had all become accustomed to features of the "snail-mail" postal service, we call for national standards via governmentally-secured features which would correspond to: "sealed letters"; governmentally-issued postmarks; certificates of delivery; certificates of receipt; and, content-markers, e.g.

We emphasise that these otherwise strictly postal functions directly affect the Internet Librarian: inter-library loan and licensing procedures, plus the protection of copyright for digitised material under due consideration for its fair use.

To accomplish this goal, we shall delineate a procedure, using electronic (digital) watermarking, not only for copyright registration by the Library of Congress but also for subsequent copyright protection.

The issues of governmentally-secured tele-communications and of the governmental-issuance of copyright registration for digitised materials are

merely exemplary of duties imposed now by THE US CONSTITUTION on the US Congress simply because of our arrival [1], from our previous Age of Written/Printed Communications, into our current Age of Tele-communications. The authors of THE CONSTITUTION OF THE UNITED STATES OF AMERICA recognised the need, in a nation dedicated to insuring domestic tranquility, for governmental "controls" within two features of communications (viz., "post offices and post roads" and advancing "science and the useful arts"): a secure person-to-person communication service and a copyright/trademark/patent protection service.

The paper therefore advances our earlier calls [2, 3, e.g.] for an awareness of our need for "tele-cybernetics", which might be defined (a la electrical engineer N. Wiener) as "tele-communications plus (proper) tele-controls", but would be better understood as "scientific politics in our Age of Tele-communications' [1], in accordance with the understanding that both Plato and electrical scientist Ampere had for their term, cybernetics.

COPYRIGHT AND FAIR USE

We shall return (below) to the discussion of the requirement that there be established a governmentally-secured (and -operated) tele-communicative network. Such a national 'electronic superhighway' is virtually the only method by which we can collectively be assured of the integrity and security of our electronic transmissions, whether these be of book length (e.g., videos, TV programmes), of magazine size (e.g., a weekly sitcom subscription), of article size (e.g., a typical file despatched by E-mail), or of letter or (digitised) phone-call length. The current political infatuation with the privatisation of so much of the converging electronic industries will surely be short-lived, particularly once a sufficient number of us become disgruntled with our requisite efforts to clarify the integrity of transmissions (including business and library transactions) sent or received.

One of these issues relating to integrity of the contents of an electronic transmission deals with its copyright status. We propose that, as a part of every enhanced electronic postmark [to be defined quite explicitly below], we include a copyright 'tag' or indicator on every portion of a transmission which either is copyright-registered or is intended to become so registered. The issues of copyright violations, so difficult to establish for machine-readable (digitised) materials [because they can, with scanners, readily be originally computerized from print material or, thereafter, duplicated by means of a computer programme] can be considerably resolved by means of a properly implemented "enhanced electronic postmark". Such a marking must (under, say, threat of legal penalty) indicate whether any material within the transmission has been or is intended to be copyright registered. Any sender transmitting such material will need be aware of his legal obligation to so advise at the time of transmission, though we suspect that the imposition of an "electronic copyright tag" at time of copyright-registry by the Library of

Congress could, if implemented properly by means of electronic [digital] watermarking, obviate this requuirement.

The recent remarks of B. Lehman on royalties, fair use, and copyright [4] failed to note a very important aspect of copyright: viz., the procedure establishes priority of publication of an idea, a notion very intrinsic to academia and particularly to its libraries in our Age of Tele-communications. An example of this was recently expressed anecdotally by P. Lyman [5: pp. 34-35]: copyright, contrary to Lehman's opinion, is not strictly economically motivated. Even the US Constitution does not emphasise economics, stating instead that the purpose of copyright is to "promote the progress of science and the useful arts [italics added]."

We propose two additional matters for the "enhanced electronic postmark" so as to facilitate copyright protection and fair use of copyright-registered material:

First, as more and more copyright registrations will likely be conducted electronically at the Library of Congress, the Copyright Office should be obligated to provide with immediacy the "copyright postmark information" to the author/publisher of the digitized 'document' itself. We propose that the evolving technology of "electronic watermarks" be an inherent part of this procedure, meaning thereafter that any re-transmission by the author/publisher OR by any reader/user subsequently of any part of the copyright-registered material be automatically labeled with (and carry within every future electronic re-transmission) this official copyright notice.

Secondly, we would propose that any material which carries a Copyright Registry marking be forbidden to be encrypted. After all, is not all copyright-registered material already in a public registry (Library of Congress) and therefore not in need of any encryption? (Perhaps exception can be granted for transmissions whose 'enhanced electronic postmark' already includes an authorized military or governmental security status, so that a quote from a copyright registered text would not provide to an interceptor a form of content-labeling for describing the remainder of a necessarily encrypted message). Nonetheless, we see no real need in any honest re-transmission of copyright-registered material to encrypt it.

We two earlier [6] indicated beneficial side-effects of such an electronic copyright registration and copyright-watermarking standard: viz., it might even facilitate the morally requisite referencing by academics of an earlier author's work in a quite 'electronically automatic'. manner.

THE ENHANCED ELECTRONIC POSTMARK

We trust that the reader can familiarise himself/herself with the notion of the "electronic watermark," also referred to increasingly in the literature as the "digital watermark" [7]. One more and more frequently is

experiencing it in/on television broadcasts as the 'logo' of the originating channel/network, the one for the composition of the video material. In this sense, such an 'electronic trademark' is only a short step from the implementation of the 'electronic copyright marker' which we are here proposing. An additional feature of the digital watermark is that it remains indelibly attached to any portion of the original material so electronically 'stained'; hence, the enforcement of court-defined fair use guidelines for such copyright-registered materials becomes much easier.

Both academic administrators and their librarians could, we feel, experience considerable relief once such a 'copyright seal' becomes standard operating procedure. Procedures for electronic "inter-library loans" could be quickly implemented in manners, we believe, that would be respective of the rights of publishers and authors (i.e., of copyright-owners).

There is, of course, an attendant issue of 'electronic withdrawals' by students and faculty (or, more generally in the library context, by patrons). We cannot foresee the ultimate resolution of a (digitised) book's acquisition costs to libraries (Will these become "subscriptions" [with the requisite records to determine access fees] or "access licenses" [also with requisite records of usage]?), but clearly authors require publishers and publishers require copyright protection, much more now in our electronic age than had already become apparent with the advent of the electronic copying (Xerox-type) machine.

Hence, the requirement for some type of "electronic postmark" in order to identify he/she who is making an electronic request for such a library holding. It must be made clear that we understand that many rightfully in academia do not wish to disclose to any (say, competing or philosophically opposed) colleague just what material he/she has been using in/at/from the library. Indeed, the American Library Association probably reflects this attitude when it calls on librarians not to 'pay close attention' to the material which a patron is employing in his research. We must recognise that there must be a software solution to this matter: viz., for purposes of being granted access to material, an electronic request must require as much information as the institution or its library may deems necessary, yet for the purposes of 'paying for' the fulfilled request , the institution's software needs to 'electronically drop' any identification of the electronic requester, once that requester has been granted access [much as is frequently the case at libraries with restricted access at the entrance door or with limited access therein to the stacks].

We have therefore uncovered a number of the aspects which we have earlier called for in an 'enhanced electronic postmark' [1,3,6]. Clearly, any electronic postmark is to include not only the area code and the exchange number of the message's telephonic origination but also a "tag" indicating its contents: whether militarily secret; whether portions have been or are to be copyrighted; and, whether it contains portions which are violent, pornographic (either visual or verbal), or linguistically

vulgar in character.

At the 1995 Pacific Telecommunications Conference, one of us two authors asked (from the floor) of the Conference's featured speaker (Graham Davey, International Telecommunication Union [ITU]) whether we could expect that the ITU would be setting as standard operating procedure the requirement for an electronic postmark on every tele-communicative message. ITU's Davey responded from the podium that this suggestion was "indeed quite prophetic", implying that such an "enhanced electronic postmark" will need to be considered by standards-oriented agencies such as the ITU.

Within the statement of the question addressed to Graham Davey was also expressed the likely existence of concern by certain individuals that such a procedure (postmark) would be an opportunity for governments to invoke censorship, such as by the governmental exclusion of materials entering telephonically (or via satellite re-transmission) their own country. See, for example, Simon Garfinkel's [8] subsequently published worry that efforts to detect and/or correct tele-communicative fraud will lead to invasion of "privacy".

THE ENHANCED ELECTRONIC POSTMARK AND ELECTRONIC FILES

Two issues, we feel, need here to be separated. There is a tele-communicative issue as to what material is permitted to be transmitted; and, there is a second: an electronic file-protection issue.

By proposing the enhanced electronic postmark, we feel that we may have virtually resolved both issues. If the enhanced electronic postmark is 'standard operating procedure' [with, of course, everyone knowing that this is the case], then any/every computer file can be protected by invoking a list of calling ID numbers/passwords to which access (or, even, limited access) is granted; furthermore, every file's supporting computer can maintain a log ("at the front" of the file) of every request (successful or rejected), with its exact postmark (date/hour/second and origination), for entry into the file and can even maintain a list of which data (i.e., e.g., whose specific social security or medical or financial or credit file) has been entered, so that any affected party can know of such entries and/or attempted entries.

Though we realise that the clandestine among tele-computer hackers will endeavor to exploit their expertise so as to treat their originating telephonic connexion as another "password" to be cleverly disguised, we feel confident that a governmentally-secured (enhanced) electronic postmark can accomplish the desired goals of eliminating the receipt of undesired pornographic or treasonous material and of terminating illicit tele-computing hackers.

THE HISTORICAL BASIS

In 1981 we [2] augmented a 1974 paper with our 'Proposed [Telecommunicative] Amendment to the US Constitution', an amendment, we suggested, which would permit the US Congress to better regulate and/or control our tele-communicative carriers and our tele-communicative broadcasts. Our 1997 paper, presented here in Monterey [3], reviewed much of the record of our introduction of the notion of an 'enhanced electronic postmark', making clear that, historically, we Americans have always expected that our government would be the secure carrier of our person-to-person messages. (We can all be aware that any private carrier will likely secure from us a contractual right to open our letter/parcel as that carrier sees fit.)

The ongoing convergence of electronic technologies reminds us of the [American] constitutional precedent for the governmental 'control' of both our 'tele-post-offices' and the new information superhighway [with its tele-computing at the forefront].

Despite the paper's orientation to the American tele-communicative policies, the international implications of the paper arise in two facets : 1) The historical background for the 18th-century recognition of the need for governmental control of 'post offices and post roads' was not just an intellectual whim among the intelligentsia of the time, but rather their own considerable reflexion on its historically established requirement, one derived not only from 17th-century France but also from Plato's Republic. ; and, 2) The present-day concern in the international community (e.g., Germany and the Islamic world) of their limited capability to constrain (or 'control') the content of material making tele-entry into their country over the information superhighway from beyond their borders.

As early as 1968, Churchman [9] expressed his awareness that our entry in our Age of Tele-communications had been unwarily undertaken [See also References 1 and 2.]. The manipulative and non-edifying nature of television broadcasting has become increasingly obvious to us all by now, resulting in the 1996 Tele-communications Act and its concomitant, Communications Decency Act.

The Founders of the American republic, the authors of the US Constitution, included as one of the limited (seventeen or eighteen) functions of the legislative body (the US Congress) the power to build post offices and post roads. Of the few guiding principles which these founders employed in order to justify governmental intrusion into the citizenry's private life, the one which must have been paramount in introducing the 'post offices and post roads' clause, probably is reflected in its Preamble's statement regarding the (very few) purposes of government: viz., "to ensure domestic tranquility." For exactly the same purpose, the US Constitution requires that another of those 17 or 18 duties of Congress is to establish a copyright procedure.

Historically, official public post offices were (at the time of Benjamin Franklin and James Madison) not much more than a century old. The

historical novel, The Three Musketeers, relates exactly the lack of tranquility which results in a nation in which messages and parcels are trusted to alternative (i.e., from one among multiple) carriers. Though the novel may be largely fictional, one cannot help but notice that one of its main characters [Cardinal Richelieu, Head of the King's (Louis XIII) Council as of 1624] is today recognized as the Father/founder of the French public postal system (ca. 1627), and therefore of the 'national postal service'.

Concomitant with the governmental post office was a recognition of the implicit social contract of the citizen with his government: In exchange for the government being the (i.e., the primary) carrier, a citizen was to be assured, via the 'sealed-letter' notion, that neither the letter nor its contents would be intentionally disturbed before the designated recipient had 'broken' its seal. With the exception of content which could be demonstrably suspected of being either treasonous or pornographic, governmental agents were never to have access to that which was under sealed post. Furthermore, the content [and its wrapping/envelope] was, during transmittal, to be the property of the sender and never (except for justifiable suspicion of treasonous or pornographic content) that of the government, the ownership transferring instantaneously to the addressed party upon delivery.

Most of the world's nations, unlike the United States, had made the connexion [between the telephone and the mail] by establishing (re-naming) their postal services: 'The PTT': Post, Telephone, Telegraph. Despite America's historical oversight [= an early, though unwary and unwarranted, effort at "privatisation" of public responsibilities?], we must recall that we citizens had always become accustomed to our postal service's ability (and responsibility) to stop, upon request, unsolicited, annoying, or pornographic or treasonous mail from delivery to us [to our homes, to our offices]. Furthermore, we could expect to do this without having to file any lawsuits against the offending parties: the postal inspectors were to be certain that such materials were no longer to be routed to an offended party under threat of punishment in a court of law.

Similarly, obscene books (and even offensive recordings, videos, and CDs, as we moved into our electronic/tele-communicative period) could be, upon request, stopped from delivery by the postal service. Attending the American Library Association's 1998 Annual Meeting this summer in Washington, DC, we attended several sessions in which attendees from the floor were expressing not only their patrons' anguish as to why the library was not restricting access to pornographic material for their children but also their own despair. It seems that the American Library Association should reconsider its policy on unrestricted access.

We therefore feel that our proposal for the 'enhanced electronic postmark', including pornography/violence/linguistic markers, is quite in keeping with the spirit of the postal service as an intrinsic element of a republic, provided that we also recognise that the government must operate

a tele-communicative network for us all. Ensuring the domestic tranquility in our Age of Tele-communications requires it.

If one considers for a moment the implications of the now widespread (though quite mistakenly held) notion of a requirement for privatization of tele-communications, the reflective will soon realize that the integrity (viz., via the 'electronic sealed letter') of one's tele-communicative message will rapidly become suspect if one's chosen carrier (such as those depicted in The Three Musketeers) opts to serve parties other than the sender. For example, as was pointed out to us (over a dinner conversation at the 1995 Pacific Tele-communications Conference) by the Postmaster General of Fiji: If a carrier becomes financially insecure, then the value of the content of some one of the messages in his circuitry may readily exceed the cost of transmitting the message unintercepted. Given that the transmission cost of a one-minute (verbal) telephonic message now is estimated to be one cent, the opportunity for a financially strapped carrier to misbehave should be apparent. And, given the rapidly growing number of advertisements by new carriers, are we about to enter our own Twenty-first Century version of The Three (Electronic, or 'Cyber-') Musketeers?

In consonance with the above delineated historical justification for a governmentally-secured postal network, now seeking its equivalent in our Age of Tele-communications [See References 1 and 2.], we note that efforts at encryption are being employed in the hope that such will produce the equivalent of an "electronically sealed letter". Of course, encryption does not accomplish this goal over a network which is either easily interceptible or controlled by one or more private carriers. Yet, the "protection" provided by an encrypted message is always of some comfort to a sender and a receiver, but if interception is possible, one only requires more perseverance to de-code an encrypted rather than a non-encrypted message. (Recently, a student at a California university employed the power of many computers addressable along the Internet, employing them simultaneously to show that he could, in a reasonable period of (computer) time, de-code a message secured by one of the most powerful encryption codes currently being employed!)

Where, then, is the 'electronic sealed letter'? Cannot an enhanced electronic postmark,, accomplished via digital watermarking, better achieve this goal for transmissions despatched over a governmentally-secured network?

PORNOGRAPHY IN THE LIBRARY

Within the electronic library in, say, a university setting, how does the librarian explain to a visiting scholar (or alumnus/-a) why he/she is permitting one or more students to access pornographic files, via the library's public access workstations, bringing on-screen obscene material for public view? The likely answer would be that the files are not part of

that library's collections and are accessed via the Internet (on the 'information superhighway'). Should this explanation fail to be satisfactory, he/she would be left to explain to the irate visitor our First Amendment Right, alluding thereby to the US Constitution itself, to freedom of speech and/or the "press [or, more accurately: 'electronic press']".

Similarly, within a home, how can a parent ensure that his/her child is not accessing undesirable material via the home computer, the latter not only equipped with a modem, but also "Web-capable"?

Pornographic content accessed via the library or the home is not an insignificant issue: it has gained the attention of the popular press, as, for example, TIME Magazine [Elmer-Dewitt, 1995] which used the term, "cyberporn" to describe this phenomenon, called by another group, "journoporn".

Our proposal for a governmentally secured tele-communication network (with its enhanced electronic postmark as a primary function) is, of course, in harmony with the US Constitution and, furthermore, not in disagreement with its Bill of Rights (particularly, its First Amendment). We citizens have always expected that, in order to secure domestic tranquility, the US Congress would establish secure post offices and post roads; we should expect that they will do no less in our Age of Tele-communications.

What, though, about the currently and continuing obsessive broadcast of obscene, lustful, and/or pornographic material, objections to which have been up till now successfully countered by those invoking the First Amendment (the right to freedom of speech, even licentious speech)? We do not feel that our proposal for the enhanced electronic postmark within a governmentally secured communication network will be able to correct the broadcast media, just as it will not restrict newspapers and journals from printing such non-edifying materials.

However, the inevitable arrival of widespread "video-on-demand" services and the already well-established cable television industry serve as examples of what will soon be the "electronic parcel post" [or, more precisely, of book and magazine subscription deliveries]. Under the postal system, if one finds that an earlier-entered subscription to a newspaper or journal has become obnoxious or unsatisfactory, one merely advises his local postmaster to ensure that no further deliveries occur.

We feel that our proposal can be employed by a parent (and librarians) everywhere to restrict (on the governmentally secured communication network with its enhanced electronic postmark) obnoxious or pornographic or treasonous material from entering his home (or institutional) computer (soon to be connected not only to the telephone lines but also to the television screen) whenever it fails to meet the standards of the home owner, or those of the institutional or school

library. Any one of these groups or persons can subscribe to their own choice among "rating services": e.g., one organised by the Rev. Donald Wildmon, or another by the Catholic Church or other religious groups or even local pastors, or commercial groups such as Consumer Reports, or local schools (and/or Parent/Teachers Associations), or even one's own political party. One's own computer could then forbid the reception of any material which any one among one's selected list of rating services (or commercial services providing 'video reviews') would so recommend.

CLARIFYING THE ENHANCED ELECTRONIC POSTMARK

Clearly, the reflective among us will recognize that this proposal for an enhanced electronic postmark (including its intrinsic indicators regarding violent, pornographic, and linguistically objectionable content) is not governmental censorship. We can allow competing rating services to re-define the levels of any initial scalings of pornography and violence (from, say, level 0 [very good, pristine], to level 9 [very bad, corruptive]) to be refined so as to permit us to exclude the receipt of material that is deemed unacceptable by either the individual or any one of his/her chosen rating services.

One is hard pressed not to point out that the New York Times adopted (probably in the 19th century) a motto, "All the news that's fit to print," though claiming also that they were to be the 'newspaper of record'. Presumably, news that was 'not fit to print' was to be any of a non-edifying nature, such as any which supported or condoned violence or any which was lewd, lustful, or pornographic, though perhaps now the news that it considers 'not fit to print' may be only that of a specific political orientation.

Included within the capability to exclude deliveries should be, of course, the capacity to employ for the purpose of exclusion the primary portion of the enhanced electronic postmark (viz., sender's calling ID), though we need to be more explicit perhaps as to what we suggest here: Commonplace in the telephone service has been the privilege of owning an unlisted number. Clearly, the release of one's exact telephone number regularly , as a result of implementation of the enhanced electronic postmark, is NOT what we have in mind. The governmentally-secured telecomunications network [It could indeed be part of the national 'PTT'.] would be expected to maintain in its secured data files the transmitting party's exact number [i.e., area and exchange codes plus the actual number] for only a limited time (say, 7 or 30, 60, or 90 days), a policy which would:

A) permit any receiving party (who requests of his local "PTT-master" that certain transmitting locations cease sending material to him/her) to know that the national PTT can trace the offensive sender and so advise him/her to desist [under penalty of law]; and

B) allow the authorities to locate and prosecute any offending party for

repeating his action either by purchasing another telephonic connexion (new number) or by selling/giving his subscriber list to any other party without at the same time advising the new 'tele-marketer' exactly which on the list have already lodged either complaints about or requests for disconnections from any service, whether they be originally under subscription or otherwise.

Furthermore, for enforcement of laws against treasonous communications (as well as those against pornographic, linguistically objectionable, or violent violations), we should be able to expect that portions of these PTT-maintained files of limited duration might be securely transmitted to a national law enforcement agency (FBI, e.g.) for its secured electronic storage for say, 6 months or one or two years, these extensions being permitted only under court-secured order (e.g., search-warrant procedures) for criminal behaviors under active investigation. Any access to these files by law-enforcement agencies could be similarly restricted to those warranting a court order.

That is, we propose only a very limited and very well controlled release of the 'Caller ID', the actual sending party's number, though one feels that an individual, if requested by the party receiving one's telephone call/transmission, to provide this information could, at the press of a designated button on the keyboard or phone pad, transmit his/her calling number immediately (to expedite later return calls, e.g.).

We should add, here, as a note aside, that we are suggesting an electronic postmark which separates the sender's "electronic return address", just as this information can be separated or withheld on a postal transmission by a sender. However, for computer-to-computer transmissions, the receiving computer could well be expected to require, before granting access to any of its electronic files, not only the 'Caller ID' but also any additional information deemed necessary before granting access.

We do not hesitate to point out that the proposal for the enhanced electronic postmark, so restrained, might well satisfy the recent requests by FBI Director Freeh to the US Congress for the enhancement of law enforcement in our Age of Tele-communications.

A further clarification regarding the enhanced electronic postmark is in order: for transmissions originating on a wireless instrument, it may be necessary that technology permit not only the 'Caller ID' attached to the particular cellular phone but also the geographical location of the entry of the particular transmission into the national network.

We had noted (above) that an issue second to that of the communicative content deals with the issue of electronic file security. The enhanced electronic postmark, we feel, improves this security in our contemporary tele-computing scenario by providing one additional marker by which access to electronic files can be restricted. We see the enhanced electronic postmark as being just one of the guards, locks, receptionists,

and secretaries (and their own office-specific, cabinet-specific keys) which have attended the security of (paper) files before our Age of Tele-communications (and its tele-computing). Indeed, perhaps a requirement for a computer's accepting a (non-voice-mail) message is that the full 'Caller ID' be within the electronic postmark.

We therefore see no difficulty in computers themselves filing requests, to some nationally secured file of electronic information, for data of a biometric character (such as to be able to compare one's fingerprints, one's voice-prints [7], one's photo, one's height, weight, or facial-thermal record, or one's spouse's mother's maiden name). To protect this file [and thereby alleviate the concerns of individuals like Garfinkel [8], about privacy and/or its invasion], we would insist, as stated above, that a record (of every person/computer which enters into or retrieves from an electronic file) be maintained at the "invaded" computer file; we would even expect that, in accordance with Congressional/legislative demands, that almost all such investigations of, or entries into, one's personal data be mandatorily reported to [or, minimally, be available upon request of] that person whose file (or whose children's file) has been entered/investigated.

A NOTE ON PRIVACY

The issue of privacy as a right, as a constitutionally guaranteed right, seems a bit moot. The recent Senatorial political rejection of Judge Bork from the Supreme Court, many would say, was to exclude from that court those who, like Bork, feel that there is no constitutional justification for a "right to privacy". No original intent of any notion of such a right can apparently be found among the Founders of the Republic or the authors of its Bill of Rights.

According to L. Tribe [12], the matter of privacy as a right was introduced by L. Brandeis in Olmstead vs US 277: 438 and 478 (1928), but merely, one emphasises, as a dissenting opinion:

"Justice Louis Brandeis defined the constitutional right of privacy as 'the right to be left alone - the most comprehensive of rights and the right most valued by civilised man',"

clearly a personal view probably unfounded among republicans (those who, like Jefferson, believe that truth-seeking & truth-following are the features most valued by civilised men: see Cheney [10]).

Tribe also points to Fried (in a quote that would certainly appeal to individuals such as Garfinkel [8]), who noted in 1968: "Physical privacy is as necessary to relations of the most fundamental sort ... respect, love, friendship, and trust as 'oxygen is for combustion'." [11]. It remains unclear either that this analogy is well founded or that it serves as a hopeful justification for proclaiming a "right" of privacy.

CONCLUSIONS

We have here proposed that history teaches us that we require a nationally- (governmentally-) secured tele-communications network, preferably even one which includes most of the burgeoning wireless industry because of its likely increased use of digitization (and, therefore, facile computerization). A fundamentally intrinsic part of this network must be an "enhanced electronic postmark".

The librarians' code of ethics notes that "librarians must resist all efforts by groups or individuals to censor library materials", though many individuals feel that selective purchasing of titles for a library's collection is by its very nature a limited form of "censorship". Nonetheless, one should keep in mind that librarians have always worked in an environment which is replete with implicit censorship: e.g., publishers reject manuscripts and libraries have selection criteria for published works. What, of course, is forbidden in our constitutional republic, is that the US Congress should be censors. Nothing forbids Congress from allowing individuals a freedom to censor.

The US Congress clearly has a responsibility to provide for post offices and post roads as well as to provide copyright protections. Our move to our Age of Tele-communications does not require [2] an Amendment to the US Constitution after all; rather, the US Congress must meet its responsibility to move that postal service into tele-communications and to legislate those procedures (such as the proposal for the enhanced electronic postmark) which will ensure domestic tranquility. A correlative benefit should be the elimination of any perceived need to depend on the legal profession to redress perceived wrongs arising from electronically transmitted messages (or, e.g., from video-on-demand services); instead, a complaint registered with one's local 'PTT-master' within the resultant Enhanced PTT should suffice to right the wrong.

Similarly, copyright-infringement suits in the courts could be considerably alleviated.

Another corollary of the implementation of the enhanced electronic postmark deals with dishonesty in verbal/telephonic communications. Surely we can all see that the digitisation of verbal transmissions (e.g., "voice mail") will soon permit "electronic documentation" of unethical and/or dishonest verbal behavior, via the equivalent of an "electronic carbon copy": another welcome improvement in our times of a sensed decrease in ethical standards.

The security of information, whether that security be military, governmental, or commercial, will be, we feel, similarly enhanced by the implementation of this combination: a governmentally-secured electronic network and its intrinsic component , the enhanced electronic postmark.

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