Nova Law Review

Volume 8, *Issue* 3 1984 *Article* 8

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Abstract

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KEYWORDS: media, law, legal

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Introduction

Our age is noteworthy for the development of television and computers, media that transmit information over vast distances at electronic speed. In the mid-1400s, Gutenberg's invention of printing by moveable type was perceived to be equally miraculous and quickly became a powerful societal force.[1] Francis Bacon wrote that "we should note the force, effect, and consequences of inventions which are nowhere more conspicuous than in those three which were unknown to the ancients, namely, printing, gunpowder and the compass. For these three have changed the appearance and state of the whole world."[2] One rarely-noticed way in which printing changed the world was through its influence on law. The spread of printing led to fundamental changes in legal doctrines, legal institutions, legal values and attitudes about law.[3] Printing technology helped create the modern legal order and has continued to be a major influence upon it.

We are living in an era in which the new electronic media are joining the traditional media of print, writing and speech and taking over some of their functions. This article is an exploration into the effects of these new communication technologies on law. Marshall McLuhan once noted that when "a new technology comes into a social milieu it cannot cease to permeate that milieu until every institution is saturated."[4] The following analysis suggests that, at least as far as law is concerned, McLuhan is probably correct. The new media can be expected to be used in ways that will cause a transformation in the legal order that has developed in the West in the last five hundred years.

To understand the depth of the changes likely to be caused in the

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1. E. EISENSTEIN, THE PRINTING PRESS AS AN AGENT OF CHANGE (1979).
2. F. BACON, NOVUM ORGANUM, APHORISM 129 (1620).
3. *See* Pt. III, notes 35-81 and accompanying text.
4. M. MCLUHAN, UNDERSTANDING MEDIA 161 (1964).

future by the electronic media of video and computers, it is instructive to pay some attention to the past and to examine how, over the last five hundred years, the technology of print was a major force in the shaping of the modern legal order. Such a perspective will provide insight into the significant differences between print and the new technologies and provide a conceptual model for understanding how communications in general are an influence on the legal process. This essay begins with a discussion of law and of media, in order to bring into a sharper focus frequently neglected aspects of each that are essential to the analysis to follow. Several theories which have been suggested to explain how the form in which a society communicates information can influence the values and institutions of that society are then discussed. These theories will then be applied to law, first to the period following the invention of printing, our last communications revolution, and then to the new media. The purpose of this endeavor is not merely to identify or predict specific changes, but to develop a model for understanding the process of change and how it occurs.

I. A Brief Overview of Law and Communications Research

> Several blind men attempt to investigate an elephant. One who has the trunk says, 'It is long and soft and emits air.' Another, holding the legs, says 'It is massive, cylindrical, and hard.' Another, touching the skin, 'It is rough and scaly.' All are misinformed. All generalize from partial knowledge.[5]

Law, like the elephant, can be viewed from various angles. Unfortunately, research into the influence of communications media on law has been as myopic as the elephant examination performed by the blind people. Parts of the relationship have been studied, but other areas remain unexplored. As with the various partial examinations of the elephant, the compartmentalized research which has been done has obstructed the development of a complete picture of how new communications technologies can change the nature and functions of the process of law in a society.

Analyses of law and the new media have focused almost exclusively on the new media's impact on either legal doctrines or legal insti-

5. R. ORNSTEIN, THE PSYCHOLOGY OF CONSCIOUSNESS 9 (1972).

tutions.[6] The vast majority of such studies, unfortunately, are likely to reveal only short term or surface changes in law. To identify changes that are likely to be more long lasting[7] and affect fundamental aspects of the process of law, it is necessary to define law more broadly than is generally done by communications researchers. As the following brief discussion indicates, there is more to the process of law than its rules or its institutions. The deepest change in law is likely to come about by the new media's impact on legal values, on individual habits of thought and on the social conditions that make law necessary for the resolution of conflict.

The initial impact of a new communications medium on law will be in the development of new rules to resolve problems caused by that medium. Today, "media law" is a growth area because attempts are being made to control the use of the new media. New modes of communication inevitably create problems and conflicts which the legal system is called upon to resolve. Thus copyright law developed after the invention of printing,[8] wiretapping laws followed shortly after the invention of the telephone,[9] and laws of privacy were enacted as a result

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6. The August, 1983 issue of the *Index to Legal Periodicals* contains a typical listing of computer law articles. Of nineteen citations in the "computer" category, ten concerned legal doctrine, e.g. "Legal Protection of Computer Software," and nine related to legal institutions, e.g. "New Age of Computers for your Law Office." The same dichotomy can be found in the "Radio and Television" or "Technology" listings.

7. Kenneth Boulding has reminded us that "predictions into the future, once we leave the realm of celestial mechanics, are notoriously unreliable. . . .Nevertheless, predict we must, because all decisions are about the future. When we are considering a rather stable and slow-moving aspect of society like the law, we have to think about quite long-run futures." Boulding, *Economics, Evolution, and Law*, in LAW AND THE AMERICAN FUTURE 30 (M. Schartz ed. 1976).

8. Copyright did not exist in the age of scribes and manuscripts. "To seek the origin of Copyright in times prior to the invention of Printing, would partake more of curious research than of useful investigation." LOWNDES, AN HISTORICAL SKETCH OF THE LAW OF COPYRIGHT 1 (2nd ed. 1842). The earliest copyright statute is the Statute of Anne in 1709.

> The inevitability of a need for protecting published works after Caxton introduced the printing press into England in 1476 makes it almost certain that, in a manner not entirely clear, members of the book trade had developed some form of copyright prior to receiving their charter of incorporation in 1557. The grant of a royal charter, however, gave added dignity and powers which the company used in giving definitive form to its copyright.

L. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 4 (1968).

9. "Within ten years after the invention of the telephone the American press

of the growth of newspapers.[10] The studies of these developments share a common approach. They look at or propose new legal doctrines—or rules of law—and relate these regulatory changes to social or technological change. They examine court decisions and statutes and attempt to evaluate the costs and benefits of applying old categories or of generating new ones.

The second large body of literature concerning law and communications focuses on the employment of new media within legal institutions.[11] Much of this literature describes experiments in which the new media are used in some novel way. Some research has attempted to assess whether these new uses will affect traditional legal policies.[12] In general, however, very little is currently known about what it will mean in the future to begin employing the new media in novel and widespread ways within our legal system.[13]

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featured stories of private telephone tapping to steal stock quotations or newspaper stories, and police listening-in during criminal investigations." A. WESTIN, PRIVACY AND FREEDOM 338 (1967). In Olmstead v. United States, 277 U.S. 438 (1928), the Supreme Court, with Justices Brandeis and Holmes dissenting, held that a wiretap was not a search and seizure covered by the Fourth Amendment. Forty years later, in Katz v. United States, 389 U.S. 347 (1967), the Court reversed itself on this issue. The first federal statute covering wiretapping was section 605 of the Communications Act of 1934.

10. R. SMITH, PRIVACY 3 (1979); *See also* Warren and Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193 (1890).

11. *See supra* note 6.

12. *See, e.g.*, Brakel, *Videotape in Trial Proceedings: A Technological Obsession?* 61 A.B.A. J. 956 (1975).

13. The new media's impact on legal processes is usually looked at both narrowly and with a short-term perspective and for this reason empirical evidence of dramatic shifts, even if they were occurring, would not be available. Probably the most discussed aspect of the new media concerns the use of television cameras in court. Yet, there are no studies on the effect of television coverage on viewers or how the public perceives televised news stories about courts. George Gerbner has written "no meaningful research has yet demonstrated the validity of arguments for television trials or the benefits from trials already televised." Gerbner, *Trial By Television: Are We At The Point of No Return?* 63 JUDICATURE 418 (1980). More importantly, the cumulative effect of the use of video technology within the institutions of law has not been a focus of research. What Samuel Brakel noted in 1975 is probably still true today. He wrote, concerning the use of videotape in trial proceedings, that:

> The effects are many and of various levels of significance and inevitability. While the precise ramifications are speculative it is not excessive to say that the overall impact of the video technology is of potentially revolutionary proportions. The fact that proponents or students of the technology have not identified, let alone examined and evaluated, most of these effects

The main defect with current research is its narrow conception or definition of law. Law is more than a set of rules or institutions. Viewed more broadly, law is a social process with values and philosophical attributes which have evolved into its current form over the course of several centuries. Law, Professor Harold Berman has noted, must be looked at "not as a body of rules, but as a process, an enterprise, in which rules have meaning only in the context of institutions and procedures, values, and ways of thought."[14] To understand why law is under stress and how the new media are contributing to this situation, it is important to do more than study particular laws or institutions. It is necessary to attend to fundamental aspects of legal process. As Alvin Toffler has recognized, "if we are to deal with a legal crisis, it seems to me we are going to have to probe more deeply. What is happening is deeper than most of our judges and lawyers, our presidents and our presidential candidates suspect. For what is happening is not merely the breakdown of law, but, more importantly, the breakdown of the underlying order upon which law is based."[15]

What is this underlying order or foundation upon which the process of law rests? Iredell Jenkens has written that,

> law is very like an iceberg; only one-tenth of its substance appears above the social surface in the explicit form of documents, institutions and professions, while the nine-tenths of its substance that supports its visible fragment leads a sub-aquatic existence, living in the habits, attitudes, emotion and aspirations of men.[16]

It is important, therefore, to determine how the values of the legal order and the habits of thought underlying the legal order, are influenced by processes of communication. Change which occurs in this facet of the legal process may occur slowly, but it will also be long lasting and will affect the subsequent development of both legal rules

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> demonstrates only the limitations of vision that accompany technological innovation.

Brakel, *supra* note 12, at 957.

14. H. BERMAN, LAW AND REVOLUTION 11 (1983).

15. Toffler, *The Future of Law and Order,* ENCOUNTER, July, 1973, at 15.

16. I. JENKINS, SOCIAL ORDER AND THE LIMITS OF LAW 9 (1980). Frederick Jackson Turner similarly recognized that "behind institutions, behind constitutional forms and modifications, lie the vital forces that call these organs into life and shape them to meet changing conditions." F. TURNER, THE FRONTIER IN AMERICAN HISTORY 2 (1920), in Miller, *Technology, Social Change and the Constitution,* 33 GEO. WASH. L. REV. 17 (1964).

and institutions.

Our legal system both fosters and reflects liberal legal values such as equality, privacy and other individual rights. Limiting state power and protecting individuals from abuses of state power are ideals which the legal system strives to achieve. What would be the effect on law if there were to be a substantial shift in public belief in such values? Is there a connection between the form of communication in a society and the values of that society? Such values change slowly and the process of change is often invisible, but such a shift is also more long lasting than any change in legal doctrine. It is, therefore, a better indication of a transformation of law than a change in doctrine would be.

Our system of law also requires individuals to have certain habits of thought, patterns of thinking and personality traits. This is a rarely noted aspect of law and would not be important unless the new media opened up the possibility of change here as well. What are these habits of thought that underlie the legal order? One example might be the ability to appreciate abstract concepts and engage in abstract thought. Law is an abstraction and our legal system requires individuals to be able to apply abstract rules to concrete situations. It requires comprehension of nontangible concepts such as "rights," "reasonable men" or "states of emergency." Similarly, our process of law places a premium on thinking linearly and on accepting procedural justice as a substitute for real justice. We assume that it is proper and desirable to treat everyone the same way, even though in actuality we are all different and in different circumstances.

Are the habits of thought that are fundamental to our legal culture undergoing change? Are we becoming more accepting of non-linear thought, for example, and is this related in some way to our new media? McLuhan and others have asserted that such change will take place and it is, therefore, an issue worth pursuing.[17] When new forms of technology are used in an institution or in a society they become agents for change. They can affect how individuals think and relate to other individuals and institutions.[18] While new legal doctrines are being generated to control obvious effects of the new media, the more subtle and long term effects may be ignored. The values and habits of thought of individuals do change over time and can lead to major changes in

17. M. McLuhan, *supra* note 4, at 303; T. Schwartz, The Responsive Chord (1973).

18. E. Havelock, Preface to Plato ix (1963); Goody and Watt, *The Consequences of Literacy*, in Literacy in Traditional Societies 55 (J. Goody ed. 1968).

societal institutions. As will be seen below, such changes probably occurred in the centuries following the introduction of print and contributed to the evolution of the modern legal order. To understand why such changes occured, the focus should not be on the doctrines of law but on the qualities of the new medium of communication, on the adoption of the new medium by legal institutions and on the use by citizens and groups of citizens of the new media.

II. The Nature of Media

Marshall McLuhan's assertion that "the medium is the message" brought him considerable publicity but did not increase public understanding of the important qualitative differences among media and the influence these differences may have on society.[19] Just as law is falsely perceived by the public to be a set of rules, communications media are mistakenly looked at in terms of their content and not in terms of the influential qualities of the particular medium. How people communicate is usually thought to be much less significant than what is communicated. Most research on television, therefore, has been concerned with identifying the nature of the information which is communicated and the effect of this information on attitudes and behavior.[20] This focus on the substance of programs rather than on the process of communication is a natural outgrowth of the common belief that means of

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19. *See* Wolfe, *What If He Is Right*, in THE PUMP HOUSE GANG 105 (1968); J. MILLER, MARSHALL MCLUHAN (1971); MCLUHAN, HOT AND COOL (G. Stearns ed. 1967); Casey, *Harold Adams Innis and Marshall McLuhan*, 27 ANTIOCH REV. 5 (1967).

20. The depiction on prime time television of most facets of American society has been studied to see whether the portrayal is accurate. *See, e.g.*, Gerbner, Gross, Morgan and Signorielli, *Health and Medicine on Television*, 305 THE NEW ENGLAND JOURNAL OF MEDICINE 901 (Oct. 1981); Gerbner, Gross, Morgan and Signorelli, *The Mainstreaming of America: Violence Profile No. 11*, 30 JOURNAL OF COMMUNICATIONS 10 (Summer 1980); Arons and Katsh, *How TV Cops Flout the Law*, SATURDAY REVIEW, March 19, 1977, at 11; Morgan and Gross, *Television and Educational Achievement and Aspirations*, in TELEVISION AND BEHAVIOR: TEN YEARS OF SCIENTIFIC PROGRESS AND IMPLICATIONS FOR THE 80's (D. Pearl, J. Lazar, L. Bouthilet eds. 1982).

The content of television news programs has been subjected to similar content analyses. *See, e.g.*, TELEVISION NETWORK NEWS: ISSUES IN CONTENT RESEARCH (W. Adams and F. Schreibman eds. 1978); W. ADAMS, TELEVISION COVERAGE OF INTERNATIONAL AFFAIRS (1982); W. ADAMS, TELEVISION COVERAGE OF THE NINETEEN EIGHTY PRESIDENTIAL CAMPAIGN (1983); Katsh, *The Supreme Court Beat: How Television News Covers the United States Supreme Court*, 67 JUDICATURE 6 (1983).

communication serve a function analogous to that of a moving company. Their job is to transport messages from sender to receiver. While they may affect the speed at which something is moved, they will have no effect on the item itself. Whether a car is shipped by truck, train, airplane or boat, for example will not change the car. Similarly, it is thought, whether one sends a message by letter, by telephone or by television does not affect the content of the message. Under this view, there is no need to study anything but the content of television programs. The medium seems to be irrelevant.

McLuhan tried to popularize a contrary point of view. In asserting that "the medium is the message," McLuhan argued that if one wants to understand the impact of a communication medium on a society, one should focus on the means of communication and not on the content of what is communicated by the medium.[21] For example, McLuhan claimed, one could have learned much more about post-Gutenberg society from looking at the form of the printed page and the impact of printing on the spread of information, than from knowing that the first book printed was the Bible. To use the moving company analogy again, if everything in the United States is shipped by truck, McLuhan might argue that one could learn more about the society by studying the nature of trucks than by knowing that some trucks carry cars and others carry television sets. It is quite probable that content has an impact but it is also true that study of the medium's influential qualities has been neglected. Until recently, for example, historians gave little attention to the changes brought about by the shift from manuscripts to printing.[22] Similarly, legal literature reveals very little understanding of the powerful influence that the invention of printing exerted upon law and a high level of unawareness of how the new media are likely to lead to change.[23]

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21. M. McLuhan, The Gutenberg Galaxy (1962); M. McLuhan, *supra* note 4, at 164.

22. E. Eisenstein, *supra* note 1, at 3.

23. Law librarians seem much more sensitive than legal historians to the influence of printing on law. *See* Graham, *Our Tong Maternall Marvelously Amendyd and Augmentyd: The First Englishing and Printing of the Medieval Statutes at Large, 1530-1533*, 13 U.C.L.A. L. Rev. 58 (1965); Graham and Heckel, *The Book That 'Made' the Common Law: The First Printing of Fitzherbert's La Graunde Abridgement, 1514-1556*, 51 L. Lib. J. 100 (1958); Hendeson, *Legal Literature and the Impact of Printing on the English Legal Profession*, 68 Law Lib. J. 288 (1975).

The most important recent analysis of law and the new media that does pay attention to the novel qualities of the new media is in a book by Pool. I. de Sola Pool,

The two most ardent proponents of the long term influence of communications media on society have been the late Marshall McLuhan and his colleague and mentor Harold Innis.[24] The first theme of Innis' writings is that the use of a new medium of communication alters the distribution of information in a society and, as a consequence, its social structure. The development of writing, for example, led to societies being more hierarchical, since writing was a skill that only persons in power were apt to possess.[25] Anthropologist Claude Levi-Strauss has noted that writing's first uses were "connected first and foremost with power. It was used for inventories, catalogues, censuses, laws and instruction. In all instances, whether the aim was to keep a check on material possessions or on human beings, it is evidence of the power exercised by some men over other men."[26] Information in such societies, therefore, tended to flow down from the top rather than from citizens and groups to other citizens and groups. The invention of printing and the subsequent spread of literacy caused information to be disseminated to broader sectors of the population. The change which resulted from information flowing across classes as well as from the upper class downward, led to challenges to the traditional social order. It encouraged the development of liberal political theories and to increased demands for the protection of rights and for limits on state power.

The second main theme in Innis' writings is the influence of media on the concepts of time and space. Innis categorizes both media and societies as being either time-oriented or space-oriented.[27] Speech, for example, is a time-oriented medium since it can be used to carry on a

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TECHNOLOGIES OF FREEDOM (1983). Pool's perception of the important qualities of the new media and of the qualitative difference between print and the new media is somewhat similar to my own. His focus however is on first amendment values of freedom of expression and how the new media have greater potential for increasing free expression. This article is broader in purpose and is intended to explore the relationship of the new media to basic facets of the process of law. *See also* Gibbons, *The Relationship Between Law and Science*, 22 IDEA 227 (1982); J. BING AND T. HARVOLD, LEGAL DECISIONS AND INFORMATION SYSTEMS (1977).

24. H. INNIS, EMPIRE AND COMMUNICATIONS (1950) & THE BIAS OF COMMUNICATION (1951).

25. "The sword and pen worked together. Power was increased by concentration in a few hands, specialization of function was enforced. . . . The written record signed, sealed, and swiftly transmitted was essential to military power and the extension of government." H. INNIS, EMPIRE AND COMMUNICATION 10 (1950).

26. THE FUTURE OF LITERACY 18 (R. Disch ed. 1973) (interview with Georges Charbonnier).

27. H. INNIS, THE BIAS OF COMMUNICATION 61-131 (1951).

tradition, but is a poor medium for traversing large distances. He argues, therefore, that oral societies were highly concerned with the local community and its history, traditions, religion, and culture. Space-oriented media, such as print, by contrast are light and easily transportable, and, therefore, they encourage expansion over larger areas, leading to the growth of secular states and a concern for the present and the future. For Innis, a society's media determines its fundamental values and forms of organization. Western society, which under this theory had originally been a time-oriented oral society, began to become space-oriented with the invention of writing, and became more space-oriented with the development of printing. The media with the greatest bias in terms of space are the electronic media. As will be discussed below, distance is not a limitation for such media.

McLuhan, unlike Innis, sees media more as devices which alter perceptual habits than as conveyors of information. He speculates that different media require the use of different senses and that, depending on which senses are used, individual and, ultimately, societal habits of thought are affected.[28] The tranformation of an oral culture into a literate one involves more, for McLuhan, than an increase in the amount of available information. When one talks to someone face to face, all of a person's senses may be used. Reading, however, uses only the eye. The effect of this, according to McLuhan, is profound. One who obtains information from a printed page rather than from another human being acquires new personality traits.[29] He learns to think abstractly, to "act without reacting," and to confront social issues and problems in a detached, uninvolved and impersonal way.[30] Typography, McLuhan asserts, separates the senses and, therefore, thought from feeling.[31] These traits contribute to society which values rationality, uniformity, individuality, and systematic and abstract thought.[32]

This effect of typography on personality and societal characteristics is heightened by the particular format of the printed page. The pages of the first printed books looked very much like those of manuscripts.[33] The typeface used was similar to a written script since that was what individuals were accustomed to reading. After a period of

28. MCLUHAN, *supra* note 4, at 59.
29. *Id.* at 33.
30. *Id.* at 157-8.
31. *Id.* at 59.
32. *Id.* at 262.
33. *See infra* note 63.

years, however, printed pages began to look different from manuscrpts. The printed page, like this one, acquired a uniform and orderly look to it. The societal effect of this change is that

> [O]nce a culture uses such a medium for a few centuries, it begins to perceive the world in a one-thing-at-a-time, abstract, linear, fragmented, sequential way. And it shapes its organizations and schools according to the same premises. The form of print has become the form of thought.[34]

There is one more explanation of the influence of media which is relevant to a discussion of the new media's cultural influence. This view holds that different media have different abilities to transmit some kinds of information and, therefore, affect the kind of information available in society. Abstract ideas and concepts, for example, are much more easily communicated in print than in televised form, whereas for portraying violent conflict or farcical humor, the opposite is true. Different media have different strengths. Each medium acts as a filter, letting some kinds of information through easily, some with difficulty, and some not at all. Depending on which media are dominant in society, certain kinds of information will be communicated more often and become important in society while others will become less so.

III. The Influence of Printing On Law

The following description of the impact of printing on law is a model for placing current technological developments in perspective. It provides insight into which changes will occur first and which later, and how deeply the institution of law may be affected. Most importantly, it provides a basis for understanding why the qualities of new communications media will have an impact on the process of law.

A. The Development of the Legal Doctrines of Censorship and Copyright

The two most obvious legal doctrines related to the development of printing were censorship and copyright.[35] The vast increase in the num-

34. Culkin, *A Schoolman's Guide to Marshall McLuhan*, in MCLUHAN: PRO AND CON 249 (R. Rosenthal ed. 1968).

35. *Id.* at 499. Copyright, if it is viewed as a bar on unrestricted publication, is related to censorship. Indeed the early grants of exclusive printing rights were intended

ber of books which were printed and circulated in the last half of the fifteenth century was quickly perceived to be a threat to those in power. Professor Ithiel de Sola Pool has noted:

> Before printing, there had been no elaborate system of censorship and control over scribes. There did not have to be. The scribes were scattered, working on single manuscripts in monasteries. Moreover, single manuscripts rarely caused a general scandal or major controversy. There was little motive for central control, and control would have been impractical. But after printing, Pope Alexander VI issued a bull in 1501 against the unlicensed printing of books.[36]

In 1529, Henry VIII issued a proclamation banning certain books which were odious to him or to the clergy who advised him.[37]

Copyright came into being after the invention of printing because the nature of authorship changed. A thirteenth century Franciscan, Saint Bonaventure, described four ways of making books:

> A man might write the works of others, adding and changing nothing, in which case he is simply called a 'scribe' (scriptor). Another writes the work of others with additions which are not his own; and he is called a 'compiler' (compilator). Another writes both other's work and his own for purposes of explanation; and he is called a "commentator' (commentator). . . . Another writes both his own work and others' but with his own work in principal place adding others' for purposes of confirmation; and such a man should be called an 'author' (auctor).[38]

Completely original works are not even part of this scheme. Elizabeth

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to protect the state and church from unwanted publications. In England in the sixteenth and seventeenth centuries,

> the legitimate book trade, like other trades in the middle ages, was put under the regulation of a city company, the stationers, while enforcement lay with the Privy Council, the Star Chamber, and (for theological matters) the High Commission, which took the view that all printing, however innocent, was crime unless the work had been previously licensed. Conversely, the government would sometimes give monopoly rights of printing works which it considered meritorious or useful, and in this way the beginnings of copyright appear.

Id. See also, L. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 6-7 (1968).

36. I. DE SOLA POOL, TECHNOLOGIES OF FREEDOM 14 (1983).
37. T. PLUCKNETT, A CONCISE HISTORY OF THE COMMON LAW 498 (1956).
38. E. EISENSTEIN, *supra* note 1, at 121-22.

Eisenstein has noted that "until it became possible to distinguish between composing a poem and reciting one, or writing a book and copying one. . .how could modern games of books and authors be played?"[39] Printing grew rapidly because it was possible to make money doing so. Authorship became important and protection of the author's work was made possible through copyright.[40]

The legal rules which developed as a response to the new medium of printing are interesting but they do not provide great insights into the subsequent development of law. In some countries, censorship laws were avoided or ignored by the printers. Numerous attempts in many countries to ban and censor texts, from the fifteenth to the eighteenth century, were often not successful because enforcement mechanisms were ineffective. In France, for example, book dealers and publishers did not encounter "too many risks because they knew how to take precautions and to secure themselves the necessary protection. There was no police force, legal procedures were very complicated and the King himself was not always inclined to act harshly."[41] When harassment was successful, printed works were smuggled in from outside the country. Febvre and Martin's study of the French book trade, for example, showed that

> [f]orbidden tracts and pamphlets were smuggled into France with ease, even into the goals where the Huguenots were imprisoned. Everywhere underground organizations formed to trade in illegal books. Often the officials of the Booksellers' corporations whose job it was to inspect imported crates of books were accomplices in the trade. In practice they took action against smugglers only when they had no choice in the matter. How, in any case, particularly given the administrative limitations of the governments of the period, could one hope to put a stop to the smuggling of books, which were small objects and easily concealed? Consequently the prime outcome of the policy of rigorous offical censorship was the establishment, around the French borders in the 18th century, of a series of printing businesses producing pirated editions and editions of banned books in complete freedom. The works of the *philosphes* were printed by these firms. Sometimes indeed the Chancellor had

39. *Id.*

40. As noted earlier, control over publication prior to enactment of the Statute of Anne in 1709 was given to the printing company and the publisher, therefore, held the copyright. The Statute of Anne for the first time allowed for copyright to be in the name of the author. L. PATTERSON, COPYRIGHT IN HISTORICAL PERSPECTIVE 5 (1968).

41. L. FEBVRE & H. MARTIN, THE COMING OF THE BOOK 300 (1976).

> the disagreeable surprise of discovering his coachman bringing pernicious books to Paris concealed in his own carriage. Soon, under Malesherbe's influence, the officials in charge of censorship sought to relax the regulations, granted tacit permission for the publication of certain books and were tolerant in other ways. It is evident that official censorship as it was then understood had proved to be ineffectual.[42]

What the history of censorship laws suggests is that during the early period when censorship laws were common, the power of the state, as embodied in these laws, was struggling with the power of the medium. Focusing merely on the laws provides little basis for predicting future changes, such as the development of first amendment values, whereas a focus on the qualities of the medium, on the behavior of the printers, and perhaps on the law enforcement process, might suggest the course of future developments. The sixteenth and seventeenth century nation state was dealing with a medium that was to prove to be more powerful than it was.

B. Printing and Changes in Legal Institutions

Less noticeable but more important were changes that occurred in legal institutions. The almost immediate affinity between law and print and the willingness of the law to employ the technology of print, is striking. William Caxton printed the first book in England in 1476.[43] Five years later the first law books were printed and in 1485 the printing of parliamentary session laws began.[44] The first printing of law books began a process that was to make the printed law book a central feature in the modern paradigm of law. The printing of law books

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42. *Id.* at 246-7.

43. Graham, *supra* note 23, at 58.

44. *Id.* In France, religious works comprised the largest category of books printed before 1500. This was not surprising since most readers were clerics. In the first decades of the sixteenth century, however, the percentage of religious works declined, and the proportion of classical and legal texts increased. An analysis of who owned a library during this period suggests the effect of printing not only on law but on the secularization of society:

	Lawyers	Churchmen
1480 - 1500	1	24
1501 - 1550	54	60
1551 - 1600	71	21

L. FEBVRE & H. MARTIN, *supra* note 41, at 263.

gradually turned the law library into as central a legal institution as the courthouse.[45] The printed book gradually became the repository of law and, in this country at least, the library became the heart of the modern law school. Christopher Columbus Langdell, the founder of modern legal education, was very sensitive to this point when he noted that "law is a science, and that all the available materials of that science are contained in printed books. . .law can only be learned and taught in a university by means of printed books. . .printed books are the ultimate sources of all legal knowledge."[46]

Printing technology, through the creation of case reporters, has dominated legal education in this country for the past one hundred years. It has prompted the analysis of and reliance upon precedent in ways not previously possible. One could simply not have had a system of precedent in a society that relied solely on writing. In a study of one of the earliest printed digests, Howard Jay Graham and John Heckel stated:

> The earliest digesters, with their printers, are the prophets and unsung heroes of the Common Law. It is strange more has not been made of their role and achievements. We can see very clearly today that it was in part because Nicholas Statham, Sir Anthony Fitzherbert, and later, Sir Robert Brooke, abstracted the "cases of the yeres," roughly ordered them by subjects, reduced practitioners' colloquies to procedural guides and principles, that English lawyers got to searching their books for *rules*, thinking more and more in terms of judicial *precedent* rather than in the old terms of judicial consistency, writs, cases and forms of actions. Fortuitiously, printing made these first crude digests widely available at the very time English law was undergoing its heaviest challenge from the Continent. It doubtless would be an exaggeration to say that the Common Law was "saved" by printing. But certainly the Common Law as device, symbol, and system was in considerable part a product of its own compilation, ordering and improved distribution. During the crucial early Tudor period, in particular, printing and simpler indexing gave reader access, coherence and form; they accelerated future growth no less than did practice and

45. Christopher Columbus Langdell wrote that "We have also constantly indicated the idea that the library is the proper workshop of professors and students alike; that it is to us all that the laboratories of the university are to chemists and physicists, the museum of natural history to the zoologists, the botanical garden to the botanists." Langdell, *Harvard Celebration Speeches*, 3 LAW Q. REV. 123, 124 (1887).

46. *Id.*

utility.[47]

C. The Influence of Printing on Values, Habits of Thought and Social Change

In her recent work, *Printing As an Agent of Social Change*, Elizabeth Eisenstein asserts that printing made possible the Protestant Reformation of the sixteenth century,[48] the Scientific Revolution of the seventeenth century[49] and preserved the contributions of the earlier Renaissance in a way that scribes would not have been able to do.[50] Her analysis, along with the theories of Innis and McLuhan, explain many of the underlying changes in values which printing caused and which led to important changes in law.

1. *Flow of Information: Challenges to Authority*

Printing caused a radical change in the number of books produced and in the distribution of books. Clapham has asserted that "[a] man born in 1453, the year of the fall of Constantinople, could look back from his fiftieth year on a lifetime in which about eight million books had been printed, more perhaps than all the scribes of Europe had produced since Constantine founded his city in A.D. 330."[51] Other estimates assert that twelve to twenty million books were printed before 1500 and that one hundred and fifty to two hundred million copies were printed in the sixteenth century.[52] This was a revolutionary change compared to what had existed previously. Equally important, it made possible the spread of information in previously unforeseen

47. Graham and Heckel, *supra* note 23, at 101. There are substantial differences between modern and medieval attitudes toward precedent, some of which can be related to differences between writing and print. For a discussion of how the authority of prior cases has changed over the centuries, see T. PLUCKNETT, A CONCISE HISTORY OF THE COMMON LAW (1956); A. HOGUE, ORIGINS OF THE COMMON LAW (1966); C. ALLEN, LAW IN THE MAKING (1964); V. CAENEGAM, THE BIRTH OF THE ENGLISH COMMON LAW (1973).

48. E. EISENSTEIN, *supra* note 1, at 303-13.

49. *Id.* at 453-516.

50. *Id.* at 163-302.

51. CLAPHAM, *Printing*, in A HISTORY OF TECHNOLOGY FROM THE RENAISSANCE TO THE INDUSTRIAL REVOLUTION 377 (C. Singer, E. Holmyard, A. Hall, and T. Williams eds. 1957).

52. L. FEBVRE & H. MARTIN, *supra* note 41, at 262.

ways.[53]

Legal information, too, began to circulate in new ways. In England, in the mid-1500s, "[t]he crucial acts of the reformation parliament were not only printed, published and proclaimed, but posted in every parish. . . ."[54]

> Literate Englishmen now had what learned judges and serjeants even had lacked in Fortescue's and Littleton's time: ready access and reference to the texts of statutes on which their cases and problems turned. To encounter and reread Professor Plucknett's shocking account of what the scarcity of manuscript copies of the statute law had meant in the fourteenth and fifteenth centures is to grasp something of the Tudors' excitement, relief, and sense of wonder, at the Great Books: 300 years of the reigns, councils, Parliaments, statutes, in full sweep. In English, tabled by chapters. Magna Carta and the Charter of the Forest "thirty times comfirmed," as Coke later would observe in an extraordinary understatement. (Actually the number was 44 and the reconfirmations become strikingly evident, even in Redman's Tabula.) The *Great Boke* and *The Boke of Magna Carta* thus were powerful factors in creating the Tudor image and tradition of constitutionalism. . . ."[55]

Martin Luther's challenge to the authority of the Catholic Church, which was fostered by print, was later followed by a secular challenge to authority, also encouraged by print. The increase in the spread of

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53. When Luther proposed debate over his Ninety-Five Theses his action was not in and of itself revolutionary. It was entirely conventional for professors of theology to hold disputations over an issue such as indulgences and 'church doors were the customary place of medieval publicity.' But these particular theses did not stay tacked to the church door (if indeed they were ever really placed there). To a sixteenth century Lutheran chronicler, 'it almost appeared as if the angels themselves had been their messengers and brought them before the eyes of all the people.' Luther himself expressed puzzlement, when addressing Pope Leo X six months after the initial event:It is a mystery to me how my theses, more so than my other writings, indeed, those of other professors, were spread to so many places. They were meant exlusively for our academic circle here. . . . They were written in such a language that the common people could hardly understand them. They. . . .use academic categories. . . .

E. EISENSTEIN, *supra* note 1, at 306-7.

54. Graham, *supra* note 23, at 77.

55. *Id.* at 93.

information provided access to information and promoted consciousness of rights and other ideals of the liberal legal order.[56]

2. *Time and Space: Preserving and Distributing Information*

The Lutherian example indicates that print was more successful than writing in overcoming problems of distributing information over wide areas. "Printing made it possible for the first time to publish hundreds of copies that were alike and yet might be scattered everywhere."[57] Print also had considerable advantages in preserving texts over time. This was very different from scribal culture "where every copy was unique, with its own variations."[58] In such a culture, it was impossible to be certain what the original author had written. The more a book was copied, the less authentic it became.[59]

How did printing preserve the past? Thomas Jefferson once wrote:

> Very early in the course of my researches into the laws of Virginia I observed that many of them were already lost, and many more on the point of being lost, as existing only in single copies in the hands of careful or curious individuals, on whose deaths they would probably be used for waste paper. . . .How many of the precious works of antiquity were lost while they existed only in manuscript? Has there ever been one lost since the art of printing has rendered it practicable to multiply and disperse copies? This leads us then to the only means of preserving those remains of our laws now under consideration, that is, a multiplication of printed copies.[60]

Thus, printing preserved the past and created continuity by making valuable data public, rather than secret. This "ran counter to tradition, led to clashes with new censors, and was central both to early modern science and to Enlightenment thought."[61] The more permanent quality of print fostered notions of stability, consistency and predictability. These values, in turn, can be related to belief in the concept of rights. As Eisenstein notes,

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56. *See infra* notes 70-81 and accompanying text.
57. SARTON, *The Quest for Truth: Scientific Progress During the Renaissance*, in THE RENAISSANCE: SIX ESSAYS 66 (1962).
58. I. DE SOLA POOL, *supra* note 23, at 213.
59. PRINTING AND THE MIND OF MAN, xix (J. Carter, P. Muir eds. 1967).
60. E. EISENSTEIN, *supra* note 1, at 116.
61. *Id.*

> [i]n France, also, the 'mechanism by which the will of the sovereign' was incorporated into the 'published' body of law by 'registration' was probably altered by typographical fixity. It was no longer possible to take for granted that one was following 'immemorial custom' when granting an immunity or signing a decree. Much as M. Jourdain learned that he was speaking prose, monarchs learned from political theorists that they were 'making' laws. But members of parliaments and assemblies also learned from jurists and printers about ancient rights wrongfully usurped. Struggles over the right to establish precedents became more intense, as each precedent became more permanent and hence more difficult to break.[62]

Most importantly, by creating identical standardized copies that could be available everywhere, printing fostered notions of equality. Individuals in different places could be aware of treatment that others were receiving in fairly distant places. Particularly as court decisions began to be printed and distributed, pressures arose for national uniformity and equal treatment regardless of place. This kind of uniformity could not be expected when manuscript copies were few and the copies that did exist were often slightly different from one another. In summary, the ability of printing to both expand the spatial distribution of information and preserve the past, gave print many advantages over writing. These qualities created new patterns of information flow, fostered liberal legal values and led to the development of the legal institutions with which we are familiar.

3. *Changes in Perceptual Habits*

Printing not only affected the flow of information but changed the image one perceived while reading.[63] The first printed books looked very much like manuscripts. The typeface used was similar to a written

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62. *Id.* at 119.

63. The earliest incunabula looked exactly like manuscripts. The first printers, far from being innovators, took extreme care to produce exact imitations. The 42-line Bible for example was printed in a letter-type which faithfully reproduced the handwriting of the Rhenish missals. . . .How could they have imagined a printed book other than in the form of the manuscripts on which they were in fact modeled? And would not the identity of the book and manuscript be the most obvious proof of their technical triumph, as well as the guarantee of their commercial success?

L. FEBVRE & H. MARTIN, *supra* note 4, at 77-8 (1976). *See also,* E. GOLDSCHMIDT, THE PRINTED BOOK OF THE RENAISSANCE 37 (1966).

script. After a period of years, however, printed pages began to look very different from a page of manuscript. Communications theorist John Culkin illustrated the impact of this new uniform image on the perceptual habits of readers:

> While lecturing to a large audience in a modern hotel in Chicago, a distinguished professor is bitten in the leg by a cobra. The whole experience takes three seconds. He is affected through the touch of the reptile, the gasp of the crowd, the swimming sights before his eyes. His memory, imagination, and emotions come into emergency action. A lot of things happen in three seconds. Two weeks later he is fully recovered and wants to write up the experience in a letter to a colleague. To communicate this experience through print means that it must first be broken down into parts and then mediated, eyedropper fashion, one thing at a time, in an abstract linear, fragmented, sequential way. That is the essential structure of print. And once a culture uses such a medium for a few centuries, it begins to perceive the world in a one-thing-at-a-time, abstract, linear, fragmented, sequential way. And it shapes its organizations and schools according to the same premises. The form of print has become the form of thought.[64]

It is, unfortunately, impossible to prove whether or not the new uniform image of the printed page has a major influence on thought and behavior. McLuhan, the most famous advocate of this theory, was an insightful, provocative and witty writer, but was not always historically accurate in the examples he provided in support of his thesis. There is, nevertheless, something striking about the theory for anyone interested in the history of law. Some of the main qualities of printed words, such as their uniformity and repeatability, and the values that Culkin and McLuhan closely tie to a print based society, such as rationality, objectivity, and consistency, are also central ideals of the liberal legal tradition.

The appeal of this argument is made even stronger by looking at other changes involved in the shift from the written to the printed word. Changes occurred not only in the appearance of the page, but in the organization of books. Printers were much more involved in indexing, cataloguing and cross-referencing works than were scribes:

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64. Culkin, *A Schoolman's Guide to Marshall McLuhan*, in McLUHAN: PRO AND CON 249 (R. Rosenthal ed. 1968).

> The systematic arrangement of titles; the tables which followed strict alphabetical order; the indexes and cross-references to accurately numbered paragraphs all show how new tools available to printers helped to bring more order and method into a significant body of public law. Until the end of the fifteenth century, it was not always easy to decide just 'what a statute really was' and confusion had long been compounded concerning diverse 'great' charters. In 'Englishing and printing" the 'Great Boke of Statutes 1530-1533' John Rastell took care to provide an introductory 'Tabula': a forty-six page 'chronological register by chapters of the statutes 1327 to 1523.' He was not merely providing a table of contents; he was also offering a systematic review of parliamentary history—the first many readers had ever seen.[65]

4. *The Communication of Abstract Ideals*

Print is an ideal medium for fostering both the habits of thought and the values of a liberal legal order. As noted earlier, different media have different strengths and abilities to communicate information of various kinds. Print is the most suitable medium for communicating law's abstract ideals and for encouraging abstract thought. The abstract concepts of law, while they originated in verbal thought, have been preserved and communicated in print. For citizens to accept law as a legitimate power requires, as political scientist Adelaide Villmoare has noted, "an underlying faith that the arbitrariness of humankind can be constrained to some degree by the rule of law."[66] Thus, what most people mean when they say that they believe in law or in the rule of law is that they believe that abstract and intangible rules can determine the outcome of individual disputes. They assume that when conflict occurs, already-existing rules can be consulted and used to resolve the dispute. Conversely, this means that if disputes are settled on a totally ad hoc basis with no reference to rules, the process of conflict resolution would be different from law. Theoretically, the legal model requires that "if a decision is to be rational it must be based upon some rule, principle, or standard. If this rule, principle, or standard is to make any appeal to the parties it must be something that pre-existed the decision."[67] Alternative systems might rely on custom, compromise,

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65. E. EISENSTEIN, *supra* note 1, at 105.

66. Villmoare, *The Judiciary in the Context of the State*, 4 ALSA FORUM 9 (June 1979).

67. Fuller, *The Forms and Limits of Adjudication*, in THE LEGAL PROCESS 421

discussion, force, or any technique other than reliance upon pre-existing rules. They might or might not create more desirable outcomes than law. What is certain, in theory at least, is that they would be distinguishable from law as we know it today.

Respect for this idea of law is so traditional in our society that it is often forgotten what habits of thought and beliefs are required before a legal order can develop. One of these is belief in the power of abstract rules. For a society to have a legal system, one scholar has written, there must be a "belief in the power of certain words, put certain ways, to bring about certain effects denominated as legal. This kind of magic is necessary if law is to work."[68] This "kind of magic" can only occur if the words have been put in tangible form, either in writing, or, more effectively, in print. As Robert Pirsig has noted,

> in this culture, a court of law can ask a witness to tell 'the truth, the whole truth, and nothing but the truth, so help me God,' and expect the truth to be told. But one can transport this court to India, as the British did, with no real success on the matter of perjury because the Indian mythos is different and the sacredness of words is not felt in the same way."[69]

The differences between writing and print suggest a major transformation in law during the centuries following the introduction of printing. In addition to the examples just provided of changes in the fifteenth, sixteenth and seventeenth centuries, a brief look at the analysis in Roberto Unger's *Law in Modern Society*[70] provides additional confirmation of the link between printing and law. Although Unger makes no mention of the invention of printing or its impact on legal thought or institutions, his central thesis can provide an excellent context for ascertaining some of the links between law, printing, and other communications media.

Unger contrasts three forms of law. The first, "customary," is informal.[71] Individuals in a group interact with one another guided by common expectations about what kind of conduct is proper and desirable. There is no separate body whose only function is to make rules.

(H. Hart and A. Sacks eds. 1958).

68. Berman, *The Background of the Western Legal Tradition in the Folklaw of the Peoples of Europe*, 45 U. CHI. L. REV. 563 (1978).

69. R. PIRSIG, ZEN AND THE ART OF MOTORCYCLE MAINTENANCE 344 (1974).

70. R. UNGER, LAW IN MODERN SOCIETY (1976).

71. *Id.* at 50.

The group as a whole develops understandings about proper standards of behavior. There is no written code. The second form of law, "bureaucratic," has "explicit rules established and enforced by an identifiable government."[72] Law, in the bureaucratic society, is "deliberately imposed by government rather than spontaneously produced by society."[73] Unlike customary law, a bureaucratic society has a centralized authority which has most of the power in the society.

Unger's third concept of law is labeled the "legal order."[74] Like the bureaucratic form, it is characterized by the existence of an identifiable centralized government that establishes and enforces explicit rules. In addition, however, law in the legal order is both general and autonomous. It is general in the sense that legal equality is presumed to exist among citizens. The law is "expected to address broadly defined categories of individuals and acts and to be applied without personal or class favoritism."[75] The law is autonomous in that there is a body of rules which is more than a "mere restatement of any identifiable set of non-legal beliefs of norms, be they economic, political, or religious."[76] The law is secular, with special institutions to resolve disputes and interpret law, and a separate legal profession.

The "legal order," according to Unger, developed for the first time in history in Western Europe during the last few centuries. Its emergence became possible, he argues, because for the first time two social conditions existed:

1. Society was pluralistic, with no group having any assumed right to rule.[77] Competition existed among social and economic groups and there was a dwindling sense of community among the society's members. As a result, there was continuing level of societal instability.

2. A belief existed in a "higher universal or divine law as a standard by which to justify and to criticize the positive law of the state."[78] Systems more just than the existing order were believed to be possible.

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72. *Id.*
73. *Id.* at 51.
74. *Id.* at 52.
75. *Id.* at 53.
76. *Id.*
77. *Id.* at 66-76.
78. *Id.* at 66.

These two forces created the basis for a legal system which balanced competing interests and limited the power of the majority.[79] In this new system, citizens could make claims on the state through formal specialized institutions. The law, which was made by humans, could now be challenged and changed by them.

For a variety of reasons, it is not surprising that the emergence of the "legal order" paralleled the development and spread of printing. First, printing helped create some of the political and social conditions Professor Unger thought necessary for the development of a liberal legal order. For example, the spread of printing quickened the development of national languages and spurred the formation of nation

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79. Professor Harold Berman's recent study of the origins of the Western legal tradition, LAW AND REVOLUTION (1983), has a different emphasis from Unger and from the analysis presented here. Berman asserts that, "in the West, modern times—not only modern legal institutions and modern legal values but also the modern state, the modern church, modern philosophy, the modern university, modern literature, and much else that is modern—have their origin in the period 1050-1150. . ." *Id.* at 4.

> In the late eleventh, the twelfth, and the early thirteenth centuries a fundamental change took place in Western Europe in the very nature of law both as a political institution and as an intellectual concept. Law became disembedded. Politically, there emerged for the first time strong central authorities, both ecclesiastical and secular, whose control reached down, through delegated officials, from the center to the localities. Partly in connection with that, there emerged a class of professional jurists, including professional judges and practicing lawyers. Intellectually, western Europe experienced at the same time the creation of its first law schools, the writing of its first legal treatises, the conscious ordering of the huge mass of inherited legal materials, and the development of the concept of law as an autonomous, integrated, developing body of legal principles and procedures.

Id. at 86. The cause of this revolution was Pope Gregory VII who, in the 1070s, proclaimed the legal supremacy of the Pope over all Christians and over all secular authorities.

Berman's focus is on the centuries before printing and, while he recognizes that transformation in law was caused by later events, such as the Reformation, he traces the seeds of change to the earlier period. In terms of the analysis and perspective presented here, the most unfortunate omission in *Law and Revolution* is the lack of recognition given to the limitations of writing. The revival of law in the eleventh century centers around a discovery of a manuscript of Justinian's code and the development of law in the centuries following is derived from analysis and study of this text. Berman may be correct that the seeds of Western law were planted in the late eleventh century and he provides a great deal of interesting information on scribal culture. Ultimately, however, further change would have been impossible, as the limitations of writing as a form of communicating information were reached. *Id.*

states.[80] Printing also assisted the democratization of knowledge and political institutions. As Daniel Boorstin has noted, because of printing, "the knowledge of the few became the knowledge of the many, with the effect, as Carlyle observed, of 'disbanding' hired armies, and cashiering most kinds and senates and creating a whole new democratic world."[81] The level of political instability which made a liberal legal order seem desirable occurred in part as a result of the spread of information which printing made possible. Unger's analysis is important because it emphasizes that law today is very different from what it once was. The bureaucratic form of law became the legal order as a result of several changes in societal values and institutions. If similarly fundamental changes are occurring today, it is important to understand why they are taking place, see how they are related to the new communications technologies, and assess whether a new form of law is likely to develop.

IV. The Influence of New Media on Law

The foregoing analysis suggests that both law and society underwent a broad transformation following the invention of printing. Changes in rules, institutions and values led to a tranformation that might be labeled revolutionary.[82] Are comparable large scale changes

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80. S. STEINBERG, FIVE HUNDRED YEARS OF PRINTING 117 (1955).

81. Address by Dr. Daniel Boorstin, Dedication of the National Humanities Center at North Carolina Research Triangle Park (April 16, 1977).

82. Clearly, the "revolution" was not violent and, therefore, falls outside the definition of "revolution" that is often used. Berman, for example, states that:

> The history of the West has been marked by recurrent periods of violent upheaval, in which the preexisting system of political, legal, economic, religious, cultural, and other social relations, institutions, beliefs, values, and goals has been overthrown and replaced by a new one. There is by no means a perfect symmetry in these periods of great historical change; yet there are certain patterns or regularities. Each has marked a fundamental change, a rapid change, a violent change, a lasting change, in the social system as a whole. Each has sought legitimacy in a fundamental law, a remote past, an apocalyptic future. Each took more than one generation to establish roots. Each eventually produced a new system of law, which embodied some of the major purposes of the revolution, and which changed the Western legal tradition, but which ultimately remained within that tradition.

H. BERMAN, *supra* note 79, at 19. The transformation discussed in this essay is a "silent revolution." Kenneth Boulding has written that such revolutions

> are not to be confused with those storms on the surface of history generally called 'revolutions' which raise a great deal of dust and cause a lot of

likely to occur in our society due to the introduction of the electronic media? The following discussion is intended more to identify critical areas and issues which must be addressed than to predict specific changes. Our era, like that following the invention of printing, may be one of "seeming continuity with radical change,"[83] where important developments may be unnoticed. Some of the outcomes suggested below are admittedly speculative, and some will be influenced by policy choices that our society will make. To make the wisest decisions in these areas, it is important to be aware of the underlying reasons for change.

A. Changes in Legal Doctrine

Changes in traditional legal doctrines are the least important indicator of future change. They are usually responses to the first uses of the new medium. They often occur with little understanding of the qualities of the new media or of likely future uses that will be different from the initial use.[84] Copyright law is the clearest example of an area of law that is fighting for its continued existence and is destined to lose. Copyright is a technique of regulation that is ideally suited to a me-

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> trouble but which generally end up with the same old things called by a new set of names. The ecological revolutions in society are the silent revolutions, often taking centuries to accomplish their course. They are the revolutions in ideas, in ideals, in techniques, which carry a society from one way of life to another.

K. BOULDING, THE ORGANIZATIONAL REVOLUTION xxvii (1968). *See also* T. KUHN, THE STRUCTURE OF SCIENTIFIC REVOLUTIONS 136 (1970), E. HAVELOCK, *supra* note 18, at ix.

83. E. EISENSTEIN, *supra* note 1, at 51.

84. Ithiel de Sola Pool has summarized the legal system's understanding of the new media as follows:

> In each of the three parts of the American communications system—print, common carriers, and broadcasting—the law has rested on a perception of technology that is sometimes accurate, often inaccurate, and which changes slowly as technology changes fast. Each new advance in the technology of communications disturbs a status quo. It meets resistance from those whose dominance it threatens, but if useful, it begins to be adopted. Initially, because it is new and a full scientific mastery of the options is not yet at hand, the invention comes into use in a rather clumsy form. Technical laymen, such as judges, perceive the new technology in that early, clumsy form, which then becomes their image of its nature, possibilities, and use. This perception is an incubus on later understanding.

I. DE SOLA POOL, *supra* note 23, at 7.

dium such as printing where the location of making the copies can be identified.[85] Copying machines and videotape recorders have presented the most publicized threats to copyright law[86] but the computer, which will essentially provide each household with a copying machine, will provide the final blow to the copyright system of regulation. Yet, the demise of copyright,[87] or, for example, the recent rise in privacy legislation[88] in response to the new media, do not really help us in our search for what the role of law will be in the future. To understand whether law will be more or less important in the future as a tool for resolving conflict, the focus needs to be elsewhere.

B. The Effect of New Media on Legal Institutions

The effect of the new media on legal institutions will be visible less quickly than the impact on legal doctrine. In addition, the most quickly visible changes may not be the most important ones. For example, the struggle over whether television cameras should be allowed into the courtroom has received much attention but may be less important than other uses of video technology, such as the use of videotaped testimony.

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85. Established notions about copyright become obsolete, rooted as they are in the technology of print. The recognition of a copyright and the practice of paying royalties emerged with the printing press. With the arrival of electronic reproduction, these practices became unworkable. Electronic publishing is analogous not so much to the print shop of the eighteenth century as to word-of-mouth communication, to which copyright was never applied.

Consider the crucial distinction in copyright law between reading and writing. To read a copyright text is no violation, only to copy it in writing. The technological basis for this distinction is reversed with a computer text. To read a text stored in electronic memory, one displays it on the screen; one writes it to read it. To transmit it to others, however, one does not write it; one only gives others a password to one's own computer memory. One must write to read, but not to write.

I. DE SOLA POOL, *supra* note 23, at 214.

86. Universal City Studios v. Sony Corp. of America, 480 F. Supp. 429 (D.C. Cal. 1980), *rev'd*, 659 F.2d 963 (9th Cir. 1981), *rev'd*, Sony Corp of America v. Universal City Studios, ___ U.S. ___, 104 S. Ct. 774 (1984); Encyclopedia Britannica Ed. Corp. v. Crooks, 447 F. Supp. 243 (W.D.N.Y. 1983).

87. I hope it is clear that changes in copyright law do not mean the end of reward for creative effort. Copyright will be replaced gradually by another form of regulation that is more in tune with the nature of the new media.

88. *See, e.g.*, Privacy Act of 1974, 5 U.S.C. § 522; Fair Credit Reporting Act, 15 U.S.C. § § 1681-1681(t).

Will the trial as a face-to-face coming together of the parties become even more rare than it is today? Print never completely replaced the trial or oral argument. Will these forums, which rely on our original medium of speech, be modified by video without an exhaustive analysis of what such a change implies?[89]

More basic, perhaps, is the effect of computerization of library resources[90] on precedent and the notion of the common law. Computerization of case reporters has occurred at a point in time when the growth of reporters threatens to become unmanageable.[91] A system of precedent will not function effectively when there are too few cases being decided and it also will not work when there are too many cases. In the past, the nature of printing technology imposed some limitation on how many cases could be printed and how quickly they would be published. The digest system made the whole process manageable. Where there are too many prior cases in an area and where cases are added to the data base much more quickly than in the past, unpredictability and instability will be the result. This will pose a challenge to the idea of precedent and to the foundation of the common law. Whereas print

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89. *See supra* note 13.

90. Taylor, *Legal Information Centers: The Electronic Law Libraries of the Future,* in CONFERENCE ON LEGAL EDUCATION IN THE 1980's 82 (1981).

91. *Law Libraries and Miniaturization,* 66 LAW LIB. J. 395 (1973). It is interesting that the West digest system was developed at the end of the nineteenth century at a time when "there was a feeling that the multiplication of law reports would one day destroy the law as it was known." Young, *A Look at American Law Reporting in the 19th Century,* 68 LAW LIB. J. 294, 304 (1975). The number of volumes of American case reports had increased from 18 in 1810 to 473 in 1836 to 3,800 in 1885. One commentator in 1882 wrote that

> [t]he ratio of increase in the published volumes is constantly accelerating. . . .That the number of courts whose opinions are being reported and the numbers of judges writing opinions are constantly increasing, is beyond doubt. . . .There are now two hundred and ninety-eight state and territorial judges, and eighty-two Federal judges,—in all, three hundred and eighty,—whose opinions are being regularly published. . . .And yet,. . .the system of law reporting may be said to be in its infancy. . . .Unless some means shall speedily be devised of checking this appalling number of publications, it is perhaps within the bounds of moderation to assert that lawyers now in practice at the bar may live to see the number of volumes. . .[in English] exceed twenty-thousand.

High, *What Shall Be Done With The Reports,* 16 AM. L. REV. 429, 434-35 (1882). The digests not only provided a solution to this problem but probably also subtly shaped the attitudes of generations of lawyers and law students about the degree of order and orderliness that existed in the legal system.

fostered the development of the idea of precedent, the use of computers may signal the erosion of this model of law.

The basic question is whether the computerization of cases and other material will ultimately reduce the authority of prior decisions and modify the idea of precedent. Common law attitudes toward precedent are not accepted in most of the world's legal systems and took several hundred years to develop in England. It is important to note that modern systems of precedent require two things: that we think in terms of being consistent with prior cases and that what is written by the judge in the printed decision by itself has authority to determine a later decision. The evolution of the common law involved the development of a system where prior cases become important and also a system, such as exists today, where the printed decision is important in itself. The authority of the printed decision, however, came much later than the idea of taking prior cases into account and involved a shift of thought in terms of what the prior case would stand for. In the early days, prior cases provided evidence of custom and it was custom that was considered most important. As Plucknett writes, "[i]n the Year Book period cases are used only as evidence of the existence of a custom of the court. It is the custom which governs the decision, not the case or cases cited as proof of the custom."[92] As we place more and more cases in the computer data base, and do this much faster than printing technology allowed, will what is retrieved have the same status and authority and be perceived in the same way as printed judicial decisions, which are retrieved from those fairly dignified looking books called reporters?

In answering this question, several other qualities of computers, in addition to the differenece in appearance between the book and computer, need to be considered. First, opinions are being added to the data base in greater and greater quantity. In future litigation, there will be more and more decisions on both sides of an issue, providing even more opportunity than there currently is for every party to a case to construct a legal argument supported by a host of cases. Second, cases are being added more quickly. Pressure will be exerted to use new cases, to continuously modify and to add to arguments in pending cases. At some point in this process the "myth of certainty"[93] will become more obviously a myth and the system's allegiance to precedent, a fragile house of cards, may disintegrate. Can the computer provide

92. T. PLUCKNETT, A CONCISE HISTORY OF THE COMMON LAW 347 (1956).
93. J. FRANK, LAW AND THE MODERN MIND 3-13 (1963).

an antidote or solution to prevent this from occurring? Can programs be developed to evaluate and reduce the amount of data that is retrieved from the data base? On one level, programs can assist the user to narrow the search for cases to something that is manageable for the user. But, since computers are capable of more impressive feats, programs will be designed to do more, to apply some rule to cases the program identifies as relevant.[94] In other words, if the model of storing decisions in a central data base continues, attempts will be made to employ the data manipulation function of the computer. At that point, when the process moves away from the current print model, some change in the law's attitude toward precedent will begin to change as well.

Third, computerization of law materials will probably broaden the range of materials users will come in contact with. Print made cases the center of the law collection and the digest system made the cases useable. Print has not dealt as efficiently with statutory or regulatory material.[95] They are more difficult both to locate and retrieve. These areas are increasingly important areas of law and the computer data bases can be expected to include them and make them as accessible as judicial decisions. This broadening of the reach of the legal researcher involves much more than a change in research techniques. It has the potential for creating competition for the case as the building block of the legal system.

Although the image of cases as the heart of the library may remain for some time, the fact is that the computerized law library is already quite different from the print library, and the differences will grow more noticeable as time passes. Although LEXIS and WESTLAW began by storing cases, they have greatly broadened the information accessible from their terminals. In addition to cases, for example, the LEXIS library includes access to DIALOG, a collection of 150 databases covering science, medicine, social science, current affairs and humanities, the National Automated Accounting Research System, and NEXIS, a full-text library of general and business publications. It is as if a variety of non-law libraries have been moved into the law library. As these sources of information are discovered, they

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94. Tyree, *Fact Content Analysis of Case Law: Methods and Limitations*, 22 JURIMETRICS J. 1 (1981); Tyree, *Can a 'Deterministic' Judge Overrule Himself?* 7 RUTGERS J. OF COMPUTERS, TECH. AND L. 381 (1980); D'Amato, *Can/Should Computers Replace Judges?* 11 GA. L. REV. 1277 (1977).

95. L. FRIEDMAN, A HISTORY OF AMERICAN LAW (1973).

will begin to be used more than they are today and, along with the regulatory and statutory material that will become accessible, will change the image and authority of the judicial decision.

Ithiel de Sola Pool notes a fourth aspect of computerizing information that is worth considering.

> One change that computers seem likely to cause is a decline of canonical texts produced in uniform copies. In some ways this change will signal a return in print to the style of the manuscript, or even to the ways of oral conversation. . . .A small subculture of computer scientists who write and edit on data networks like the Arpanet foreshadow what is to come. One person types out comments at a terminal and gives colleagues on the network access to the comments. As each person copies, modifies, edits and expands the text, it changes from day to day. With each change, the text is stored somewhere in a different version.[96]

The kind of future Pool envisions may portend a new attitude toward the authority or finality of decisions and toward the process of making decisions. The appearance of decisions in printed form, particularly Supreme Court decisions, emphasizes the idea that decisions are end points. Actually the decision is only an end point for the parties involved in the case. For the rest of us, every decision is a stopping point in a travel that includes the present case and future cases. It is a journey that never really ends. We perceive decisions as end points because it is convenient to do so and gives them authority they might not otherwise have. We should not assume that how we perceive decisions is inevitable. Rather, it is a culturally-based phenomenon that is partly related to print. If the method of recording cases, storing them and retrieving them changes, then the way they are perceived may change as well.

C. The New Media and Its Influence On Values, Habits of Thought and Social Change

1. *Flow of Information*

Assuming the existence of fairly unrestrictive governmental policies toward the new media, new patterns of communication between citizens and groups of citizens will begin to occur. The telephone and

96. I. DE SOLA POOL, *supra* note 23, at 213-14.

the postal service allow communication between two individuals. Computers allow for the sharing of information among much larger numbers of individuals in ways that are not now possible. New networks of communication will be created with information obtained by citizens being communicated to other citizens. Unlike broadcasting, which is a mostly hierarchical form of communication, microcomputers allow communication horizontally to other individuals or groups with similar interests. Until now, "[t]here has been no means for a *group* of people to adequately exchange information among themselves and reach decisions, other than to meet frequently face to face and talk it out."[97] This kind of change in the flow of information promises to lead to increased demands on the state to satisfy aggrieved parties and newly-formed interest groups. New "classes" can now be identified, whether they are owners of 1982 Chevrolets or purchasers of Cabbage Patch dolls. As grievances are identified and publicized, pressures for satisfying grievances will increase. There will be increased pressure to resolve such problems quickly.[98] The speedup of information thus poses a threat to the procedurally-oriented, methodical quality that is at the heart of law.

The analysis presented here leads to several conclusions that are different from most popular perceptions about the computer. Orwell's *1984* portrayed the technological era as one in which the state could control information and restrict the flow of information among citizens. The earliest uses of computers, which could be afforded only by governments, corporations, or other large groups and institutions, reasonably led to this conclusion. Fairly soon, however, this model will probably be outmoded. The computer is unlike a telephone, which was always a device for communicating between two individuals. Computers allow each individual to make his or her ideas available to others, to "publish" ideas in ways that were not previously possible. The model of the

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97. S. HILTZ AND M. TUROFF, THE NETWORK NATION: HUMAN COMMUNICATION VIA COMPUTER xxv (1978).

98. A taste of the future is provided by the Federal Trade Commission's (FTC) agreement with General Motors to turn one of its largest consumer injury cases over to volunteer arbitrators of the Council of Better Business Bureaus. The case involved 200,000 owners of General Motors' cars and trucks, suspected of having defective parts, who had spent $100,000,000 on repairs. The FTC, which was criticized by consumer groups for abandoning a practice to seek a single solution to a common consumer problem, stated that "the alternative to the agreement would have been at least another ten years of litigation with uncertain results." New York Times, November 18, 1983, at A36.

future is one in which information will be moving around the country, if not the globe, faster than ever before among individuals and groups who could not previously communicate with each other. States, corporations, and other societal institutions will indeed be able to collect information about individuals and organize it in ways that were not previously possible. Yet, individuals too will be able to collect, manipulate and communicate information in new ways. Orwell's fear was reasonable for the first stages of the computer revolution, perhaps, but not necessarily for later stages.

What impact will this have on traditional values? This analysis leads to the conclusion that it is not necessarily freedom that is in danger but values and concepts that we relate to freedom. The spatial bias of the electronic media, the emphasis on the present, and the quickening of the process of change pose a threat to the model of law which is slow,[99] methodical and relies on precedent. Print fostered the model of procedural justice, and of equal rights, but not of substantive equality. The pressures of the new media will be to demand actual equality. Law was often used to defuse conflict. Grievances were channeled into an institution that applied rules and appeared to be neutral. This model may be less satisfactory or workable in the future as "rights," "rules," and "neutrality" become less acceptable concepts.

Another effect of the speed with which information can now travel concerns privacy and its alter ego, secrecy. Privacy, as a concept, does seem endangered.[100] But privacy is also a fairly recent concept. It was not a concept that was familiar in oral cultures where everybody knew everyone else. Attempts to protect privacy, like attempts to maintain copyright, seem ultimately doomed to failure. The most that law might be able to achieve is to prevent the use of inaccurate information about individuals, but this is not the same as protecting an individual's privacy. The lack of privacy has a governmental counterpart in the lack of secrecy. Government officials have complained that it is almost impossible to keep a secret. It is, therefore, both individual and govenmental

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99. For an interesting consideration of law as theater and the problem of speeding up trials, see Ball, *The Play's the Thing: An Unscientific Reflection on Courts Under the Rubric of Theater*, 28 STANFORD L. REV. 81 (1975).

100. Miller, *Privacy in the Modern Corporate State*, 25 AD. L. REV. 231 (1973); Miller, *Privacy in the Corporate State: A Constitutional Value of Dwindling Significance*, 22 J. OF PUB. L. 3 (1973); Linowes, *Must Personal Privacy Die in the Computer Age?* 65 A.B.A. J. 1181 (1979); Washburn, *Electronic Journalism, Computers and Privacy*, 3 COMPUTER L. J. 189 (1981); Gordon, *The Interface of Living Systems and Computers: The Legal Issues of Privacy*, 2 COMPUTER L. J. 877 (1980).

information that is accessible and not easily controlled. This analysis suggests that it is not necessarily true that governmental power will increase as a result of the new media. What does seem likely is that demands for justice and social change will increase and, as a result, the level of social conflict will increase as well.[101] The legal mode of dealing with such a state of affairs seems dated and outmoded, not very well suited to social conditions of change and instability that are not even contained within the boundaries of the nation-state. As a result, new modes of conflict resolution can be expected to be developed to take their place alongside law.

2. *Time and Space*

The new media would, in Harold Innis' terms, have a very strong space bias.[102] Their strength is in communicating information over vast distances. Conversely, they are also relatively impermanent. These qualities too, will ultimately have important legal and social consequences. For example, the electronic media are able to tell us what is happening in some distant place and it does this very quickly. Our frames of reference have become expanded beyond national boundaries. As information flows across national boundaries in such quantity, some

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101. Goody and Watt's assessment of the differences between oral and literate cultures suggests a related reason for an increase in social conflict:

> The literate mode of communication is such that it does not impose itself as forcefully or as uniformly as is the case with the oral transmission of the cultural tradition. In non-literate society every social situation cannot but bring the individual into contact with the group's patterns of thought, feeling and action: the choice is between the cultural tradition—or solitude. In a literate society, however, and quite apart from the difficulties arising from the scale and complexity of the 'high' literate tradition, the mere fact that reading and writing are normally solitary activities means that in so far as the dominant cultural tradition is a literary one, it is very easy to avoid; as Bertha Phillpotts wrote in her study of Icelandic literature:
>
> Printing so obviously makes knowledge accessible to all that we are inclined to forget that it also makes knowledge very easy to avoid. . . .A shepherd in an Icelandic homestead, on the other hand, could not avoid spending his evenings in listening to the kind of literature which interested the farmer. The result was a degree of really national culture such as no nation of today has been able to achieve.

Goody & Watt, *The Consequences of Literacy*, in LITERACY IN TRADITIONAL SOCIETIES 59-60 (J. Goody ed. 1968).

102. *See supra* notes 24-34 and accompanying text.

kinds of new institutions will be necessary to mediate demands and problems. While printing assisted in the creation of the modern nation state,[103] the electronic media will likely lead to new institutions that are international in nature. One already clear example of an institution whose foundation is the ability of the computer to conquer distance is the multinational corporation.[104] Administering a corporate enterprise that has parts in distant places is now possible. While attempts are still made to treat such entities as if they were creatures of a single state or nation.[105] some new conception and treatment of the multinational corporation will ultimately evolve. As contact between individuals and groups in different countries increases, due to the capability of the computer to conquer distance, new relationships will evolve and experiments in structuring these relationships will develop. For example, the class of people injured by some product will quickly be identified as consisting of individuals living in different countries. The new "classes" of interest groups may also be international in nature, such as protestors for a nuclear freeze, and create new national and international pressures for approaches to resolving problems. Some of these approaches may be legal in nature. While traditional international law and legal tribunals have not been overwhelming successes, it may be that the necessary communications infrastructure for an effective international legal institution simply has not yet ever existed.

The impressive ability of the electronic media to conquer distance diverts attention from its main weakness, a quality of impermanence and tendency to focus on the present. Law is, of course, a process that insists on maintaining links with the past, with fostering continuity, consistency and predictability. Print played a pivotal role in developing a system with such values. The spatial bias of the new media will emphasize uniformity over space and should foster demands for equality over large areas. Print encouraged this, too, but could never do it as effectively as the electronic media are able to do. The effect of this change in focus will be to create additional pressures to change the traditions and goals of law.

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103. S. STEINBERG, FIVE HUNDRED YEARS OF PRINTING 117 (1955).

104. R. BARNET & R. MULLER, GLOBAL REACH 26 (1974).

105. Container Corp. of America v. Franchise Tax Bd., _ U.S. _, 103 S. Ct. 2933 (1983).

C. The Visual Image

Video and computer technology share the qualities already mentioned but differ in one major way. Video relies on pictures and the spoken word while computers still rely on reading. While both may use a television set to communicate information, the path from the set to one's brain is different. In his valuable book, *The Responsive Chord*, media consultant Tony Schwartz described the television image and the brain processes necessary to watch television:

> In watching television, our eyes function like our ears. They never see a picture, just as our ears never hear a word. The eye receives a few dots of light during each successive millisecond, and sends these impulses to the brain. The brain records this impulse, recalls previous impulses, and expects future ones. In this way we "see" an image on television.
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> Film began the process of fracturing visual images into bits of information for the eye to receive and the brain to reassemble, but television completed the transition. For this reason, it is more accurate to say that television is an auditory-based medium. Watching TV, the brain utilizes the eye in the same way it has always used the ear. With television, the patterning of auditory and visual stimuli is identical.[106]

Television can effectively communicate enormous amounts of information. The issue being raised here, however, concerns whether certain values are more difficult to transmit via television and whether certain forms of thought are conditioned merely by the frequent act of watching television. Print has acted as a catalyst and contributor toward the development of conceptual knowledge and allowed the seemingly unarbitrary categorization of knowledge, people, and actions by the legal system. The "myth of certainty,"[107] and the belief that law can be consistent, stable and predictable, are, as described earlier, to some extent functions of the fact that these ideas are generally learned from books. Acceptance of this model of law, it would seem, may be more difficult for a person whose

> mode of thinking is now in sync with his mode of perceiving. . . .When print dominated our communication environment, men sought conceptual knowledge about the world. To achieve this,

106. T. SCHWARTZ, THE RESPONSIVE CHORD 14-16 (1973).
107. J. FRANK, LAW AND THE MODERN MIND 3-13 (1963).

> sensory information had to be translated into a linear, cognitive mode. In our electronic communication environment no translation is necessary. A young person perceives sensory information a millisecond at a time, and he experiences life as a continuous stream of fleeting, millisecond events. In this way of life, involvement has greater value for young people that conceptual knowledge about the world.[108]

Recent psychological research on perception and behavior lends additional support to the movement away from print and toward a decibel culture."[109] Professor Robert Ornstein has written that "one of the most basic differences between individuals is between those who tend to employ the linear, verbal mode and those who are less verbal and more involved in spatial imagery."[110]Law emphasizes linear, verbal abilities.

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108. T. SCHWARTZ, *supra* note 105, at 111.

109. G. STEINER, IN BLUEBEARD'S CASTLE 116 (1971).

110. R. ORNSTEIN, THE PSYCHOLOGY OF CONSCIOUSNESS 39-40 (1972). Ornstein further explains that there is a neurological basis for these different modes of consciousness:

> The difference between the left and right sides of the body may provide a key to open our understanding of the psychological and physiological mechanisms of the two major modes of consciousness.
>
> The cerebral cortex of the brain is divided into two hemispheres, joined by a large bundle of interconnecting fibers called the "corpus callosum." The left side of the body is mainly controlled by the right side of the cortex, and the right side of the body by the left side of the cortex. When we speak of left in ordinary speech, we are referring to the side of the body, and to the right hemisphere of the brain.
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> Both the structure and the function of these two "half-brains" in some part underlie the two modes of consciousness which simultaneously coexist within each one of us. Although each hemisphere shares the potential for many functions, and both sides participate in most activities, in the normal person the two hemispheres tend to specialize. The left hemisphere (connected to the right side of the body) is predominantly involved with analytic, logical thinking, especially in verbal and mathematical functions. Its mode of operation is primarily linear. This hemisphere seems to process information sequentially. This mode of operation of necessity must underlie logical thought, since logic depends on sequence and order. Language and mathematics, both left-hemisphere activities, also depend predominantly on linear time.
>
> If the left hemisphere is specialized for analysis, the right hemisphere (again, remember, connected to the left side of the body) seems specialized for holistic mentation. Its language ability is quite limited. This hemisphere is primarily responsible for our orientation is space, artistic endeavor, crafts, body image, recognition of faces. It processes information

The need to develop these abilities explains the absence of photographs in legal casebooks and may also explain some of the resistance to clinical legal education. Television, on the other hand, provides one possible explanation for Dean Walter Probert's statement that "something about these times makes legalistic conditioning more difficult in law schools."[111]

V. Conclusion

Television is new and law is old. But it is a serious mistake to think of law as an ancient phenomenon that exists now as it has always existed. Law has ancient roots, but much of its contemporary form and values would be unrecognizable and unintelligible to persons who lived two or three thousand years ago. Most of the processes and values of law have changed as new societies and cultures have evolved.

The model of law which has prevailed in the West for the last few centuries—the liberal ideal of a system of abstract rules—is under great stress. It is expected to perform many functions, but its inherent power is not nearly as great as the public believes. Contrary to its portrayal on television, law is not all-powerful. Unlike the stone edifices which have been built to house its institutions, law is quite fragile. When it works, it is often only because it has been barely powerful enough to achieve its purpose. Evidence of its frequent failure and weakness—from criminal violence to continuing racial and sex discrimination—is provided daily. Given these conditions, it is vitally important to understand the influence of any new, important cultural development. I have suggested several points of contact between law and the new communications media which are such a development and which have, until now, been ignored. I hope that the framework presented here will lead to further studies of this subject and will expand the way in which the relationship between law and communications is perceived.

The theme running through this article has been that as new forms of communication develop, the model of law which prevails in a society

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more diffusely than does the left hemisphere, and its responsibilities demand a ready integration of many inputs at once. If the left hemisphere can be termed predominantly analytic and sequential in its operation, then the right hemisphere is more holistic and relational, and more simultaneous in its mode of operation.

Id. at 51-3.

111. W. PROBERT, LAW, LANGUAGE AND COMMUNICATION 18 (1972).

will change. The process of law probably began when the primary group lost control, a period which coincides with the introduction of writing. As psychologist Julian Jaynes has noted, "by 2100 B.C. in Ur, the judgments of the gods through their stewards began to be recorded. This is the beginning of the idea of law."[112] Liberal legal ideas became prominent and believable with the invention and spread of printing, even though law often worked in ways opposite to these ideals. The paradigm of law which now exists is not an endpoint but rather a stage in the continuing evolution of forms of social control and dispute resolution. The new media are one of the forces which must be considered in any discussion of the future of law. The thesis of this article is that in various ways, the message of the new media is anti-law. This may be one reason why "the law is becoming more fragmented, more subjective, geared more to expediency and less to morality; concerned more with immediate consequences and less with consistency or continuity."[113] Yet, the effect of the new media is not necessarily authoritarian. It is just as possible that the new institutions which develop to resolve conflict will be more egalitarian, more participatory and, in the end,, more just.

It should also be emphasized that the new media will not make printing or books disappear. The new ways of communicating will not cause the printed word to be obsolete, just as the invention of printing did not make writing disappear and the development of writing did not stop people from speaking to each other. The creation of new media for communicating will, however, affect the frequency with which printing is used. Some information which is now communicated through print will be transmitted much more quickly through different media in the future. It is impossible to predict what the nature or the mix of media will be, but it will inevitably be quite different from what it is now. We may, as a result, be "working our way, painfully, through a development of some new workable image for lego-political processes, where law-as-rules will appear just a little silly."[114]

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112. J. JAYNES, THE ORIGINS OF CONSCIOUSNESS IN THE BREAKDOWN OF THE BICAMERAL MIND 198 (1976).

113. H. BERMAN, *supra* note 79 at 39.

114. W. PROBERT, LAW, LANGUAGE AND COMMUNICATION 58 (1972).