TECHNOLOGICAL ADVANCES IN BANKING: A MOVE TO A GLOBAL ECONOMY

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I. INTRODUCTION

Technology permeates every aspect of our society. From medicine to data processing and the banking industry, technology, while arguably an advancement, has the potential of breeding unexpected consequences. Technology has permeated the banking industry as well. The once conservative, old-fashioned industry has grown to accept technological advances and adapt to the advances in technology, primarily in response to consumer demand.[1] International banking has grown proportionally to business demand.[2]

The technological advances are not limited within the United States' borders. Many nations have surpassed the United States in their

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1. FLOYD E. EGNER, III, THE ELECTRONIC FUTURE OF BANKING 18 (1991).

2. SEUNG H. KIM & STEPHEN W. MILLER, COMPETITIVE STRUCTURE OF THE INTERNATIONAL BANKING INDUSTRY 15 (1983).

acceptance of the technological advances in banking. These advances and the possibilities they allow erase international borders and start the process toward a global economy. The United States' legal community has attempted to keep up with technological advances in banking; however, the advances continue to surpass the legislature. The international legal community must also strive to keep in step with each industry's advancement in order to protect the entire public.

Major advancements in banking include the advent of on-line or PC banking. PC banking is a method by which consumers can bank, as they would normally do in person at a brick and mortar bank.[3] Concurrent with the major banking advancements are others like on-line credit, electronic checks, electronic cash, smart cards, and digicash.[4] All of these advances allow for the quick transfer of funds internationally as well as the use of funds internationally. It seems logical that with the recent technological advances one in the United States can transfer funds to another in Jamaica with the click of a button.

All of the advancements to the banking industry correspond with the information superhighway. According to technocratic proponents, the information superhighway provides the availability of legions of information at the touch of a button. With the superhighway one can shop, bank, study, play, and work at home. Computer hardware and software companies, obvious proponents of the superhighway, are already providing electronic banking which includes *inter alia* check cashing and deposits, debit cards,[5] via virtual branches,[6] and payment systems.[7] Additionally, these computer companies offer electronic cash, e.g., smart cards and

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3. *See generally* Kelly M. Miley, *Electronic Banking: Developments in Banking Law*, 15 ANN. REV. BANKING L. 2 (1996); Vanessa O'Connell, *PC Banking Puts Accounts at Your Fingertips*, WALL ST. J., Oct. 25, 1995, at C1; Karen Epper, *Bank of America Strives to Stay Lean in Electronic Banking*, AM. BANKR., Oct. 27, 1995, at 13; Timothy L. O'Brien, *On-line Banking Has Bankers Fretting PCs May Replace Branches*, WALL ST. J., Oct. 25, 1995, at A1.

4. On-line shoppers may make purchases on the Internet by using their credit cards. The electronic check system, promulgated by the Financial Services Technology Consortium [hereinafter FSTC], allows Internet payments in a manner like the paper checkbook. *See* Penny Lunt, *Payments on the 'Net. How Many? How Safe?*, A.B.A. BANKING J., (Nov. 1995) *available in* LEXIS, Banking Library, ABABJ File. Electronic cash includes the smart card and digicash. Miley, *supra* note 3, at 14-15. Physically, the smart card looks like a credit card. The difference is that the smart card has a memory chip with a monetary value assigned to it. Miley, *supra* note 3, at 14-15. The smart card is analogous to a ATM debit card. *Id.* at 14. Digicash is relatively new to the electronic cash scene and is also referred to as e-cash. *Id.* at 14-15. Users of digicash access an on-line account equipped with a password and authorizes the *Ecash Mint* to transfer their money. *Id.* at 15-16. Digicash is analogous to e-mail.

5. Miley, *supra* note 3, at 10, 12-13.

6. *Id.* at 5.

7. Lunt, *supra* note 4.

digicash.[8] These companies see the endless possibilities electronic banking can provide, but even more importantly, computer companies see the monetary potential access can afford.[9] Accordingly, hardware and software companies market the information highway to prospective customers using attractive education and income specific metaphorical language to entice subscribers.[10] We can see, through the allegorical language used to describe the superhighway, specifically electronic, on-line, or PC banking,[11] that proponents seek to attract specific groups; thus, excluding access to some. This concept begs the question of whether the technological developments are for public consumption and advancement or for private gain.

This note seeks to determine the assets along with the liabilities of the superhighway through the electronic banking scheme and the implications on international law. While access to electronic banking may be the new trend, there are aspects for consideration. Part two seeks to analyze access to the superhighway, specifically as it relates to electronic banking, the technological advances in banking, and some of the legal issues these advances raise. Part three seeks to analyze and apply these issues using the laws promulgated domestically and internationally. Part four seeks to discuss some groups of people within the legal community as it relates to technological advances in banking, both domestically and internationally. Part five seeks to discuss some of the liabilities of electronic banking, both domestically and internationally. Finally, part six seeks to determine whether access to electronic banking via the superhighway, while presumably the wave of the future, will be the wave for all.

II. ELECTRONIC BANKING AND TECHNOLOGY

Banks have become part of the superhighway via electronic banking. As the name suggests electronic banking combines concepts of electronics and banking to provide such services as automated data processing,[12] electronic funds transfer,[13] and on-line services like electronic

8. Miley, *supra* note 3, at 14-16.

9. *See generally* O'Connell, *supra* note 3.

10. *Id.*; Epper, *supra* note 3; O'Brien, *supra* note 3.

11. For example, authors discussing the technological advancements of the banking industry use phrases such as *fast* and *flexible* and promises such as *complete autonomy* in the use of PC banking. *See generally* Catherine M. Downey, *The High Price of a Cashless Society: Exchanging Privacy Rights for Digital Cash?* 14 J. MARSHALL J. COMPUTER & INFO. L. 303 (1996).

12. Mark Budnitz, *The Finicky Computer, the Paperless Telex and the Fallible Swiss: Bank Technology and the Law*, 25 B.C. L. REV. 259 (1984).

payment systems, electronic credit cards, electronic checks, and electronic cash.[14] The harbinger to electronic banking was the automated teller machine (ATM). The ATM was first introduced as a means to decrease the workload of tellers; however, such decrease has evolved into an elimination of the teller.[15]

The ATM evolved into mini branches that are open twenty-four hours a day.[16] The banking customer can withdraw or deposit funds at any hour of the day and at virtually any ATM location.[17] At its inception, the ATM was a marketing scheme for banks providing them with a competitive edge.[18] Recently however, the ATM for the banking industry, is more than just a marketing scheme, but a requirement to effectively compete in the industry.[19] For the average banking consumer, the ATM was merely the technological start of advancements to come.

A. The Smart Card

The smart card takes the form of an ATM card, but with very different features. The smart card looks like a credit card but has stored value.[20] Smart cards are sometimes referred to as PCMCIA cards because they are accessible to computers and fit into the PCMCIA slots in portable computers.[21]

There are four basic types of smart cards:

1) money cards, are most analogous to an ATM card, having data storage space and are accessible via a personal identification number (PIN). In France, these memory cards are used to access telephones;[22]

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13. *Id.*

14. *Id.*; Miley, *supra* note 3; Downey, *supra* note 11.

15. EGNER, *supra* note 1, at 99.

16. The ATM, as the name states, is the electronic version of a bank without the human interaction. *Id.* One gains access to the ATM via an ATM card and a personal identification number (PIN). DANIEL C. LYNCH & LESLIE LUNDQUIST, DIGITAL MONEY: THE NEW ERA OF INTERNET COMMERCE 19-20 (1996) [hereinafter DIGITAL MONEY]. The ATM card looks like a credit card; however it does not provide the customer with credit. Rather, the ATM card provides the customer with access to his/her bank account and the funds therein. *Id.*; *see also* EGNER, *supra* note 1.

17. EGNER, *supra* note 1, at 109.

18. *Id.* at 99.

19. *Id.* at 100-01. There has been a marked increase in the use of the ATM machine from its inception. Such increase is primarily due to consumer comfortability. *Id.* at 100-01.

20. DIGITAL MONEY, *supra* note 16, at 116.

21. *Id.*

22. *Id.*

2) shared key cards are a network of smart cards that can communicate with each other;

3) signature-transporting cards are analogous to check books with pre-printed check numbers;[23] and

4) signature creating cards are similar to signature transporting cards with one main difference the user generates the blank check numbers.[24] Signature creating cards are expensive to produce.[25]

Rather than merely providing the customer with access to a bank account, the smart card has stored value. The smart card is used internationally, and most notably in Europe and Asia.[26] Other nations have announced the implementation of smart card systems.[27] The Conditional Access for Europe (CAFE) is developing a smart card for payment throughout Europe.[28] With the CAFE smart card, one will be able to travel throughout Europe with one universal card, allowing the ease of paying in cash without foreign exchange.[29] Functionally, the smart card is a pre-paid debit without the access to an account in that once the stored value is exhausted, the consumer must either purchase a new card or add value to the existing one.[30]

B. Digital Money (DigiCash)

Digicash is independent of the smart card.[31] It allows the user to conduct business via the internet.[32] In order to use digicash the user must have a computer and the digicash software.[33] Armed with a computer, the user accesses a previously assigned account by using her previously issued

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23. With the signature-transporting cards, the user assigns a dollar amount to each numbered check.

24. *Id.*

25. *Id.*

26. DIGITAL MONEY, *supra* note 16, at 116; EGNER, *supra* note 1, at 28. In France, smart cards are used for telephone access and can be purchased at newspaper stands. DIGITAL MONEY, *supra* note 16, at 116. In Japan, researchers are developing the smart coin. EGNER, *supra* note 1, at 28.

27. DIGITAL MONEY, *supra* note 16, at 117.

28. *Id.*

29. *Id.*

30. *Id.* at 115.

31. Miley, *supra* note 3.

32. DIGITAL MONEY, *supra* note 16, at 109-12.

33. *Id.*

account number and password, and requests funds be transferred.[34] The user's request for a transfer must be authenticated via the *Ecash Mint*.[35] The Mint is essentially a computer server.[36]

Electronic money has the potential to bypass international borders and bypass the cost of foreign exchange.[37] So long as digital money is accepted as legal tender[38] by a government, most other nations will accept the same in their economy.[39] Proponents of electronic money predict its societal acceptance and moreover, they predict that one day digital money will be indistinguishable from more traditional forms of money.[40]

The potentially indistinguishable character of digital money from traditional money prompted a concern for its regulation.[41] In paper form all of these electronic services are regulated pursuant to a state and/or federal statute.[42] However, via the Internet, regulation is virtually non-existent. In fact, once the consumer transfers money via a digicash transfer, the Federal Deposit Insurance Company's (FDIC) protection is no longer available.[43] Proponents of digicash and other technological advances state that the consumer's privacy is protected.[44] However, others do not reach the same conclusion.[45] While privacy laws are designed to protect the digicash user/consumer, one's privacy is easily violated by the simple tracking of account numbers and account holders to the purchases made.[46]

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34. *Id.*; Miley, *supra* note 3, at 15.

35. *Id.* at 15.

36. *Id.*

37. DIGITAL MONEY, *supra* note 16, at 121.

38. Legal tender is defined in § 1-201(24) of the Uniform Commercial Code. U.C.C. § 1-201(24).

39. Sarah J. Hughes, *A Call for International Legal Standards for Emerging Retail Electronic Payment Systems*, 15 ANN. REV. BANKING L. 197, 208 (1996) (*citing Electronic Money; So Much for the Cashless Society*, ECONOMIST., Nov. 26, 1996, at 21). However, the issue of the foreign exchanges may still need to be addressed.

40. *Id.*

41. The electronic banking community is attempting self-regulation by using encryption. Encryption, an electronic security method, enables the electronic banking user to have an identifiable mark, or signature which purportedly deters fraud and forgery.

42. For example, a customer's right to stop payment of checks is regulated under the Uniform Commercial Code. *See* Budnitz, *supra* note 12, at 268. ATM machines, which are essentially computer bank branches, are regulated pursuant to 12 U.S.C. § 36(f) (1997). *See also* Plant City v. Dickinson, 396 U.S. 122 (1969); Indep. Bankers Ass'n. v. Marine Midland Bank, 757 F.2d 453 (2d Cir. 1985).

43. Miley, *supra* note 3, at 16.

44. *Id.*

45. DIGITAL MONEY, *supra* note 16, at 112.

46. *Id.*; *see also* Joshua Quittner, *Who's Out There Watching You?*, TIME, Aug. 25, 1997, at 28-32.

III. ELECTRONIC BANKING AND THE LAW

A. Domestic Law

At this time, the United States has a few statutes that may be considered electronic banking regulation. Some of these laws include the Electronic Funds Transfer Act (EFTA),[47] the Uniform Commercial Code Article 4A,[48] the Consumer Credit Protection Act,[49] the Right to Financial Privacy,[50] and the Electronic Communications Privacy Act.[51] Presently, the standard for legal tender is defined by the Uniform Commercial Code.[52] It follows that if a country accepts a particular form of tender as legal tender it is legal tender in that country. So if the United States and Europe decided to accept a particular form of digicash as legal tender in either country, the use of digicash would be facilitated. Because of this possibility, there must be laws in place to protect users of electronic money.

In order for the present laws to be applicable to the use of electronic money, one must first survive the issue of whether such money is legal tender, as defined in the UCC. The next issue involves whether the electronic banking institution, i.e. the issuer of the electronic funds, whether it be digicash or smart cards, is a banking institution as defined by the federal statutes.[53] After determining whether such institution is a banking institution, the next issue is the proper venue for bringing suits. Presently, the federal banking venue statutes provide that any action against any banking association may be had in any district or territorial

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47. The EFTA applies to any transfer of funds other than transfers originated by the traditional check, i.e., transfers via any electronic media. *See* 15 U.S.C. § 1693(a)(6) (1997). The EFTA applies to the use of the ATM. *See* 15 U.S.C. § 1693(g) (1997).

48. Article 4A applies to some concepts of electronic banking, specifically the use of payment orders, which combined the traditional concept of the check to electronic users.

49. 15 U.S.C. § 41 (1997). Said chapter implements regulations protecting the consumer against credit card fraud.

50. 12 U.S.C. § 3404 (1994).

51. *See generally* 18 U.S.C. §§ 2510-2518 (1994).

52. *See* U.C.C. § 1-201(24). Specifically, that section defines legal tender or money as a medium of exchange authorized or adopted by a domestic or foreign government and includes a monetary unit of account established by an intergovernmental organization or by agreement between two or more nations. *Id.*

53. The United States Code defines a banking institution, i.e. a financial institution, as any business which engages in any activity which is deemed to be an activity similar to, related to, or a substitute for any banking activity. 31 U.S.C. § 5312(a)(2) (1995). If an institution falls within such category the Secretary of the Treasury may require such institutions to keep records. Moreover, such banking institutions must comply with federal privacy laws. *See* 12 U.S.C. §§ 3401, 3402, 3403 (1997).

court in the United States where such banking institution is located.[54] When a banking institution is on the Internet the question arises as to where the institution is located.[55]

For the consumer, other issues involve his or her right to privacy.[56] Most specific to electronic banking is the Right to Financial Privacy Act of 1982.[57] This act precludes government access to or release of consumer's financial records without the government's written certification of the government's investigation to the financial institution and compliance with statutory requirements.[58] Another such federal regulation is the Electronic Communications Privacy Act of 1986.[59] Said regulation protects the consumer from unauthorized interception of electronic communication. The two acts seemingly intertwine in electronic banking to protect the banking consumer from unauthorized interception of financial records over the Internet. However, its impact in international electronic banking has not yet been determined.

Internationally, there has been a call among commentators for international laws and standards. With or without adequate regulation, the concept of electronic banking has various benefits.

B. International Law

On an international scale, electronic money has been widely discussed but minimally regulated. Researchers of global electronic money have stated, "the electronic networks and computers which are the infrastructure for the current global financial community have been instrumental in the decline of national control of money."[60] According to these scholars, the use of the smart cards and digicash are consistent with the tradition of substituting legal tender for an obligation to pay;[61] hence, the label electronic cash is erroneous and should be replaced with electronic credit. The American Bar Association Section of Business Law

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54. 12 U.S.C. § 94 (1997).

55. Similar issues have been discussed in the federal courts with pornography on the Internet.

56. *See* Downey, *supra* note 11, at 309.

57. 12 U.S.C. § 3404 (1997).

58. *See* 12 U.S.C. § 3403(b) (1997); *see generally* Downey, *supra* note 11, at 311.

59. 18 U.S.C. §§ 2510-2518 (1997); *see generally* Downey, *supra* note 11, at 312.

60. Jeffery B. Ritter, *US HR Subcommittee on Monetary Policy*, Aug. 10, 1996, *available in* LEXIS, Banking Law Library, Banking Law File (citing KURTZMAN, THE DEATH OF MONEY: HOW ELECTRONIC ECONOMY HAS DESTABILIZED THE WORLD MARKET AND CREATED FINANCIAL CHAOS (1993) and Kazuaki Sono, *Electronic Funds Transfer Blurs the Meaning of Money*, 2 THE DATA L. REP. 1 (May 1995)).

61. Ritter, *supra* note 60.

Task Force on Stored Value Cards conducted research on same and concurred.[62] While critical of the concept of electronic cash as money, these scholars understand that the development is critical in establishing the global market.[63] Until the legislature develops laws regulating electronic money, scholars will call for self-regulation and the development of legal norms to establish the consumer confidence that has already been established with the ATM.[64]

In 1986, the United Nations Economic Commission for Europe Working Party on Facilitation of International Trade Procedures developed a tool to assist in the electronic transfer of cash globally, the Electronic Data Interchange for Administration, Commerce, and Transport (EDIFACT). The EDIFACT has been endorsed in the United States and has been accepted for integration in the European Union.

The EDIFACT attempts to facilitate international trade by permitting users with a standard of trade. According to proponents, EDIFACT provides certainty, which establishes confidence in the electronic commerce.

Others concerned with the development of electronic money and its transfer on the net have organized a venue for discussion and development of standards.[65] Known as the Internet Law and Policy Forum, the forum seeks to provide an arena for businesses and legislators in establishing a model for lawmaking in the future. Specifically, the forum seeks to develop: 1) uniform definitions of terms for commercial transactions, 2) model agreements, codes of conduct, or other terms reflecting global industry standards, and 3) model national laws and eventually treaties or conventions.[66]

Proponents of the international regulation of electronic banking are but one faction within the legal community considering the effects of technological advances in electronic banking. Other factions within the community have alternative views.

IV. FACTIONS IN THE LEGAL COMMUNITY

One's view of electronic banking as an asset or liability depends on that person's view of technology. The legal community, as part of the

62. *Id.*

63. *Id.*

64. *Id.*

65. *See also Internet Law and Policy Forum* (visited Mar. 24, 1998) <http://www.ilpf.org/>.

66. *Id.*

general population, also has differing views of technology and its commensurate advances.

According to researchers, technology and the law may be viewed differently. One way of viewing technology, called *technological messianism*,[67] embraces technology as a blessing.[68] Those who adhere to technological messianism may also be referred to as technocrats.[69] Conversely, there are others who believe that technological advances are an *unmitigated curse*.[70] These extremists, referred to as technological determinists, believe that technology robs people of jobs, privacy, overall dignity, and inevitably controls society.[71] In the middle, are those who seem to take the realist approach, and believe that technology has the potential for good but must be controlled.[72] These people are referred to as humanizers.[73] Humanizers recognize the determinists and the messianists positions. However, humanizers believe that technology can be beneficial to society if properly controlled.[74]

Humanizers believe that technology is a product of *innumerable individual decisions*.[75] At the time, these decisions seem reasonable individually, but in the end, the amalgamation of those decisions may not be what was originally desired.[76] The humanizer rejects the idea that any one group should control the manner in which technology is deployed. Instead, they believe that technological advances should be used as an instrument of society.[77] The humanizers have the most logical view of technology because they understand it is unwise to defer to a particular group's desire, especially when each grant of a group's desire may have an unexpected impact on other groups and eventually, society as a whole.[78]

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67. Budnitz, *supra* note 12, at 261.

68. *Id.*

69. Other commentators would also call the technocrat a gadgeteer. *See also* EGNER, *supra* note 1, at 48-49.

70. *Id.*

71. *Id.* Other commentators would call the determinist a procrastinator. Compellingly the procrastinators are those who are older and also in the lower socio-economic sector. EGNER, *supra* note 1, at 51.

72. Budnitz, *supra* note 12, at 262.

73. *Id.*

74. *Id.*

75. Budnitz, *supra* note 12, at 264.

76. *Id.*

77. *Id.*

78. *Id.*

In the banking industry, the humanizers must be the legal community. Presently, the need for a humanistic approach to banking is of vital importance because of virtual banks',[79] like Security First Network Bank, desire to become full-service banks. For now, the Office of Thrift Supervision (OTS) has only approved these banks to accept deposits.[80] Recently, banks have been promoting PC banking to desiring customers.[81] PC banking is quickly permeating many major banks. For some it is not only the wave of the future but an integral part of the present.[82]

Because virtual banks may become the wave of the future, the legislature should analyze the benefits and liabilities of each advancement to assure that this amalgamation of virtual banks does not become a detriment to society. Analysis of the benefits and liabilities of such advances may protect the consumer from feeling as though *Big Brother*[83] is always watching and is omniscient, omnipotent, with the specific power of controlling our very existence.[84]

While technological advances abound and individually, each advance is for the benefit of society, the legal community must strive to keep up and protect the community from the amalgamation of each advance becoming *Big Brother*. Forms of *Big Brother* have seemingly crept its head in other industries.[85] Because the Internet has the potential to invade all aspects of our society,[86] the legal community must not be enticed by the promotions of technological messianists, but be ever mindful of the determinists' position of doom and view of the liabilities of these advances.

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79. A virtual bank, also known as an Internet bank, allows consumers to access their accounts, pay bills, and essentially function as a *regular* bank. *See* Miley, *supra* note 3; O'Connell, *supra* note 3; O'Brien, *supra* note 3.

80. Miley, *supra* note 3, at 9-10.

81. O'Connell, *supra* note 3.

82. *Id.*

83. *See generally* GEORGE ORWELL 1984 (New America Library 1961).

84. Fictionally, we have seen the potential technology has in movies similar to the recently released movie, THE NET (1995), depicting a woman's quest to reinstate her existence deleted by a computer.

85. For example, in the credit card industry, companies can buy the customer database of another company to solicit customers fitting a certain profile. In the end, the consumer, who may have believed their transactions were private, is solicited from an unknown and possibly unwelcome solicitor who wants to give the consumer the deal of a lifetime. *See* Tim Huber, *The Check Card is in the Mail Like it or Not*, 14 MINNEAPOLIS/ST. PAUL CITY BUS. 33, Jan. 18, 1997, at 4.

86. The Internet and its components offer services like on-line periodical subscriptions, on-line shopping malls, on-line communication, in addition to on-line banking.

V. LIABILITIES OF BANKING TECHNOLOGY: DETERMINISTS V. MESSIANISTS

Technological determinists have a valid point concerning advancements in banking. Recently, there have been reports of security breaches on the Internet.[87] Further, despite the security breaches there is the concern that consumer data information will invade consumers' privacy interests.[88] Consumers' privacy interests are daily being compromised in the data bank sales market. According to some researchers, current legislation does not adequately address privacy concerns raised by consumer banking use on the Internet.[89] Relatively recent legislation like the Privacy Act of 1974, the Right to Financial Privacy Act of 1982, and the Electronic Communications Privacy Act of 1986, attempts to examine and protect consumer privacy. Internationally, there is no corresponding legislation.[90] However, each act of legislation does not properly protect on-line banking consumers from *Big Brother*;[91] nor does this legislation address the following issues of legal tender, whether the electronic banking institution is an institution, or the location of the institution. Additionally, the legislatures do not address the issue of security within the industry. Researchers conclude that the move to a cashless society stretches the parameters of current legislation.[92] Specifically, researchers implore the legislature to enact statutes that directly address the use of digital cash.[93]

While the use of electronic banking may not ultimately be our doom, as the determinists predict, clearly adequate legislation is critical to protect legitimate on-line users from *Big Brother*, whether he is the government or the business community. The liabilities of electronic banking must be addressed as soon as possible to ward off the determinists' expectation of doom for all users of electronic banking.

Messianists predict electronic banking as the wave of the future, but will it be the wave for all? While costs of computers have decreased tremendously, such decline has not afforded use for all those who desire to

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87. *See generally* Miley, *supra* note 3, at 8; Epper, *supra* note 3; Lunt, *supra* note 4; Jonathan Gaw & Ulysses Torassa, *Security Bugs On-Line Banking*, PLAIN DEALER, Oct. 12, 1995, at 1C.

88. Downey, *supra* note 11, at 305.

89. *Id.* at 308-09.

90. *See* Ritter, *supra* note 60; Hughes, *supra* note 39.

91. *See generally* Downey, *supra* note 11, at 313-14; Cal. Bankers Ass'n v. Schultz, 416 U.S. 21 (1974) (concluding that the Bank Secrecy Act does not preclude the government from collecting banking information of criminal suspects); United States v. Miller, 425 U.S. 435 (1976) (generally defining the zone of privacy and restricting an individual's right to financial privacy).

92. Downey, *supra* note 11, at 315, 318.

93. *Id.* at 321.

go on-line. To purchase a computer along with all the requisite attachments, a consumer needs at least three thousand dollars ($3,000.00).[94] Such costs will preclude a low or moderate income family from purchasing a computer, which ultimately forecloses that family from going on-line.

Economists predict that on-line banking will, ultimately, cause a significant cost differential between computer and *regular* banking.[95] Such cost differentials may make the poor poorer and the rich richer because the poor will be required to pay more than the more affluent in banking transactional costs, while the more affluent who own computers will be able to reduce their transactional costs. The poor bank customers will thus be foreclosed from purchasing a computer because of their inability to save because they must pay more in banking transactional costs.

VI. CONCLUSION

If electronic banking via the information superhighway is the wave of the future, one must consider both the benefits and the liabilities. One of the reasons for the maintenance of traditional banks was to allow the working citizens access to the industry and provide stability for both the banking consumers and the government as a whole. On the international scale, smaller, lesser developed countries may have difficulty getting access to on-line banking. Moreover, international laws seem ill-equipped to control the legal implications that such banking incurs. Hence, there has been a unanimous call among legal scholars for implementation of international laws as it relates to electronic banking.[96] While there are obvious benefits to on-line banking, there are some liabilities that must be addressed. It may be unreasonable for one to think that on-line banking will be available to all, as is access to brick and mortar banks, but one must consider all the potential factors, including all the legal implications and corresponding issues when considering the next technological advancement.

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94. For computer prices see Steve Alexander, *The Do-All Chip, Intel Corporations New MMX Technology is Generating PC Sales for Retailers Such as Best Buy and Later This Year More Software Will Take Advantage of the Improved Multimedia Processing*, STAR TRIBUNE, Apr. 27, 1997, at 1D; for printer prices see James Kim, *Printer Companies Vie for Shrinking Share*, USA TODAY, June 5, 1997, at 6B.

95. *See generally* Miley, *supra* note 3; Peter Sinton, *Banking's Brave New World*, S.F. CHRON., Oct. 9, 1995, at B1.

96. *See* Miley, *supra* note 3; Hughes, *supra* note 39; Ritter, *supra* note 60.