

# NORM ORIGIN AND DEVELOPMENT IN CYBERSPACE: MODELS OF *CYBERNORM* EVOLUTION

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## I. INTRODUCTION

In the absence of legal rules or physical force, what causes someone to behave in a manner contrary to one's private desires? Why, for instance, does one tip a bellhop for carrying luggage to a hotel room? Legal rules do not mandate the tipping of bellhops, and bellhops typically do not threaten physical force. So why does one feel obligated to tip the bellhop and embarrassed when one does not? Tipping the bellhop is a social norm.

Social norm theory seeks to explain such informal constraints on human behavior. While numerous areas of academia employ social norm theory, scholars have yet to apply it directly to the study of the Internet.<sup>1</sup> This Article traces norm origin and development in cyberspace and presents a

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1. Theories of social norms have been applied to a wide range of disciplines such as economics, sociology, philosophy, international, ethics, and criminology. See generally Harold L. Cole et al., *Social Norms, Savings Behavior, and Growth*, 100 J. POL. ECON. 1092 (1992) (introducing the concepts of status and social norms into economic models); Kevin Hartigan, *Matching Humanitarian Norms with Cold, Hard Interests: The Making of Refugee Policies in Mexico and Honduras, 1980-89* 46 INT'L ORG. 709 (1992) (discussing how an international institution's humanitarian norms interact with the policy interests of policymakers in Mexico and Honduras to produce refugee policy decisions); Douglas D. Heckathorn, *Collective Action and Group Heterogeneity: Voluntary Provision Versus Selective Incentives*, 58 AM. SOC. REV. 329 (1993) (explaining that whether heterogeneity facilitates collective action towards public good depends on the manner in which norms are enforced within a group); Joseph E. Jacoby & Francis T. Cullen, *The Structure of Punishment Norms: Applying the Rossi-Berk Model*, 89 J. CRIM. L. & CRIMINOLOGY 245 (1998); Michihiro Kandori, *Social Norms and Community Enforcement*, 59 REV. ECON. STUD. 63 (1992) (analyzing the role of social norms in supporting efficient outcomes when partners and agents transact business infrequently); Richard W. Miller, *The Norms of Reason*, 104 PHIL. REV. 205 (1995) (proposing that rational belief must be based on striving to conform to the norms that properly regulate the practice of inquiry as to truth); Henry S. Richardson, *Specifying Norms as a Way to Resolve Concrete Ethical Problems* 19 PHIL. & PUB. AFF. 279 (1990) (explaining how norms can be used to resolve concrete ethical problems).

corresponding theory of “*cybernorms*”; a theory which explains informal constraints on human behavior in cyberspace.<sup>2</sup>

The study of cybernorms is particularly salient because the Internet is as much a social phenomenon as it is a technical phenomenon. The social sphere of cyberspace has developed at an exponential rate, particularly over the past decade, and consequently, has brought the issue of Internet governance to the forefront. As tension mounts, domestically and abroad, between lawmakers, who zealously support new Internet legislation, and the private sector, which promotes a self-regulatory scheme, the study of cybernorms becomes increasingly important. Regardless of the method of governance, the consideration of cybernorms is critical when imposing formal constraints, such as laws, regulatory policies, and precedent, and equally important when endorsing informal constraints inherent to a self-regulatory scheme.

This Article consists of three complementary theories of cybernorm evolution and origin that together provide an appreciation and understanding of cybernorms, important to the proper imposition of formal and informal constraints. First, this Article recognizes that cyberspace is truly a community, consisting of many individual users and groups of users holding beliefs as divergent as society itself. Yet, the Internet was not always this way; instead, its roots are found in a somewhat offbeat, yet homogeneous, culture of scientists and academics. This transition from a homogeneous subset of society to a relatively independent and heterogeneous society of its own forms the first of three central premises of this Article. In order to illustrate this noteworthy transition, I present a model that depicts five stages of cybernorm evolution with respect to a system of social norms.

One must also consider the relationship between cybernorms and traditional social norms because significant, varying interdependencies evolve over time between these two systems. Accordingly, as the second major theory of this Article, I present a model of cybernorm evolution that considers the dependency of cybernorms on traditional social norms and correspondingly, a second model that depicts the dependency of social norms on cybernorms. Considering both models simultaneously leads to a prediction of cybernorms’ ultimate fusion into non-digital society, a

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2. The reader should note that throughout the Article, I use the terms “social norms” or simply “norms” not only in the traditional sense, but also to definitively indicate reference to norms *outside* the realm of cyberspace. Social norms *within* cyberspace are, in all instances, termed “cybernorms,” or “social cybernorms.” If the prefix “cyber” is not present, I am addressing traditional social norms that occur in non-digital society. It is critical to understand the terminology to read this Article properly because I make comparisons and distinctions throughout.

phenomenon that I term the *convergence effect*.

As the third central premise of this article, I investigate the qualities of the Internet that distinguish cybernorm origin from social norm origin and thus support the need for novel theories explaining cybernorms. While social norm theory serves as a necessary foundation for understanding cybernorm theory, the need for further study into cybernorms becomes particularly evident when one considers two characteristics underlying the distinct social system of the Internet: anonymity and pervasive information flow.

Part II of this Article establishes the building blocks for the sections that follow by offering a general overview of norm theory. I introduce terms of conventional norm theory that are of particular import to this Article and provide a full definition of cybernorms. In Part III, I present the two models of cybernorm evolution described above. The first model illustrates five stages of cybernorm development in relation to social norms, and the second model builds upon the first and studies more specifically the dependency of social norms and cybernorms upon each other. Part IV applies established norm origin theory to cyberspace and addresses the need for independent consideration of cybernorms. Part IV further focuses on the two most influential and distinguishing characteristics of the Internet, pervasive information flow and anonymity. Finally, Part V discusses why a thorough understanding of cybernorms is crucial when determining how to regulate cyberspace.

## II. A FRAMEWORK FOR UNDERSTANDING SOCIAL NORMS AND CYBERNORMS

A theory of cybernorms necessarily develops from an understanding of traditional social norm theory. The ensuing discussion introduces the fundamentals of traditional social norm theory and outlines facets relevant to a discussion of cybernorms. The following section then defines cybernorms and offers illustrations of expected user behavior indicative of cybernorms.

### A. *What are Social Norms?*

Norms are social regularities that impose informal standards and constraints on human behavior in deference to the preferences of others.<sup>3</sup>

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3. See William K. Jones, *A Theory of Social Norms*, 1994 U. ILL. L. REV. 545, 546 (1994) (explaining social norms as those rules and standards that define the limits of acceptable behavior). See also Robert Axelrod, *An Evolutionary Approach to Norms*, 80 AM. POL. SCI. REV. 1095, 1097 (1986) (“A norm exists in a given social setting to the extent that individuals usually act in a certain way and are often punished when seen not to be acting in this way.”); Richard H. McAdams, *The Origin*,

Thus, social norms generate expectations.<sup>4</sup> They are commonly an outgrowth of custom, convention, adherence to organizational structures, and a general sense of right and wrong.<sup>5</sup> For example, tipping in a restaurant after one finishes a good meal is a social norm.<sup>6</sup> Recycling white office paper, saying “excuse me” when accidentally bumping into someone, wearing a ring to signify marriage, waiting in line in the United States and queuing in Great Britain (but not China), and mowing your lawn in a timely manner are further examples of social norms. These illustrations all are informal constraints on human behavior, imposed by society, which compel us to act accordingly.

Noncompliance with social norms will typically invoke penalties or sanctions.<sup>7</sup> For instance, co-workers may think less of a colleague who chooses not to recycle white office paper; the person who did not say “excuse me” when bumping into another may receive a dirty look; the lack of a ring may engender negative assumptions; nasty comments may deluge the person who rudely cuts in the front of the line; and neighbors may gossip about the lackadaisical neighbor who has not mowed his lawn for three weeks.

A social norm can, however, become so embedded in one’s conscience that one does not need external incentives to compel compliance. This effect, known as internalization, can cause guilt when violating the norm and pride

*Development, and Regulation of Norms*, 96 MICH. L. REV. 338, 340 (1997) (Norms are “informal social regularities that individuals feel obligated to follow because of an internalized sense of duty, because of a fear of external non-legal sanction, or both.”); Eric A. Posner, *Law, Economics, and Inefficient Norms*, 144 U. PA. L. REV. 1697, 1699 (1996) (“A norm can be understood as a rule that distinguishes desirable and undesirable behavior and gives a third party the authority to punish a person who engages in the undesirable behavior. Thus, a norm constrains attempts by people to satisfy their preferences.”); Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 914 (1996) (“[W]e might, very roughly, understand ‘norms’ to be social attitudes of approval and disapproval, specifying what ought to be done and what ought not to be done.”).

4. See Jones, *supra* note 3, at 546 (explaining that social norms make persons aware of what is generally expected of them when they act).

5. See *id.* (“[S]ocial norms also may be the product of custom and usage, organizational affiliations, consensual undertakings and individual conscience.”).

6. 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 476 (Peter Newman ed. 1998) [hereinafter PALGRAVE DICTIONARY] (“After one eats in a restaurant, that one has to leave a tip is a social norm, and that one has to pay for the food is law.”).

7. See Robert D. Cooter, *Decentralized Law for a Complex Economy: The Structural Approach to Adjudicating the New Law Merchant*, 144 U. Pa. L. Rev. 1643, 1661 (1996) (crediting Von Wright with providing a practical framework in which to direct human behavior: an absolute and official norm “states that each member of a certain class of people (norm’s subjects) has an obligation (norm’s character) to do something (norm’s act) in certain circumstances (norm’s conditions), subject to a penalty for noncompliance (norm’s sanctions)”). See also GEORG HENRIK VON WRIGHT, NORM AND ACTION: A LOGICAL ENQUIRY 70-92 (1963). Pure rational choice theorists consider sanctions the sole reason actors comply with social norms. See generally William T. Bianco & Robert H. Bates, *Cooperation by Design: Leadership, Structure, and Collective Dilemmas*, 84 AM. POL. SCI. 133 (1992).

when obeying it.<sup>8</sup> Keeping confidences and telling the truth are typical examples of internalized norms, which often complement a person's individual moral code.

One can also view norms as obligations, as distinguished from mere tendencies of human behavior.<sup>9</sup> For example, taking off one's hat when entering a furnace room to escape the heat is a regularity or a tendency of behavior, whereas taking off one's hat when entering a church is an obligation.<sup>10</sup>

Norms take on different levels of intensity depending on the circumstances and actors involved.<sup>11</sup> Norms therefore are malleable rather than static, and capable of growth and decay.<sup>12</sup> For example, varying only the circumstances involved and holding all other factors constant, the obligation Jane feels to say "excuse me" when she bumps into someone at a crowded and noisy concert is almost certainly less than the obligation she feels to say "excuse me" to someone in a supermarket on a Sunday morning. On the other hand, holding constant all factors but the actors involved, the obligation Jane feels to say "excuse me" to the total stranger she bumped into likely exceeds the obligation she feels to say "excuse me" to her best friend.

Just as one must define social norms to properly understand norm theory, one must also discuss what social norms are *not*. Social norms are not self-imposed.<sup>13</sup> Self-imposed norms have no relation to others, and as such, are

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8. See Cooter, *supra* note 7, at 1665.

9. See McAdams, *supra* note 3, at 350. (explaining that norms are obligations because they are governed by a non-governmental risk of sanction); see also EDNA ULLMAN-MARGALIT, *THE EMERGENCE OF NORMS* (1977) (presenting a philosophical framework for understanding norms as obligations); VON WRIGHT, *supra* note 7, at 70-92 (discussing the importance of defining norms as obligations in the context of game theory). However, there is a strand of literature, typically found in the social sciences, that views norms as central tendencies of human behavior. See, Cooter, *supra* note 7, at 1656-57.

10. Cooter, *supra* note 7, at 1656.

11. Robert Axelrod first advanced this concept by explaining that "a norm exists in a given social setting to the extent that individuals usually act in a certain way and are often punished when seen not to be acting in this way." See Axelrod, *supra* note 3, at 1097. Axelrod's well-known norms game investigates the growth and decay of norms, rather than viewing their existence as static and binary. The norms game studies how a population's varying levels of boldness and vengefulness determine when and if norms will be violated and phased out over time. The results indicate an inverse relationship between boldness and vengefulness. When the level of vengefulness is high, the individual is less likely to violate a given norm; however, when vengefulness is low, boldness takes over and deviation from the norm increases. The purpose of the game is to gain an understanding of the conditions under which norms develop to be able to properly foster the creation of norms. See Axelrod, *supra* note 3, at 1099-1100.

12. Axelrod proposes that understanding norms in a given social setting "makes the existence of a norm a matter of degree, rather than an all or nothing proposition, which allows one to speak of the growth or decay of a norm." *Id.* at 1097. The degree of existence depends on the extent to which individuals are punished for not acting in a usual way. *Id.*

13. See JON ELSTER, *RATIONALITY AND SOCIAL NORMS* 109, at 112 (referring to self-imposed

not social.<sup>14</sup> Adherence to a certain diet and following a daily exercise routine are examples of self-imposed norms.<sup>15</sup> In addition, practices that may affect others, and are thus social in nature, but are void of normative content, are not norms.<sup>16</sup> Mere attendance at a public lecture series or lunch with friends may be social, but neither are normative.<sup>17</sup> Furthermore, norms, as used in this Article, also do not include of mere average or normal behavior, such as using an umbrella when it rains or wearing mittens in the cold.<sup>18</sup>

Finally, as alluded to earlier, social norms, in their truest sense, are not enforced by legal sanctions.<sup>19</sup> Laws can and do attempt to reinforce favorable normative behavior, but norms in their purest form are not driven by legal obligations.<sup>20</sup> One does not pay the bill after eating at a restaurant because of an obligation imposed by society; paying the bill is required by law, not a social norm.<sup>21</sup> However, the obligation to tip the server is not a legal obligation; it is a social obligation and thus a norm in the fullest sense.<sup>22</sup>

### 1. *Collective Action*

Collective action is a fundamental aspect of norm theory, as is any facet of human behavior in the absence of legal constraints. Collective action, or in other words, people acting collectively for a common cause, often presents a problem because people need powerful incentives to act.<sup>23</sup> Acting for the

norms as “private norms”).

14. Jones, *supra* note 3, at 546 (Social norms are not simply “self-imposed rules or standards that have no relation to others . . . or practices that . . . have no normative content. . . . The former are not ‘social’; the latter are not ‘norms’.”).

15. While the motivation behind these activities might very well be imposed by society the actions themselves are not social.

16. Jones, *supra* note 3, at 546.

17. *Id.* This is not to say that these practices could never be normative given proper circumstances. For instance, in a social circle of colleagues, a weekly lunch engagement may very well be a norm that carries sanctions for noncompliance.

18. Cooter distinguishes social scientists’ common use of the term, “norm” to refer to average or normal behavior. He also explains that even though economic models may ignore obligation as a characteristic of norms, the distinction is relevant when defining the relationship between norms and the law. Cooter, *supra* note 7, at 1656-57.

19. McAdams, *supra* note 3, at 350-51. *But see*, Jones, *supra* note 3, at 546 (including rules and standards enforced by legal sanctions in definition of norms).

20. *See* discussion *infra* Part V.

21. PALGRAVE DICTIONARY, *supra* note 6, at 476.

22. *Id.*

23. *See* Jonathan Bendor & Dilip Mookherjee, *Institutional Structure and the Logic of Ongoing Collective Action*, 81 AM. POL. SCI. REV. 129 (1987) (addressing why large groups have especially difficult collective action problems because of conflicts with individual interest); Stephen Crowley, *Barriers to Collective Action: Steelworkers and Mutual Dependence in the Former Soviet Union*, 46 WORLD POL. 589 (1994) (studying why steel workers in Russia have remained silent in the face of unemployment and economic upheaval); Mark I. Lichbach, *What Makes Rational Peasants*

greater common good may not be enough to induce people to act when weighed against the personal sacrifices that are made when acting collectively.<sup>24</sup>

Consider a classic “first order” collective action problem—employee picketing. The simple task of getting people to act collectively can prove challenging because stronger incentives often exist to act in one’s self-interest, rather than in the interest of the group. Unions are a mechanism designed to bring about solidarity among workers and collective action is vital to their success. Unless workers act as a group, the entire picketing process will fail as the employer will only suffer when a significant number of employees refuse to work. And, typically, employee demands are only taken seriously when the employer suffers. Consequently, companies often create attractive individual benefits to combat collective action among employees.

The Internet also suffers from collective action problems. For instance, individual Internet users never truly embraced a search protocol called ANSI/NISO Z39.50, even though it could have brought about a revolution in searchability—certainly a collective good as far as the Internet is concerned.<sup>25</sup> Apparently, the individual costs<sup>26</sup> imposed on publishers of

*Revolutionary?: Dilemma, Paradox, and Irony in Peasant Collective Action*, 46 *WORLD POL.* 383 (1994) (explaining that peasants lack the incentive to rebel because the private costs outweigh the public benefits); Edward N. Muller & Karl-Dieter Opp, *Rational Choice and Rebellious Collective Action*, 80 *AM. POL. SCI. REV.* 471 (1986) (criticizing rational choice models that use individual material benefit to characterize average citizen’s incentive for large scale political revolution and proposing public good as an appropriate alternative).

24. Lawrence Lessig discusses collective action in the context of social meaning and provides a model illustration. Imagine a village with a common wine vat representing a common good for the village. Each of the villagers is told that they are to pour a pitcher of wine into the vat so that the entire village has a common vat of wine to share. Each villager may conclude that if the other villagers all pour wine into the vat, then it will not make a difference if a single pitcher of water is mixed into the vat. Pouring water, rather than wine, into the vat therefore benefits the individual villager who avoids parting with any wine, and yet the common vat, from which the villager will presumably drink, will not be significantly tainted. Moreover, each villager may also suppose that if the others all pour water into the vat, a single pitcher of wine will not save the drink. Thus, regardless of what the other villagers do, it makes no sense for the individual to pour wine into the vat. We see that often the common good incentive may not suffice to encourage individuals to act in a common interest; individual incentives may also need to be available. See Lawrence Lessig, *The Regulation of Social Meaning*, 62 *U. CHI. L. REV.* 943, 993-94 (1995). For discussion of social meaning see *infra* note 114.

25. ANSI/NISO Z39.50 is an American National Standard Institute (ANSI)/National Information Standards Organization (NISO) protocol for information retrieval. “Z39.50 is a computer-to-computer communications protocol designed to support searching and retrieval of information—full-text documents, bibliographic data, images, multimedia—in a distributed network environment.” William Moen, *The ANSI/NISO Z39.50 Protocol: Information Retrieval in the Information Infrastructure, What is Z39.50?* (visited Aug. 9, 1999)

<<http://www.cni.org/pub/NISO/docs/Z39.50-brochure/50.brochure.toc.html>>. Furthermore, “Z39.50 makes it easier to use large information databases by standardizing the procedures and features for

Web content were too high to bring about collective action. While the Z39.50 protocol was extremely useful, publishers viewed it as relatively complicated and burdensome to implement and thus did not support its implementation.<sup>27</sup>

The “second order” collective action problem examines enforcement issues rather than the collective act itself, as addressed by the “first order” collective action problem described above.<sup>28</sup> Second order collective action problems are a common issue in norm theory, because actors who seek to alter norms are confronted with a second order collective action dilemma.<sup>29</sup> If others enforce the norm, the individual can acquire the benefits without bearing the enforcement costs.<sup>30</sup> If others do not enforce the norm, and the individual bears the enforcement costs, the individual’s solo efforts are wasted.<sup>31</sup> The second order collective action problem recognizes that the individual is better off not bearing the enforcement cost and either gaining the benefit through the efforts of others or not wasting her efforts at all.<sup>32</sup>

Again, think about the employee picketing example. There is often a strong incentive to cross the picket line because an employee can gain all of

searching and retrieving information. Specifically, Z39.50 supports information retrieval in a distributed, client and server environment where a computer operating as a client submits a search request (i.e., a query) to another computer acting as an information server.” *Id.* at <<http://www.cni.org/pub/NISO/docs/Z39.50-brochure/50.brochure.part01.html>>.

26. The term “cost” used throughout this Article does not necessarily imply a monetary loss but rather an emotional, mental, or personal punishment.

27. Index Data, *Welcome to Index Data* (last modified Mar. 25, 1999) <<http://www.indexdata.dk/>> (acknowledging the benefits and complexities of the Z39.50 protocol for Web designers).

28. The difference between the first order and the second order collective action problem is slight, yet meaningful. Because the second order collective action problem considers the sanctioning issues involved in collective action, it is particularly relevant in studying the mechanics of norm origin theory discussed *infra* in Section IV.

29. See Sunstein, *supra* note 3, at 911 (explaining that an individual who desires change faces a collective action problem if the prevailing social norms do not support such change). See generally Lessig, *supra* note 24, at 993-1000; McAdams, *Regulation of Norms*, *supra*, note 3, at 353-54.

30. See McAdams, *supra* note 3, at 353-54.

31. See *id.* at 352.

32. See *id.* The second order collective action problem is also discussed in the context of the “free rider problem” in rational choice literature. As Mancur Olson, Jr., explains:

Indeed, unless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in the common interest, *rational, self-interested individuals will not act to achieve their common or group interests*. In other words, even if all of the individuals in a large group are rational and self-interested, and would gain if, as a group, they acted to achieve their common interest or objective, they will still not voluntarily act to achieve that common or group interest.

David Sciulli, *Weaknesses in Rational Choice Theory’s contribution to comparative Research*, in MANCUR OLSON, JR., *THE LOGIC OF COLLECTIVE ACTION 2* (1965). See also, Russell Hardin, *Collective Action* (1982); *Rational Choice Theory, Advocacy and Critique* 161, 162 (James S. Coleman & Thomas J. Fararo eds., 1992); James S. Coleman, *Foundations of Social Theory* 14 (1990); Michael Hechter, *Principles of Group Solidarity* 40 (1987).



the benefits of the strike, while avoiding any of the costs. Conversely, if the employee decides to picket, and others do not join, the employee's efforts are wasted and may even lead to additional sanctions. The result, therefore, is a rather strong incentive for individual indolence rather than collective action.<sup>33</sup>

Consider a second order collective action problem that persists within cyberspace. Most Internet users abhor "spam"<sup>34</sup> due to the burden that the behavior inflicts on them. Even though spam is socially costly to cyber-society due to the bandwidth it greedily occupies and the cost to individual users who receive unwanted e-mail, spam occurs frequently because the spammers gain all the benefits but incur only a fraction of the costs. Clearly, Internet users would benefit if they spent the costs essential to effectively sanction spammers. However, the amount any one user is willing to spend to sanction the behavior is likely insufficient to effectively discourage it. Thus, collective action is the answer. However, because the participation of many users is necessary and individual users feel that their contribution will not suffice to cause the norm to succeed or fail, a second order collective action problem persists.<sup>35</sup> In fact, throughout the relatively brief history of cyberspace, individual users have made multiple attempts to sanction spammers, all of which proved unsuccessful due to collective action

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33. Thus the ethos of the trade union movement has turned picket-line crossing and "scabbing" into a prohibitory norm among its members.

34. Spam has been defined as:

unsolicited e-mail on the Internet. From the sender's point-of-view, it's a form of bulk mail, often to a list culled from subscribers to a Usenet discussion group or obtained by companies that specialize in creating e-mail distribution lists. To the receiver, it usually seems like junk e-mail. In general, it's not considered good netiquette to send spam. It's generally equivalent to unsolicited phone marketing calls except that the user pays for part of the message since everyone shares the cost of maintaining the Internet.

*WhatIs?Com* (visited Aug. 9, 1999) <<http://www.whatIs.com>>.

35. McAdams offers littering as another second order collective action example. Litter imposes significant costs on everybody, yet one can easily see why the behavior continues, because a litterer reaps all the benefits, but only a small portion of the collective cost. One might expect a norm against littering, due to the costs litter imposes on everybody. But, in order for the group to sanction litterers effectively, the amount that each individual must spend on enforcement must exceed the cost imposed on each person when encountering the litter. In other words, individuals are not willing to spend the necessary amount to punish the behavior effectively, and they feel as if their contribution will neither make nor break the norm; thus they are better off not bearing the sanctioning costs. McAdams, *supra* note 3, at 353-54. See also, e.g., Clayton P. Gillette, *Plebiscites, Participation, and Collective Action in Local Government Law*, 86 Mich. L. Rev. 930, 973 (1988) (analyzing of rational conduct by voters and their consideration of the long-term effects of their decisions on the community at large); Lessig, *supra* note 24, at 967-68 (discussing how a rule requiring helmets in the National Hockey League allowed players to avoid the stigma of looking less "macho" than their teammates and still protect themselves).

problems.<sup>36</sup> Individual vigilantism, no matter how dedicated, cannot replace collective action.

Collective action problems are as prevalent in cyberspace as they are in society, as evidenced by the above examples. Due to the considerable impact collective action has on user behavior, consideration of collective action issues necessarily accompanies an understanding of cybernorms. Section IV will examine more specifically how the second order collective action problem presents a quandary when discussing the origins of social norms.

## 2. *Rational Choice Theory*

Social norms do not necessarily predict human behavior. For example, even though the social norm suggests a fifteen percent tip after a meal at a restaurant, one may purposely decide to leave more or less. Even when norms impose obligations, human beings must assess the subjective costs and benefits of their actions within the context of social norms.<sup>37</sup> Rational choice theory looks at incentive structures that govern the choices that a “rational” or “reasonable” person would make under a given set of circumstances—circumstances that typically include obligations imposed by social norms.<sup>38</sup>

Rational choice theory comes in many shapes and sizes, but generally operates under four basic principles.<sup>39</sup> The first is that individual actors typically act in their own interest and rarely in the interests of the group.<sup>40</sup> Second, actors’ subjective interests must be taken as a given.<sup>41</sup> Third, any society’s existing structure of rights and duties is also given or random.<sup>42</sup> Fourth, the effort of actors to maximize their own wealth and self-interest

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36. One approach to individual enforcement is the “cancelbot.” A cancelbot is a program that looks for spam, spew, cross-posts, and other netiquette violations on Usenet and erases them from newsgroups. For example, Cancelmoose, a now retired cancelbot, targeted spam. Generally, cancelbots are voluntarily run by Usenet regulars, and expected to be honored by site administrators. See Mark Frauenfelder, *Usenet’s Etiquette-Enforcement Agency* (visited Apr. 9, 1999) <[http://www.wired.com/news/print\\_version/wiredview/story/5262.html](http://www.wired.com/news/print_version/wiredview/story/5262.html)>. Cancelmoose was a successful cancelbot, at its peak erasing approximately 1.8 million spams in August of 1997. The Cancelmoose Web site has a graph of the number of spams identified by Cancelmoose from October 1995 to August 1998. *The Cancelmoose[tm] Homepage* (visited Aug. 8, 1999) <<http://www.cm.org>>. Cancelmoose was unanimously embraced by the readership of newsgroups. *The Jargon File: Cancelmoose[tm]* (visited Aug. 8, 1999) <[http://www.sunsite.ualberta.ca/jargon/noframes/Cancelmoose\[tm\].html](http://www.sunsite.ualberta.ca/jargon/noframes/Cancelmoose[tm].html)>.

37. See Sunstein, *supra* note 3, at 940.

38. See generally RATIONAL CHOICE THEORY, ADVOCACY AND CRITIQUE (James S. Coleman & Thomas J. Fararo eds., 1992).

39. See Sciuilli, *supra* note 32, at 162.

40. See *id.* (explaining that the principle motivations of rational actors are to maximize wealth or what interests them subjectively).

41. See *id.* at 162-63.

42. See *id.* at 163.

better serves the common good of collective prosperity than any action to restrain these rational tendencies with non-rational norms.<sup>43</sup>

Theorists have many contrasting perspectives of rational choice theory. For example, economists typically believe that rational choice theory explains the same behavior as norm theory, but with a more detailed view. Other scholars believe that rationality explains certain behavior and norms describe separate and distinct behavior. I adopt the view that actors employ a unique combination of rational choice and norms when faced with a decision. The extent to which each is applied depends entirely on the substance of the decision and the actor concerned.<sup>44</sup>

In every situation, both norms and rationality interact with varying degrees of intensity, depending on the specifics. Norms and rationality may compromise interests to produce a decision; they may also counteract and limit each other. For instance, at times, social norms constrain the rational pursuit of self-interest.<sup>45</sup> At other times, self-interest limits adherence to norms.<sup>46</sup> The human mind is extremely complex; to maintain that people only act in rational self-interest is to diminish fundamental human conscience.

Cass Sunstein offers a particularly elucidating and empirical example of how rational choice and norms interact. What he terms the “economists’ game” consists of two players, one of whom is given money.<sup>47</sup> This player is told that she must give part of the money to the second player, but in no way is it suggested what portion of the money she should give to player two.<sup>48</sup> If the second player accepts the money, both players may keep their portion of the money.<sup>49</sup> If the second player rejects the money, both get nothing.<sup>50</sup> The

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43. *See id.*; *See also* HECHTER, *supra* note 32, at 73.

44. *See* ELSTER, *supra* note 13, at 114. (“It seems obvious that both rationality and social norms matter in the explanation of action. One may disagree as to their relative importance, but one would have to be fanatic of one kind or another to assign exclusive importance to the one and not importance to the other. The question then becomes how to divide up the territory. In my opinion, the least promising form of eclecticism would be to say that some actions are wholly guided by social norms while others can be explained in terms of rational choice without any residual. A more general and more satisfactory formulation, of which the previous proposal is a special case, is that in each individual action both rationality and social norms come into play.”).

45. *See id.*

46. *See id.* (“Sometimes, the rational pursuit of self-interest is constrained by social norms . . . . Conversely, social norms may be constrained by self-interest; people do not stick to them if the costs . . . of doing so become too great.”) Thus, for instance, even if one is completely alone, one may still feel compelled to drop a tip in a jar, and guilty if one does not. On the other hand, one may choose not to vote on Election Day if the opportunity to do something else presents itself.

47. Sunstein also refers to this empirical study as the “ultimatum game.” Sunstein, *supra* note 3, at 904.

48. *Id.*

49. *Id.*

rules permit only one interaction between the players, so that no negotiating dynamics affect the outcome.<sup>51</sup> Both players know the rules. Economists predict that player one will part with one penny, as it is still in player two's best interest to accept the penny rather than reject it.<sup>52</sup> However, the results of this study found that offers typically ranged between 30% and 40% of the total money, and often there was a 50%-50% division.<sup>53</sup> Interestingly, the second player often rejected offers of less than 20%.<sup>54</sup>

People are not pure rational actors. Surely player two would be "better off" with one dollar, or even one penny, but instead chooses in many instances to reject an offer of less than 20%. In many situations, such as the one above, social norms limit rational actions. Likewise, rational thinking often leads to deviation from social norms.<sup>55</sup> Neither social norms nor pure rational choice can individually predict human responses; often one must consider both to understand the underpinnings of human behavior.

### *B. What are Cybernorms?*

Upon the framework presented in the preceding section, I define cybernorms as informal social standards of obligatory user behavior in cyberspace. In other words, cybernorms are practices that have developed through mutual user assent and in deference to the preferences of other users, rather than mere tendencies of user behavior. Checking one's e-mail when logging onto the Internet is a user tendency, not a cybernorm; responding to an e-mail message promptly is an obligation and thus invokes cybernorm concepts.<sup>56</sup>

Many informal rules for Internet user behavior have developed over time; these rules are called "netiquette," a shorthand term for network or Internet etiquette.<sup>57</sup> Netiquette is a set of standards for behaving *appropriately* online.<sup>58</sup> Most netiquette rules are cybernorms because Internet users adhere

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50. *Id.*

51. *Id.*

52. *Id.*

53. *Id.* at 904-05.

54. *Id.* at 904.

55. Social norms and the shame people experience when they violate social norms explain why models that assume individuals will act with rational self-interest do not predict human behavior accurately. Further, the relationship between rationality and social norms is not necessarily clear from the standpoint of the individual actor. *See id.* at 909.

56. Generally 48 hours is viewed as a good rule of thumb.

57. *See* Virginia Shea, *The Core Rules of Netiquette* (visited Apr. 9, 1999) <<http://www.albion.com/netiquette/introduction.html>> (explaining that network etiquette is the etiquette of cyberspace).

58. Etiquette refers to behavior indicative of good breeding or what is expected in social and

to these rules, even though they are not formally or legally enforced and may be contrary to users' private preferences.<sup>59</sup> One's mindfulness of when it is appropriate to attach a file to an e-mail message provides an example of netiquette.<sup>60</sup> Including the word "long" in the subject header of an e-mail message to notify the recipient that the message consists of over one hundred lines and will take time to read and respond to is another example of a netiquette rule indicative of cybernorm behavior.

However, many factors affect obligations and expectations, including the circumstances and the players involved.<sup>61</sup> For instance, cybernorms impose an unstated, but expected, response-time for most e-mail messages. If a sender knows the recipient uses e-mail frequently, the sender may have higher expectations regarding what she deems an appropriate response period, than if she knows the recipient checks his e-mail only once a week. A sender will often infer the relative import of the message to the recipient based on the swiftness of a response. Ordinarily, if a response is not received in two to five days, a sender will grow uncomfortable. While countless factors affect user expectations, common standards still dictate when a user should respond to a message.<sup>62</sup>

Cybernorms also endorse informality. Users generally expect a more informal tone in e-mail messages than other written communications and employ a conversational tenor in e-mail—similar to voice mail exchanges.<sup>63</sup> If an e-mail message has a formal tone, the recipient may misinterpret the e-mail as angry or serious, even if the sender's intent is neutral. Such an informal tone results from three factors. First, e-mail customarily involves a

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professional contexts. *See id.*

59. Some netiquette rules are merely instructive or indicative of average behavior, and thus not cybernorms. For example, if a user suspects that an e-mail message has been lost and not received by the recipient, she should ask others in her office if they have been having problems with the local e-mail system. If they have not encountered any problems, she should confirm the e-mail address of the recipient. If the address is correct, she should inquire whether the recipient has been having problems with e-mail. *Id.* at <<http://www.albion.com/netiquette/book/0963702513p56.html>>. *See also*, Sally Hambridge, *RFC 1855, Netiquette Guidelines*, (last modified Oct. 25, 1995) <<http://www.dtcc.edu/cs/rfc1855.html>> (recommending that users "[v]erify all addresses before initiating long or personal discourse").

60. *See* Shea, *supra* note 57, at <<http://www.albion.com/netiquette/book/0963702513p53.html>> (explaining that one should not attach a file to an e-mail message when a simple note included in the message would suffice).

61. *See* Axelrod, *supra* note 3, at 1097.

62. *See* Shea, *supra* note 57, at <<http://www.albion.com/netiquette/book/0963702513p91.html>> (emphasizing that there is no excuse for failure to check your e-mail twice a day).

63. *See id.* at <<http://www.albion.com/netiquette/book/0963702513p91.html>> (explaining that the conventions for professional e-mail and social e-mail are different in that work e-mail is more formal and, if external, often uses signature files, whereas social e-mail often uses wit to great effect). *See also* Hambridge, *supra* note 59, at <<http://www.dtcc.edu/cs/rfc1855.html>>.

spontaneous interchange, written extemporaneously and with less consideration than a letter.<sup>64</sup> Secondly, e-mail is relatively simple to send as compared to a letter written on paper. It is thus common to send an e-mail that is a spur of the moment reaction, much like a telephone message. Finally, norms established by early users of e-mail, who commonly endorsed a relaxed attitude, greatly influenced the cybernorm of e-mail informality.<sup>65</sup>

Another e-mail cybernorm is the use of asterisks and underscores to denote boldface and underline, respectively.<sup>66</sup> Such practices resulted from text editor e-mail software that either lacked the ability to display these features, or made them overly burdensome to users who instead developed their own method of emphasizing text. Additionally, although many current e-mail packages have boldface, italics, and other special features, they usually require both the user and recipient to use the same e-mail program for compatibility reasons. Interestingly enough, this cybernorm, which originated through e-mail communications, has been recognized and carried over to other digital applications. For instance, Microsoft Word's auto correct function will automatically change “\*bold\*” to “**bold**” and “\_italics\_” to “*italics*”.

Cybernorms also caused the elimination of certain HyperText Markup Language (“HTML”)<sup>67</sup> tags<sup>68</sup> and Web standards. For instance, Netscape<sup>69</sup> introduced the “blink tag”<sup>70</sup> prior to the release of HTML 3.2.<sup>71</sup> Almost

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64. See *id.* at <<http://www.albion.com/netiquette/book/0963702513p47.html>> (attributing the informality of e-mail to the ease of the medium, which is similar to a phone call rather than a written memo).

65. See *id.* Shea refers to the early Internet users as hackers. For a discussion of how group norms develop, see *infra* note 89.

66. See Hambridge, *supra* note 59, at <<http://www.dtcc.edu/cs/rfc1855.html>> (recommending the use of symbols for emphasis when writing e-mail); See also Arlene H. Rinaldi, *The Net: User Guidelines and Netiquette, Electronic Communications* (visited Oct. 27, 1998) <<http://www.fau.edu/netiquette/net/elec.html>> (noting that words or phrases written entirely in uppercase are seen as shouting).

67. The development of both Hypertext Markup Language (HTML) and HyperText Transfer Protocol (HTTP) explains in part the effectiveness of sanctions against annoying variations in HTML tags and Web standards. Many organizations, individuals, and companies had a hand in the development of HTML and HTTP. The absence of any single authority with the power to impose new protocols on users therefore meant that proposed standards and technology could not deviate greatly from expectations of the vast number of people who participate in the Web's development. See DAVE RAGGETT ET AL., *HTML 3: ELECTRONIC PUBLISHING ON THE WORLD WIDE WEB* 13 (1996).

68. Though not unique to the Web, HTML underpins many of the original features of the Web. HTML tags, delimited by angle brackets, < >, define, among other things, formatting, document image, and the Universal Resource Locator (“URL”) links which allow the user to “surf” from one page to the other. See LARRY ARONSON, *HTML MANUAL OF STYLE* 1, 2 (1994).

69. Netscape owns one of the most widely used browsers in the world. For more information on Netscape see *Netscape Netcenter* (visited Aug. 4, 1999) <<http://www.netscape.com/>>.

70. The blink HTML tag caused the embedded text to literally blink on and off on the Web page. See *Whatis.com, supra* note 34, at <<http://www.whatis.com/blinktag.htm>>.

immediately, users came to the consensus that the tag was annoying, undignified, and adolescent, and collectively boycotted its use.<sup>72</sup> Web page authors who continued to use the tag after it was deemed passé suffered sanctions such as critical e-mail or public Usenet<sup>73</sup> comments.<sup>74</sup> Within weeks, Internet users witnessed the coming and going of a new tag simply because of informal user consensus.<sup>75</sup> The widely anticipated advent of push technology suffered a similar demise.<sup>76</sup> Industry expected push technology to revolutionize the Web and positively impact Internet commerce with its ability to deliver information to the user's computer without the real-time request from the user. However, based on cybernorms, users viewed push technology as intrusive and reacted negatively.<sup>77</sup> Thus, Internet norms spurred an informal user consensus, eliminating a standard that cost industry a great deal of time and money to develop.<sup>78</sup>

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71. See *id.* See also LAURA LEMAY, WEB PUBLISHING WITH HTML IN 14 DAYS 163 (1995) (describing the blink tag as an undocumented feature, or what is known as an 'Easter egg').

72. See generally LEMAY, *supra* note 71, at 163 (stating that most Web Designers avoid the use of blink tags and find them ineffective). See also JCR Design and Consulting, *The BLINK-Free Web Page* (last modified Apr. 11, 1997) <<http://www.mcs.net/~jcr/blinkfree.html>> (warning that blink tags will not attract readers to your site, but simply annoy them); Alan Levine, *Don't Blink!* (visited Aug. 4, 1999) <<http://tabnet.com/support/writinghtml/tut/tut17.html>> (imploing authors of Web pages to value content over attention grabbers).

73. What is?com explains Usenet as follows:

Usenet is a collection of notes on various subjects that are posted to servers on a worldwide network. Each subject collection of posted notes is known as a newsgroup. There are thousands of newsgroups and it is possible for you to form a new one. Most newsgroups are hosted on Internet-connected servers, but they can also be hosted from servers that are not part of the Internet. . . .

Most browsers, such as those from Netscape and Microsoft, provide Usenet support and access to any newsgroups that you select. On the Web, Deja News and other sites provide a subject-oriented directory as well as a search approach to newsgroups and help you register to participate in them. In addition, there are other newsgroup readers, such as Knews, that run as separate programs.

*What is?com* (last modified Nov. 27, 1999) *supra* note 34, at <<http://www.what is.com/usenet.htm>>.

74. For an amusing example of an informal Web sanction of blink tags, see Jeffrey M. Glover, *Sucky to Savvy: Blink* (last modified Oct. 26, 1999) <<http://jeffglover.com/ss/sucky01.html>> (giving blink tags a "sucky" rating of ten out of ten and offering some more acceptable alternatives for drawing user's attention).

75. This example also illustrates the speed at which cybernorms are adopted and the effectiveness of collective action. See discussion *supra* Part II.A.1.

76. My thanks to Tom Bell for bringing this example to my attention. Push technology involves a "[w]eb server ostensibly 'push[ing]' information to the user rather than waiting until the user specifically requests it." *What is?com, Webcasting (push technology)*, *supra* note 34, at <<http://www.what is.com/webcasti.htm>>.

77. See Paul Boutin, *HotWired Magazine, Who Says You Can't Take It with You?* (visited Aug. 9, 1999) <<http://www.hotwired.lycos.com/packet/boutin/97/21/index2a.html>> (explaining that at a push media seminar in San Francisco, an informal poll of attendees showed that although all were anxious to access information faster, only a handful of attendees actually used widely available existing push technology software).

78. The sanctioning of blink tags and push technology provide examples of successful collective

Norms also include rules deliberately formulated by private institutions such as churches, corporations, unions, and trade associations.<sup>79</sup> While there are no formal mechanisms to enforce such rules, the obligation to follow them is just as strong, if not stronger, without them. The Internet Engineering Task Force (“IETF”)<sup>80</sup> and the World Wide Web Consortium (“W3C”)<sup>81</sup> are two Internet institutions that function as cyberspace counterparts to traditional private institutions. Internet users consider the W3C and IETF as reputable and trustworthy Internet entities, just as one would view a church or trade association. Thus, users quickly adopt W3C and IETF standards, just as congregants or workers willingly adopt principles set by churches and unions.<sup>82</sup> The standards and protocols these entities endorse fall under the definition of cybernorms.<sup>83</sup>

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action that took place informally and without much structured effort. There are also numerous examples of carefully planned and organized successful collective action efforts in cyberspace, such as the “Campaign to Stop the Net Censorship Legislation” in response to the introduction of the Communications Decency Act of 1996. See Center for Democracy & Technology, *Campaign to Stop the Net Censorship Legislation* (visited Oct. 11, 1999) <[http://www.cdt.org/protest\\_alert.html](http://www.cdt.org/protest_alert.html)>.

79. See generally Lisa Bernstein, *Merchant Law in a Merchant Court: Rethinking the Code’s Search for Immanent Business Norms*, 144 U. PA. L. REV. 1765, 1771-1772 (1996) (discussing dispute resolution used by the National Grain and Feed Association); J. Mark Ramseyer, *Products Liability Through Private Ordering: Notes on a Japanese Experiment*, 144 U. PA. L. REV. 1823, 1828 (1996) (explaining the development of a privately ordered, products liability regime in Japan). But see Posner, *supra* note 3, at 1700 (discussing his definition of norms which “excludes the rules self-consciously formulated and issued by private institutions, such as trade associations”).

80. The IETF is an international organization that proposes standards for the Internet. The technical work is done by working groups that each address separate technical issues. The groups themselves are divided into areas overseen by Area Directors. The IETF has also implemented a system of appeals so that individuals can challenge proposed technology. *Overview of the IETF* (last modified Jan. 29, 1999) <<http://www.ietf.org/overview.html>>.

81. Founded in 1994, the W3C helps develop common protocols for the Web to ensure its interoperability. Specifically, the W3C provides “a repository of information about the World Wide Web for developers and users,” reference “code implementation to embody and promote standards”; and “[v]arious prototype and sample applications to demonstrate use of new technology.” The services are free and provided to anyone. See W3C, *About The World Wide Web Consortium* (last modified Apr. 14, 1999) <<http://www.w3.org/Consortium/>>.

82. It is worth noting that several Internet scholars who have promoted a private system of Internet governance, have also proposed that these and similar Internet organizations lead such a system. See, e.g., Henry H. Perritt, Jr., *Cyberspace Self-Government: Town Hall Democracy or Rediscovered Royalism?*, 12 BERKELEY TECH. L.J., 413 (1997); David R. Johnson & David G. Post, *And How Shall the Net be Governed? A Meditation on the Relative Virtues of Decentralized, Emergent Law* (visited Apr. 10, 1999) <<http://www.cli.org/emdraft.html>>. Some may argue that these organizations stand precariously near the edge of functioning as a government agency; however, these Internet institutions have never had the authority of law. Instead, they would lead a *private* governance system. Furthermore, these entities were chosen to lead a system of self-regulation because they have significantly shaped the growth of cybernorms.

83. Consider the cybernorm of HTML. HTML is the standard language used for publishing Web pages. The European Laboratory for Particle Physics (“CERN”) promoted HTML in response to a need for standardization on the Web. It is not the law to use HTML, and one could use other languages and formats for Web publishing, such as ASCII text or portable document format (“pdf”). RAGGETT,



Informal constraints on human behavior therefore exist in cyberspace, just as they do in society. As illustrated by the preceding examples, Internet users expected each other to act in certain ways, given certain situations, and may face sanctions for noncompliance. Now that I have explained the basic tenets of social norm theory and defined cybernorms, the next section may properly explore cybernorm evolution.

### III. CYBERNORM EVOLUTION

While cyberspace evolves as an independent community, it is certainly not a completely autonomous society. The Internet owes its genesis and continued existence to the minds of society that create the underlying technology; it is, in essence, dependent on the non-digital world as its architect. Yet over time, Internet users have established their own heterogeneous society, and within that society, their own homogeneous groups. The following sections consider this seemingly inextricable relationship between cybernorms and social norms.

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*supra* note 67, at 13.

American Standard Code for Information Interchange (ASCII), developed by the American National Standards Institute (ANSI), is “the most common format for text files in computers and on the Internet.” In an ASCII file, each alphabetic, numeric, or special character is represented with a 7-bit binary number (a string of seven 0s or 1s). 128 possible characters are defined.” *WhatIs?com, supra* note 34, at <<http://www.whatis.com/ascii.htm>>. ANSI “is the primary organization for fostering the development of technology standards in the United States.” ANSI works with industry groups and is the U.S. member of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC). *Id.* at <<http://www.whatis.com/ansi.htm>>.

Portable Document Format (PDF) is described as follows:

a file format that has captured all the elements of a printed document as an electronic image that you can view, navigate, print, or forward to someone else. PDF files are created using Adobe Acrobat, Acrobat Capture, or similar products. To view and use the files, you need the free Acrobat Reader, which you can easily download. Once you’ve downloaded the Reader, it will start automatically whenever you want to look at a PDF file.

...

The Acrobat product that lets you create PDF files sells in the \$200-300 range. . . . (The Reader itself is free and can be used as a plug-in with your Web browser or can be started by itself.)

*Id.* at <<http://www.whatis.com/pdf.htm>>.

### A. *The Relationship Between Social Norms and Cybernorms*

The first of three major premises of this Article is that cyberspace began as a homogeneous group within non-digital society and matured into a quasi-independent, heterogeneous society of its own. This section discusses how the Internet community metamorphosed from a group into a society; but first one must understand the exact nature of group norms and the distinction between *group* norms and *societal* norms, as cybernorm evolution depends heavily on shifts between these two systems.

*Group* social norms are informal rules of conduct that maintain the consistency of group behavior, whereas societal social norms involve behavior common to a society.<sup>84</sup> The economics and psychology literature describes groups as two or more people who possess reciprocal abilities to influence each other.<sup>85</sup> Groups also require a healthy interchange of group information regarding past and present events.<sup>86</sup> No critical mass defines when a group becomes a larger society; instead, scholars use the term “society” or “group” as a rough indication of the number and quality of actors involved.

Norms largely dictate group behavior due to members’ expectations and obligations.<sup>87</sup> Norms actually increase the efficacy with which group members interact with other members because of an enhanced ability to anticipate each other’s conduct.<sup>88</sup> Consequently, group norms tend to be stronger than societal norms.<sup>89</sup> Within a group, certain accepted regularities

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84. See MARVIN E. SHAW, *GROUP DYNAMICS: THE PSYCHOLOGY OF SMALL GROUP BEHAVIOR* 8 (1981); Daniel C. Feldman, *The Development and Enforcement of Group Norms*, 9 *ACAD. MGMT. REV.* 45, 47-53 (1984). See also DONELSON R. FORSYTH, *GROUP DYNAMICS* 163 (1990) (explaining that group norms are not external forces but internalized obligations of the individuals that make up a group); Richard H. McAdams, *Group Norms, Gossip, and Blackmail*, 144 *U. PA. L. REV.* 2237, 2241 (1996) (defining “group norms” as “customary patterns of behavior that individuals within a group feel obligated to follow”).

85. Psychologist Marvin Shaw defines group as “two or more people interacting with one another in such a manner that each person influences and is influenced by each other person.” SHAW, *supra* note 84. Shaw further posits that people join groups to satisfy one or more of the following needs: companionship, positive social identity, information or skills, and cooperation on projects. See *id.* at 5. Economists have also worked extensively in this area, as illustrated by Ellickson’s study of Shasta County ranchers’ informal practices of solving cattle disputes. Ellickson defines groups as “a social network whose members have credible and reciprocal prospects for the application of power against one another and a good supply of information on past and present internal events.” McAdams, *supra* note 84, at 2241-42. See also ROBERT C. ELLICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 177-82 (1991).

86. SHAW, *supra* note 84.

87. *Id.* at 4; Feldman, *supra* note 84, at 49.

88. Feldman, *supra* note 84, at 50. (“Norms tend to develop gradually and informally as group members learn what behaviors are necessary for the group to function more effectively.”).

89. The strength of group norms is due to several factors. First, groups tend to be homogeneous.

lead to extremely productive dialogue and exchange. For example, a commonly accepted interaction, particularly in the law school classroom, is instruction by the Socratic method. This normative behavior, which certainly has a beneficial function during dialogue between professor and student, would most likely evoke a negative reaction if taken out of the educational context, i.e., removed from the group culture that accepts and understands this behavior.

Of course, group norms exist in cyberspace as well. Groups in cyberspace promulgate their own regularities of behavior, many times against the grain of societal cybernorms. Consider a group of users in cyberspace known as "hackers." Hackers are technologically proficient, enjoy exploring computer systems, and are talented programmers.<sup>90</sup> Hackers have somewhat of a common language based largely on programming principles and idiosyncrasies.<sup>91</sup> Much of the normative behavior hackers exhibit contradicts

See McAdams, *supra* note 3, at 389; see also, FORSYTH, *supra* note 83, at 63 ("The similarity/attraction effect is a theory of group formation that assumes we like people who are similar to us in some way. People who have similar values and attitudes that we do reassure us our beliefs are accurate. This triggers a sense of unity and also suggests that future interaction will be conflict-free."). In other words, people "join" groups because they subscribe to a common understanding on a certain topic. Thus, differing opinions tend not to dilute group norms.

Second, group support or rejection of certain conduct disseminateS more easily in a small group. McAdams, *supra* note 3, at 389; See also FORSYTH, *supra* note 83, at 10. ("Size, per se, is not a critical quality of a group, but its indirect influence on other aspects of the group is considerable . . . groups may be so large that individual members can never influence every other member, and as a result interdependence is minimal.").

Third, risk of detection in a small group is higher since the smaller the group, the greater the probability of detecting noncompliance within the group. McAdams, *supra* note 3, at 389; see also FORSYTH, *supra* note 83, at 149 ("When it comes to social influence, size makes a difference. As the number of individuals in the group, in the majority, and in the minority changes, social influence waxes and wanes . . . the larger the unanimous majority facing the lone individual, the greater the rate of conformity.").

Finally, group norms are advantaged by opinions of fellow group members, which are more important than the opinions of strangers within a larger society. FORSYTH, *supra* note 83, at 163 ("[P]eople obey norms in order to fulfill personal expectations about proper behavior. Norms are not simply external constraints but internalized standards; members feel duty bound to adhere to the norms of the group since, as loyal members, they accept the legitimacy of the established norms and recognize the importance of supporting these norms.").

90. See Discovery Channel Online, *Hacker's Hall of Fame* (visited Aug. 9, 1999) <<http://www.discovery.com/area/technology/hackers/glossary.html>. The term hacker is to be distinguished from "cracker." A cracker is "[o]ne who breaks security on a system. Coined by hackers in defense against journalistic misuse of the term 'hacker.' The term 'cracker' reflects a strong revulsion at the theft and vandalism perpetrated by cracking rings. There is far less overlap between hackerdom and crackerdom than most would suspect." *Id.*

91. Humor infuses hacker language by toying with the relationship between the form of the words and their meaning. Examples include "too repetetitive," or "bad speling." A hacker might write "I'm cixelsyd today" to indicate "I'm dyslexic today." Hacker style often breaks with standard grammatical conventions and instead follows the syntax common to programming. The reason for this is understandable enough. Misplaced syntax can render an entire program useless. For instance,

what Internet users, as a society, expect or even condone.<sup>92</sup> Newsgroups and mailing lists also demonstrate group cyb norms. For instance, certain mailing lists or Usenet groups may welcome flames,<sup>93</sup> rants, or unsubstantiated rumors, while other lists may politely unsubscribe someone who exhibits such behavior.<sup>94</sup>

The Internet, as we know it today, grew out of a single homogeneous subculture of non-digital society into a truly diverse society of its own—one that includes countless groups, such as hackers, online shoppers, and the diverse array of Usenet groups. Who constituted this single homogeneous subculture of users which first populated the Internet? One must look to the origins of the Internet to answer this question.

The Internet's core technology was developed in the 1960's. The United States was in the midst of the Cold War and the Department of Defense recognized a dire need for a communications network that could survive a nuclear attack. The RAND Corporation, a U.S. military think-tank, proposed the idea of a decentralized network. This decentralized network would consist of a series of interconnected communication nodes, each with the ability to originate, pass, and receive messages. The path that each message took was irrelevant, and if one of the nodes was destroyed, the message could take numerous other routes to reach its destination. This network was named ARPAnet, after the Advanced Research Projects Agency, which developed technology critical to the network's existence.<sup>95</sup>

The Internet, as we know it, emerged in the early 1980's when the

hackers commonly put commas outside quotes because, for example, in a vi tutorial, putting the comma inside the quote "dd" would be incorrect syntax. Other examples include using capital letters to communicate that you are talking loudly, producing sound effects or actions by using angle brackets around a word, like <bang> or <grin>, and symbolizing you are talking slowly to someone, as if they were stupid or a child, by putting an asterisk around each word in your sentence, e.g., \*do\* \*you\* \*understand\* \*what\* \*I\* \*am\* \*telling\* \*you\*? THE NEW HACKER'S DICTIONARY 14-17 (Eric S. Raymond ed., 2d ed. 1993) [hereinafter HACKER'S DICTIONARY].

92. HACKER'S DICTIONARY, *A Portrait of J. Random Hacker, Sexual Habits*, *supra* note 91, at <[http://murrow.journalism.wisc.edu/jargon/jargon\\_64.html#SEC71](http://murrow.journalism.wisc.edu/jargon/jargon_64.html#SEC71)> (explaining that similar to hacker's general appearance, hackers as a community maintain counterculture values).

93. For definition of flame see *infra* note 108.

94. See Shea, *supra* note 57, at <<http://www.albion.com/netiquette/rule3.html>> (explaining that unsubstantiated gossip may be acceptable in a TV discussion group, but very unpopular on a journalist's mailing list).

95. In 1969 the first Interface message processor, a predecessor to today's routers, was installed at UCLA and ARPAnet officially was born. ARPAnet developed the technology called Transmission Control Protocol/Internet Protocol (TCP/IP), which is still used today. TCP/IP is the basic communication language or protocol of the Internet. It can also be used as a communications protocol in the private networks called intranets and in extranets. When you are set up with direct access to the Internet, your computer is provided with a copy of the TCP/IP program just as every other computer that you may send messages to or get information from also has a copy of TCP/IP. *Whatis?com* (last modified Jan. 25, 2000) *supra* note 34, at <<http://www.whatis.com/tcpip.htm>>.

National Science Foundation (NSF) funded the establishment of regional research and academic networks throughout the United States based on the same technology developed for ARPAnet.<sup>96</sup> In 1986, NSF linked these regional networks into a single high-speed network, the result of which was NSFNet—the original backbone of the Internet.<sup>97</sup> In 1994, NSF began shifting its funding away from directly supporting backbone services and encouraged private entities to take over the responsibility.<sup>98</sup> Today commercial companies, such as AOL and MCI WorldCom have taken over the backbone of the Internet.

Cyberspace began as a subculture of real world society, populated by technically inclined academics, who were the primary users of the NSF-funded backbone in the late 1980's.<sup>99</sup> These academics were generally an elite group of scientists, such as engineers, physicists, computer scientists, and mathematicians, who undoubtedly occupied a unique niche of society. They formed a culture that awarded respect based upon intellectual abilities rather than physical appearance. It was (and still is in many ways) a male-dominated culture dedicated to research, which had little time to fret over the

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96. Jamie N. Nafziger details the development of the Internet as follows:

In 1983, the U.S. Defense Communications Agency mandated the use of the TCP/IP protocol for all ARPAnet hosts. This established a standard which helped the Internet grow.

... In addition, the National Science Foundation (NSF) developed NSFnet which connected university campuses to six supercomputing centers. By 1986, NSF had expanded its efforts into a backbone network. NSF also helped fund regional networks intended to connect universities to NSFnet. The original NSFnet backbone connected six sites by 56-kbps data circuits. This backbone was quickly overloaded. From 1982 to 1986, the backbone was upgraded to the T1 rate (1.544 Mbps). In 1987, NSF awarded a contract to Merit, Inc. (Michigan Education and Research Infrastructure Triad) in partnership with MCI and IBM to manage and operate the NSFnet backbone and continue its development.

By July 1988, NSFnet had 13 nodes connected to its backbone. Between July 1988 and July 1989, the network averaged 20% growth per month. During this period, many local and regional networks were attached to the network.

At the close of the 1980s, the networks of the Internet were still non-commercial and if not directly subsidized, were indirectly subsidized by their free use of the cross-country NSFnet backbone.

Jamie N. Nafziger, *Time To Pay Up: Internet Service Providers' Universal Service Obligations Under The Telecommunications Act of 1996*, 16 J. MARSHALL J. COMPUTER & INFO. L. 37, 58-9 (1997).

97. HENRY H. PERRITT, JR., LAW AND THE INFORMATION SUPERHIGHWAY 6 (1996) ("A backbone is the central part of a network with the highest capacity. . . . In the Internet, a backbone connects midlevel networks. Typically a backbone's bandwidth is an order of magnitude greater than the bandwidth of the pieces connected through the backbone.").

98. See *id.* at 5. NSFNet officially came to an end in 1995. See *id.*

99. NSF enforced an acceptable use policy (AUP) which limited traffic unrelated to research and education until the late 1980s. See Barry M. Leiner et al., *A Brief History of the Internet* (visited Aug. 4, 1999) <<http://www.isoc.org/internet-history/brief.html#Origins>>. For a comprehensive history of the Internet and the role academia played in its creation see Vinton Cerf, *How the Internet Came to Be* (visited Aug. 3, 1999) <<http://www.internetvalley.com/archives/mirrors/cerf-how-inet.txt>>.

details of social skills and encouraged casual attire. This culture permeated the roots of cyber-society and proceeded to mold a new set of norms.

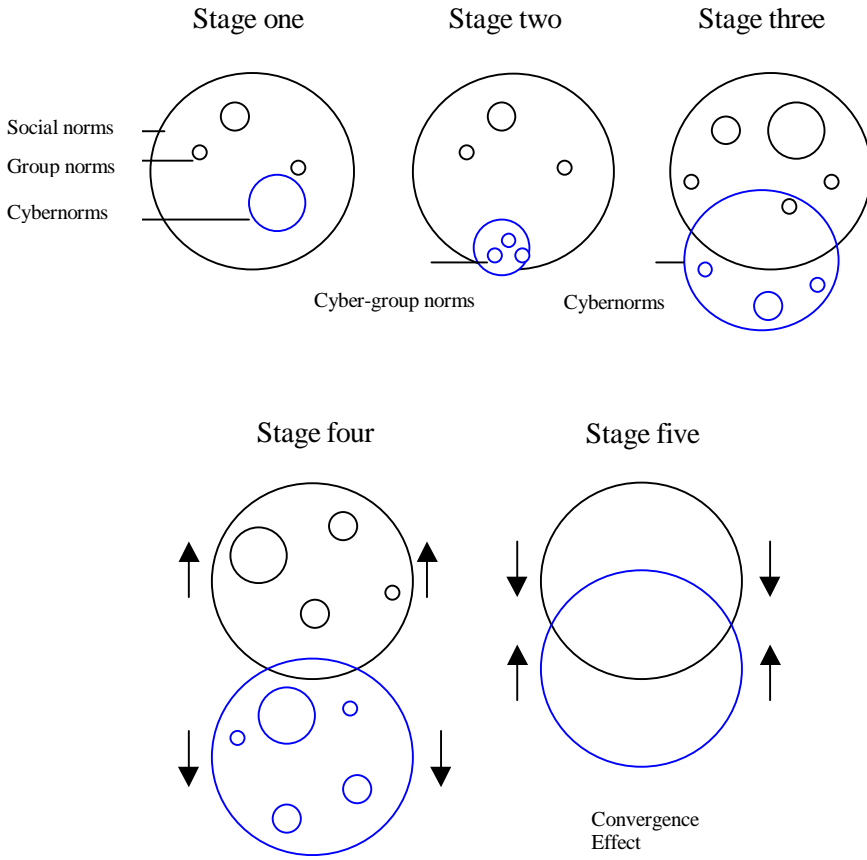
Over the years, Internet use seeped into mainstream culture. This unique medium fostered the development of new groups of users, eventually maturing into what is now a diverse, digital society. The World Wide Web, in particular, launched the Internet's mainstream popularity in the early 90's, because it introduced the graphical user interface to the Internet, thus allowing an ease of use and accessibility that was not previously possible.<sup>100</sup> As more people started using the Internet, new norms emerged within the pre-existing set of cybernorms. Some of these new norms were system-wide, and some were indicative of discrete groups.

Consider social norms as a comprehensive system that encapsulates smaller systems of group norms. A group system of cybernorms originated in this social norm system. Over time, the cybernorm system grew larger, developed group norms within its own system, and eventually reached a level of quasi-independence from the social norm system. If one visualizes these systems as circles, cybernorm development is best illustrated in five stages as seen in Figure 1.

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100. A graphical user interface (GUI) is a graphical, rather than textual, tool for interacting with a computer. Operating Systems, such as Mac and Windows95 use a graphical user interface. GUI elements include the pull down menu, desktop icons, and scroll bars; basically, all point and click interaction with a computer, rather than text based commands, is due to a GUI. See *Whatis?com* (last modified Oct. 18, 1999) *supra* note 34, at <<http://www.whatis.com/gui.htm>>. Prior to the advent of the Web in 1992, users searched for information via text-driven menus that required user knowledge of obscure commands and thus limited Internet use to a select few.

Figure 1



In stage one, the large circle represents the system of social norms. The cybernorm system, as depicted by a smaller circle, at this point existed as one group among many others within society. Cyberspace thus began as a subculture of non-digital society. As discussed before, under the auspices of NSFnet, the Internet was initially a medium used exclusively by academics, mainly scientists.<sup>101</sup> Norms emerged in this community largely as a product of the practices of those using the medium. Thus, at this stage, cybernorms were still very much embedded in the larger system of social norms.

Stage two shows cybernorms moving toward the exterior of the social norm system, becoming less and less enmeshed in it, and advancing toward the earliest stages of quasi-independence. Propelling cyberspace's independence was the overwhelming sense of common ideals that dominated NSFnet. Similar to the early medieval merchant class,<sup>102</sup> early users had literally ventured into uncharted territory and had to rely on their own instincts and experience to develop practices and communication procedures.

Stage three portrays cybernorms developing into an autonomous system, as illustrated by the growing second circle, yet a conspicuous degree of necessary overlap remains between the two systems. Eventually, as the Internet became more popular, the homogeneous group depicted in stage one began to splinter into smaller groups and eventually matured into a heterogeneous society.<sup>103</sup> The smaller circles within the cybernorm system indicate group norms that began to develop within the cybernorm system itself as it evolved.

Stage four shows cybernorms as a quasi-independent system. The systems are never completely detached, as any system of norms can never achieve complete independence from social norms, regardless of the size and influence of the new society.

Finally, stage five depicts the fusion of these two systems, a phenomenon that I call the *convergence effect*, and that serves as the second major theme of this Article. The convergence effect predicts that distinguishing between cybernorms and social norms will eventually become impossible since these

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101. Interestingly, in the early 1980s, natural scientists were almost entirely male, and thus cybernorms evolved out of a strong patriarchal culture. While it is beyond the scope of this article, it is interesting to ponder the effect of such a predominantly male culture on the evolution of cybernorms.

102. For a discussion of the early merchants, see *infra* Part V.

103. Sunstein refers to this effect as “exit and entry” and posits that norms that are contested in a homogeneous society “can lead to the creation of many diverse norm communities.” Sunstein, *supra* note 3, at 919-20. A person who disagrees with prevailing social norms can disassociate herself from the norm community that she finds objectionable and enter into a group that upholds norms aligned with her beliefs. *See id.*



two systems will actually collapse upon each other.<sup>104</sup> Subpart C of this section develops the convergence effect theory by looking at the interdependencies between these two systems separately and then proceeding to look at them together.

Considering cybernorms and social norms as systems reveals that cybernorms in essence grew out of social norms and have experienced varying levels of autonomy during their metamorphosis from a homogeneous group to a heterogeneous society. Throughout this process, social norms undoubtedly affected the substantive development of cybernorms. Thus, the following section investigates the influence that social norms had on cybernorm development.

### *B. How Social Norms Influence Cybernorms*

Many non-digital social norms have greatly influenced the evolution of social behavior in cyberspace. It is important to understand that different types of influences exist. For instance, a cybernorm may have developed as a direct result of a pre-existing social norm, or quite the opposite, a cybernorm may have developed in protest to a pre-existing social norm. Both situations are wholly distinct, yet in both situations a social norm influenced the resultant cybernorm. This section discusses the range of social norms' influence on the evolution of cybernorms, namely, cybernorms that were simply carried over from the social norm system; cybernorms that are modifications of non-digital counterparts; cybernorms that completely abandoned social norms; and the development of new cybernorms, entirely unique to Internet society.

Generally speaking, many cybernorms are borrowed from social norms of communication, as the Internet is largely a communication medium. For example, the social norm of "keeping confidences" still applies to communications that take place in cyberspace. Whether an e-mail message or a telephone call divulges a personal confidence, the recipient of that information is still socially expected to maintain the confidence.

However, because the Internet offers various means of information exchange and dissemination, most of which lack a non-digital equivalent, many social norms are modified in order to apply properly in cyberspace. To illustrate, consider the social norm that requires the simultaneous indication

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104. While it is beyond the scope of this article, it is interesting to consider the intrinsic "forces" causing the systems to pull apart and collapse back upon themselves. Perhaps cybernorms and social norms themselves create these forces, or perhaps there are external factors that also merit consideration.

of a speaker's emotion while discussing a certain subject. This norm exists to guard against misinterpretation and to signal the speaker's intent. If, while making a sarcastic remark, the speaker does not smile to indicate his playful intent, the recipient of the remark might find it confusing and perhaps offensive. E-mail and other cyberspace communications, such as newsgroups and online conference rooms, tend to adhere to a more conversational tone. Because typewritten communication could not properly ascribe emotions such as a smile or playful laugh, typographical symbols called "emoticons" were created to fulfill this need.<sup>105</sup> Without emoticons, a lighthearted e-mail message may appear serious in tone, even if unintended.

Certain social norms are entirely abandoned in cyberspace. Norms abandonment occurs for two reasons. First, users disregard certain social norms in cyberspace simply by virtue of the norm's inapplicability. Second, norms abandonment may occur because, in many ways, Internet users are free of the informal behavioral constraints that they consider overly burdensome or valueless. Initially, cyberspace provided an avenue of escape from social norms.<sup>106</sup> Furthermore, the anonymity afforded by digital communication gives individual users the freedom to ignore or modify existing social norms that they find unsatisfactory.<sup>107</sup> Consider the social

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105. Emoticons are typographical symbols placed at the end of written sentences that represent different emotions. These symbols are sometimes referred to as "smilies" because they emulate facial expressions such as a smile, a wink, or turned down mouth. See *Whatis?.com, Emoticons* (last modified Oct. 14, 1999) *supra* note 34, at <<http://www.whatis.com/emoticon.htm>>.

Before the Internet, casual handwritten letters used "upright" smiley faces to indicate a playful intent, but, after the advent of e-mail, these smiley faces were turned on their side, e.g., :-), and replicated in typed messages. Additionally, e-mail users also have largely expanded the "smiley face" inventory by adding many other emoticons for emotions other than happiness.

106. Essentially in the early stages of development, Cyberspace, just like other groups, provided people with an alternative avenue of expression. See Sunstein, *infra* notes 107 and 108.

107. It is well known that anonymity has two effects, each stemming from the ability to detach personal affiliation from words or acts. Because anonymity allows communication without retribution, one may associate lack of retribution with negative consequences such as dishonesty or corruption. But, anonymity in general, is also a tool designed to enhance communication, ranging from practices embedded deep within our American culture, such as voting via secret ballot, to institutional uses, such as unsigned evaluations or comment sheets. While voting secretly is compelled by legal rules and unsigned comment sheets are a result of social norms, "in both cases identification might chill responses because communicators might fear retaliation or confrontation." Saul Levmore, *The Anonymity Tool*, 144 U. PA. L. REV. 2191, 2193 (1996).

These two disparate functions of anonymity are significant when considering the development of norms in cyberspace. The fact that users can offer more accurate information and honest evaluation has most certainly affected the development of cybernorms. Cybernorms reflect people's opinions and desires more accurately than norms in society. Many social norms counter private desires, but, due to sanctions and the complexity involved in changing norms, the norms persist. In contrast, the layer of anonymity that cyberspace affords allows users to more easily change norms that they dislike and allows the creation of cybernorms that reflect users' private desires. However, the honesty effect of anonymity on cybernorms may itself be affected (but not counterbalanced) by the ease in which others

norm that imposes an obligation of personal constraint over revealing one's honest thoughts about a person or a situation in order not to offend the other person or embarrass oneself. For instance, while at a public lecture, perhaps one finds the speaker simple-minded and arrogant. Social norms dictate that one keep her opinion to herself, at least until the lecture is over. Even confrontation has socially imposed boundaries, depending on the environment. However, due to a certain amount of anonymity that cyberspace affords, flaming has become a popular form of expression for many users.<sup>108</sup> Particularly with mailing lists, newsgroups, and chatrooms, users often tend to let others know what they are thinking, much more so than if they were sitting in the same room with the other participants. The element of non-confrontational discussion (meaning that the participants are not face-to-face) coupled with the asynchronistic communication style of these services, allows users a layer of anonymity not found in the non-digital world and leads to more honest and less civil interactions.

While cyberspace gave users a unique freedom from certain social norms, a number of completely original norms developed in cyberspace, as some aspects of the Internet lack a non-digital counterpart. These unique cybernorms similarly imposed constraints on user behavior. For example, when a personal written letter is sent, it does not include a subject line on the envelope, or the letter for that matter, regarding the contents of that letter, assuming it is not a professional memo. With e-mail, however, users expect a descriptive subject line to accompany the message. A subject enables the recipient to decide whether to open the e-mail immediately or tend to other

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may be dishonest or corrupt.

Because "[p]eople's private judgments and desires diverge greatly from public appearances" perhaps the social norms that emerged in cyberspace were slightly purer. Sunstein, *supra* note 3, at 912. This statement may appear initially to contradict the very significance of a norm, which serves to impose informal constraints on human behavior. But, purity in this context merely reflects the ability that early Internet users had to adopt their own ideals of normative behavior. Such an ability is nothing new, because like any group, early net users simply adhered to their own set of standards. Sunstein discusses how social norms can, at times, differ significantly from personal opinions and private desires. *See id.* at 916.

There are countless examples of people's public actions and/or statements diverging from their private judgments on a certain topic. I submit that many of the norms that developed in cyberspace were more reflective of users' private judgments, due to a lesser risk of detection afforded by the subculture atmosphere and anonymity. For full discussion on anonymity, see *infra* Part IV.C.1.

108. A "flame" is a heated, often illogical, reaction to an e-mail message or Usenet posting, as opposed to a well-reasoned and dignified response. Flaming is regarded as poor netiquette and tends to identify those users who are not as bright as they deem themselves to be. *See Whatis?com, Flaming* (last modified Oct. 15, 1999) *supra* note 34, at <<http://www.whatis.com/flaming.htm>>. Internet users call two or more people exchanging flames, a "flame war." Some newsgroups are completely overridden by such adolescent behavior.

more pressing business.<sup>109</sup> While some cybernorms are completely original to the Internet, users did not create these new cybernorms independent of any pre-existing set of social standards; surely social standards influenced even the creation of new cybernorms.

The dynamics involved in the evolution of cybernorms are complex. Social norms do not simply affect cybernorms in a shallow sense; rather, cybernorms depend heavily on social norms, although this dependence was and is not linear. Furthermore, as the next section investigates, social norms themselves also depend on cybernorms.

### *C. A Model of the Dependencies between Social Norms and Cybernorms; The Convergence Effect*

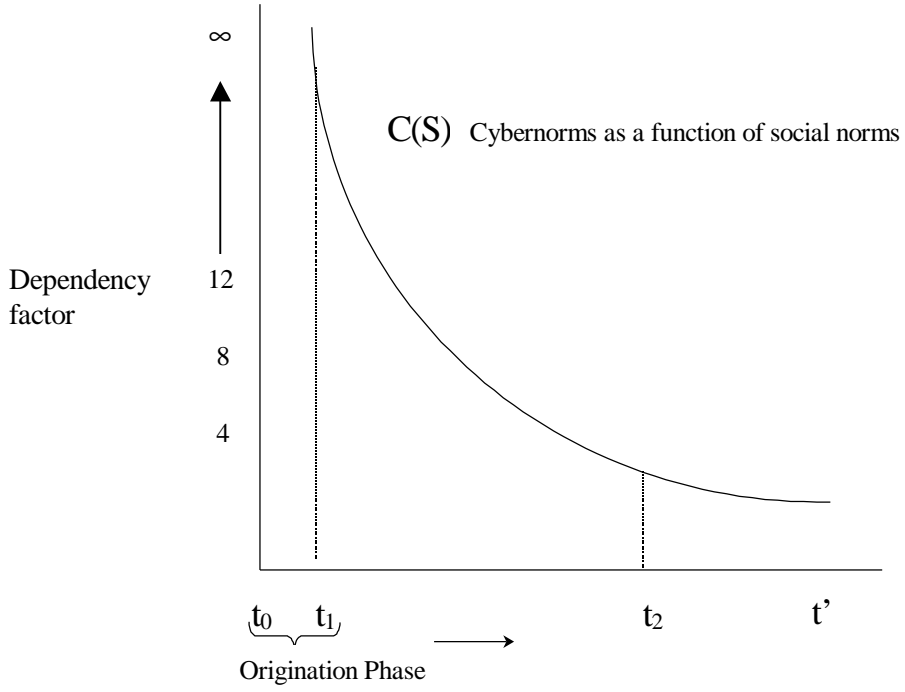
Cyberspace does not exist in a vacuum. As discussed above, social norms have heavily influenced the evolution of cybernorms. Cybernorms, therefore, have been and remain dependent on social norms. Over time, social norms have also become somewhat dependent on cybernorms. The anticipated result of this interdependence is the convergence effect, the ultimate fusion of these two systems upon one another and the second central theme of this Article.

Cybernorms were, and continue to be, dependent on social norms, although the level of dependency varies over time. This relationship, or more accurately, cybernorms as a function of social norms,  $C(S)$ , derived from the previous discussion of norm evolution, is depicted over time in Figure 2. The y-axis of Figure 2, which is labeled "dependency factor," increases as one moves upward along the y-axis. The x-axis of Figure 2 is representative of time, which increases as one moves to the right along the x-axis.

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109. This cybernorm probably developed because people tend to receive a great volume of e-mail due to the ease of information flow and the fact that e-mail "envelopes," including the subject line are not generally accessible to other eyes. See Hambridge, *supra* note 59, at <<http://www.dtcc.edu/cs/rfc1855.html>> (explaining that mail should have a subject heading that reflects the content of the message). The spread of the Melissa virus (which contained the subject line "An Important Message From <sender>") illustrates how a subject line can encourage a recipient to open a particular e-mail. See, e.g., Peter H. Lewis, *Melissa and Her Cousins*, N.Y. TIMES, Apr. 1, 1999, at G1 (attributing the success of the Melissa virus to the subject line containing the name of someone the recipient knows and trusts).

Figure 2



Initially, during the “origination phase” of cybernorm evolution, roughly depicted by the time period  $t_1 - t_0$ , cybernorms (C) were highly dependent on social norms (S). In fact, as explained in the model of cybernorm evolution in Figure 1, during stage one, Internet users actually formed a group or subset of society. However, over time, cyberspace began to evolve into a society of its own. As Figure 2 indicates, as time approaches  $t'$ , the dependency factor of C(S) decreases in a nonlinear fashion.<sup>110</sup> Thus, cybernorm dependency on social norms diminishes over time, representing the Internet’s gradual extrication from society.<sup>111</sup>

While cybernorms’ dependence on social norms decreases over time, the dependency factor of C(S) will never progress to 0 because C is always somewhat dependent on S.<sup>112</sup> Cybernorms developed out of our social norm system, and while cybernorms have matured to reach a point of semi-independence, they remain part of our social norm system.<sup>113</sup>

However, the Internet itself has more recently begun to reshape traditional social norms, social roles, and social meanings.<sup>114</sup> Figure 3 represents how social norms themselves depend on cybernorms, or more accurately, social norms as a function of cybernorms, S(C).

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110. The numerical dependency factors seen along the y-axis are merely an aid to locate oneself along the y-axis and in no way attempt to quantify the amount of dependence.

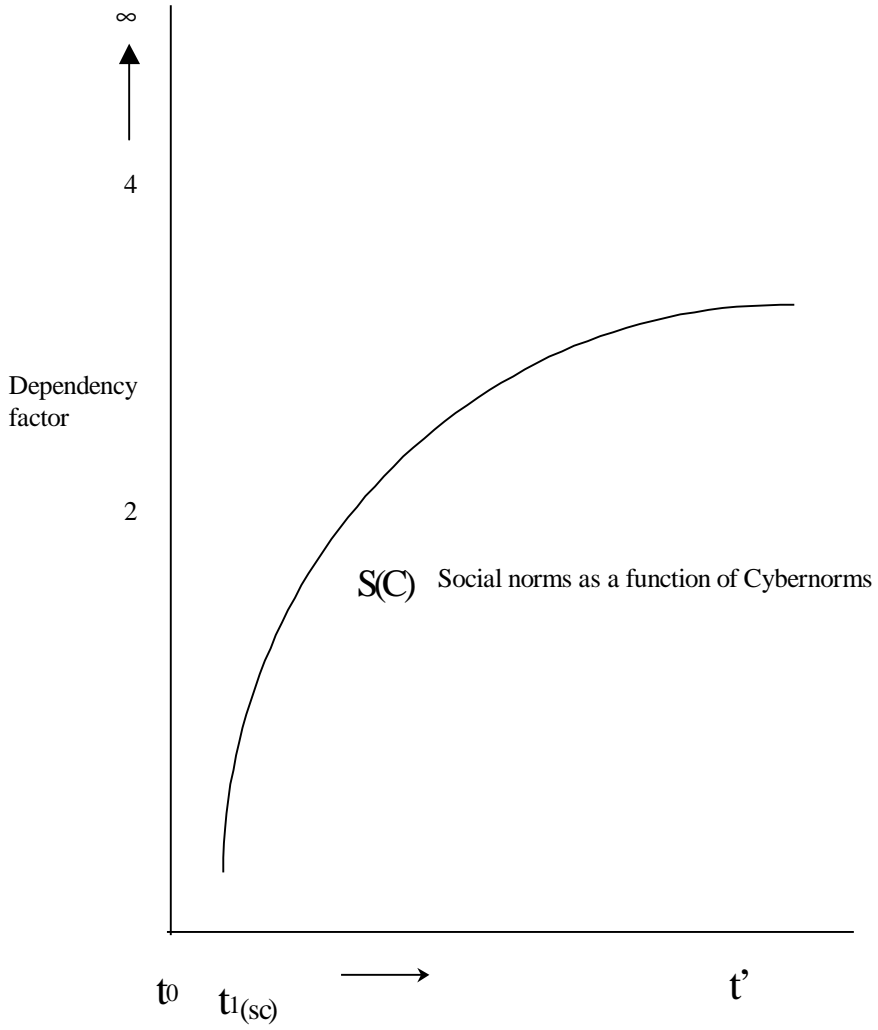
111. Other communities, such as the Hare Krishnas and the Amish, have also extricated themselves from society. While the level of autonomy and heterogeneity of these societies is conceivably comparable to cyberspace, their evolution differs in that it lacks the elements of anonymity and pervasive information flow. See discussion *infra*. Furthermore, while these societies have become quasi-autonomous, they have remained that way and have not entered into mainstream culture or exerted any level of influence upon society itself. Thus, a convergence effect, between for instance, the Amish and society, has not occurred, nor is it likely to occur.

112. In fact, as Figure 4 depicts, C(S) is limited by the social norm system, indicative of a logarithmic function.

113. Cybernorm evolution is currently in a “developmental phase,” which is roughly depicted on the graph as the time period between  $t'$  and  $t_1$ , because cybernorms are still sufficiently dependent on social norms, but social norms have begun to show a growing dependence on cybernorms.

114. Within every society, actions, inactions, and statuses have social meaning. Social meaning, “the semiotic content attached to various actions, or inactions, or statuses,” varies according to context. For example, in the United States wearing a seat belt indicates that you are a conscientious person who takes reasonable measures to protect your health and safety while in a car. However, until approximately two years ago, in Budapest if you insisted on fastening your seat belt while sitting in the front seat of a taxicab, your action would insult the driver. See Lessig, *supra* note 24, at 951-52.

Figure 3



Initially at  $t=t_{1(sc)}$ , social norms have no dependence on cybernorms. During the early stages of group cybernorm development within the social norm system (stages one and two of Figure 1), cybernorms had a negligible affect on social norms. Only when cybernorms began to develop into a system of their own (stages three, four, and five of Figure 1), did social norms begin to feel an impact. Thus, as  $t$  approaches  $t'$ , the dependency factor of  $S(C)$  increases.

In short, due to the Internet's profound impact on society, social norms have now become dependent on cybernorms to a certain degree. For example, the use of emoticons,<sup>115</sup> primarily in e-mail messages, came to represent emotions that users could not express due to the lack of face-to-face interaction over the Internet.<sup>116</sup> Interestingly enough, people have started using emoticons wholly outside the context of the Internet, in hand written letters and typed memos.<sup>117</sup> Also consider the practice of exchanging e-mail addresses. In the past, this normative practice was limited entirely to Internet communications. Now, business professionals, academics, government officials, and others regularly exchange e-mail addresses in professional and social contexts, and most business cards have come to include this now important contact information.

It is important to recognize in Figure 3 that the time axis is shifted forward in time compared to the time axis in Figure 2 because social norms did not become a function of cybernorms until well after the establishment of cybernorms. Figure 4 illustrates this time shift by presenting the two functions,  $C(S)$  and  $S(C)$ , on the same graph. Recall in Figure 2 that  $C(S)$  started approximately at  $t_1$  and in Figure 3,  $S(C)$  began at  $t_{1(sc)}$ . Figure 4 clearly indicates that  $t_{1(sc)}$  is at a later point in time along the x-axis than  $t_1$ .

Also note the difference between the y-axes in Figures 2 and 3 as indicated by the numerical dependency factors. This difference is shown in Figure 4, which illustrates that while social norms have begun to demonstrate a dependency on cybernorms, social norms' dependence on cybernorms never exceeds cybernorms' dependence on social norms. In other words, throughout their evolution, cybernorms have had a greater dependency on social norms than social norms have had on cybernorms.

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115. For a definition of emoticons see *supra* note 105.

116. See Rinaldi, *supra* note 66, at <<http://www.fau.edu/netiquette/net/elec.html>> (warning users to be wary of using sarcasm and humor because, without face to face communication, such remarks can be construed as serious criticism and advising users to use emoticons to express humor).

117. See Anne M. Peterson, *Net-Speak Has Many Linguists Talking*, SAN DIEGO UNION-TRIB., Jan. 5, 1999, at 8 (noting that while smiley faces have been around for a long time, the Internet turned them on their side, and now more and more people use them in letters and notes that way).



FIGURE 4

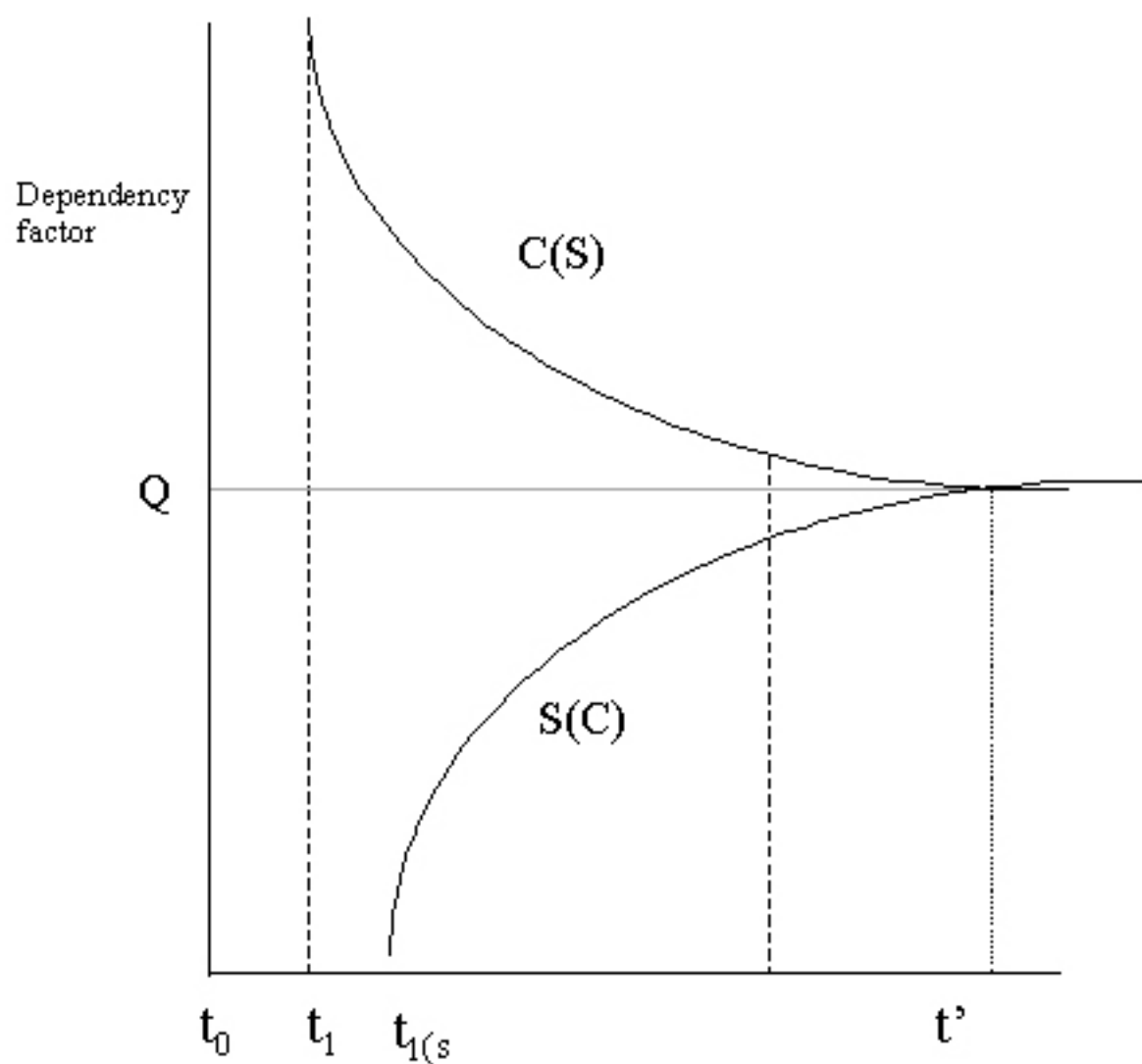


Figure 4 shows both functions,  $C(S)$  and  $S(C)$ , limited by each other as they reach  $t = t'$  on the x-axis and  $Q = Q_0$ , a point of equilibrium, on the y-axis.<sup>118</sup> As depicted in Figure 1, cybernorms are in the very early stages of converging with the very norms from which they evolved, and hence the convergence effect. At time  $t=t'$ , the two systems will literally merge into a single system.<sup>119</sup>

The previous models illustrate the dependencies social norms and cybernorms have, and will continue to have, on each other.<sup>120</sup> Well-established social norms affected the evolution of cybernorms and continue to have an impact on cybernorms' development. Moreover, cybernorms have begun affecting social norms, and social norms are starting to have a weak but undeniable dependence on cybernorms. This relationship will gain strength as the Internet becomes a more integral part of society, eventually reaching a point where these two systems of norms become indistinguishable. Understanding and appreciating these interdependencies is critical to the future governance of cyberspace.

#### IV. NORM ORIGIN THEORY APPLIED TO CYBERNORMS

How do norms arise and develop in cyberspace? To answer this question, one must first ground cybernorm theory in traditional norm origin concepts and then consider the similarities and, more importantly, the differences that occur when norms develop in cyberspace. This section, which provides the third premise of this Article, explains the puzzle of norm origin, applies norm origin theory to cyberspace, and investigates two qualities of digital society that create the need for novel theories of cybernorm origin—anonymity and pervasive information flow.

##### A. *The Quandary of Norm Origin*

Theorists can comfortably describe human behavior within the confines of pre-existing norms and explain why these norms remain, although they have grappled with the enigma of norm origin for some time.<sup>121</sup> Individuals

118. Recalling Figures 2 and 3,  $Q$  represents roughly a dependency factor of four. The numerical labeling of the y-axis indicates nothing more than relative position along the y-axis.

119. I sense that  $t=t'$  will occur sometime over the next fifteen to thirty years. However, intuition alone serves as the basis for this statement.

120. It is important to remember that these models serve only as a tool for visualizing a trend; they in no way attempt to plot actual empirical data. The curves are solely for the purpose of illustration and may, in reality, grow and decay in a different fashion than shown.

121. See McAdams, *supra* note 3, at 352. (explaining that because norm origin is somewhat of a puzzle for economists, they frequently brush over it).

enforce social norms by punishing nonconformist behavior.<sup>122</sup> The norm continues as long as the cost of the punishment exceeds the benefits of violation of the norm; in other words, the cost of violation must exceed the cost of compliance.<sup>123</sup> Imposition of sanctions will continue with pre-existing norms, because punishment of norm violators is, in itself, expected behavior, and consequently a norm.<sup>124</sup> These norms are known as “secondary norms.”<sup>125</sup> However, sanctioning is “costly,” particularly with regard to non-established norms, because the sanctioner must act alone and risk ridicule or embarrassment if others do not agree with her opinion, or the sanctioner must confront the violator.<sup>126</sup> Either way, the new sanctioner takes a risk and incurs a cost. The difficulty lies in explaining what motivates sanctioning behavior in the absence of an existing norm. Several theorists have postulated that individuals sanction violators to benefit the group.<sup>127</sup> However, this theory collapses under the second-order collective action problem.<sup>128</sup> Even if the activity benefits the group, an individual has little incentive to act if she can benefit from the acts of others without having to bear sanctioning costs herself.<sup>129</sup> Conversely, an individual has little incentive to act alone if others will not share the costs of enforcing the norms.<sup>130</sup> Only in the unusual situation where the individual’s act will “make or break” the norm, will she benefit.<sup>131</sup> Thus, if sanctioning is costly, particularly when one is not enforcing a pre-existing norm (a secondary norm), what incentives exist to cause the sanctioning behavior necessary for the origin of a norm? Herein lies the quandary of social norm origin.

### *B. McAdams’ Esteem Theory and its Application to Cyb norms*

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122. *See id.*

123. *See id.*

124. *See id.*

125. *Id.* at 352 n.67.

126. *See id.* at 352 (explaining that the puzzle is to explain why, in light of the costs most economists associate with sanctioning behavior, individuals would ever begin to sanction); *see also* Posner, *supra* note 3, at 1732 (asserting that group members are in a better position than the state to enforce norms because of their authority and knowledge as members of the group); Amy L. Wax, *Against Nature—On Robert Wright’s The Moral Animal*, 63 U. Chi. L. Rev. 307, 338 (1996) (arguing that group members must be willing to sanction both those who engage in deviant behavior, even if they are not personally injured by it, as well as those who facilitate or condone such behavior).

127. *See* McAdams, *supra* note 3, at 352.

128. *See id.* Recall that the second order collective action problem recognizes the enforcement issues surrounding collective action problems rather than the collective act itself. *See supra* Part II.A.1. Regarding collective action generally, *see* HARDIN, *supra* note 32; OLSON *supra* note 32.

129. *See* McAdams, *supra* note 3, at 352.

130. *See id.*

131. *Id.* at 352-353; *see also* JON ELSTER, *THE CEMENT OF SOCIETY* 44 (1989).

McAdams responds to this intellectual quandary with his “esteem theory” of norm origin. While McAdams provides only one of several well-regarded theories of norm origin, I chose to work with his theory because esteem theory is visibly representative of other previously respected theories.<sup>132</sup> McAdams brilliantly presents esteem theory and effectively incorporates other highly regarded theories to offer the most recent and comprehensive theory in this difficult field to date. However, when one applies esteem theory to cyberspace, it becomes apparent that the unique qualities of digital technology require supplementary theories to explain the origin of cybernorms.

McAdams maintains that under the right conditions, the desire for esteem produces a norm; hence, esteem-based norms arise because people seek the good opinion or respect of others.<sup>133</sup> The norm origin enigma no longer presents a problem when considering esteem-based norms, given the manner of sanctioning. McAdams explains that esteem sanctioning, which involves withholding esteem to express disapproval or granting esteem to indicate approval, is of minimal cost.<sup>134</sup> Because the cost of granting or withholding esteem is negligible, esteem sanctions are less likely to be subject to the second order collective action problem.<sup>135</sup> He supplements his thesis with three conditions, which are necessary for esteem-based norms to arise.<sup>136</sup> First, a consensus must exist regarding the positive or negative esteem worthiness of engaging in behavior *X*; second, individuals must face some risk that others will detect whether they engage in *X*; and third, the existence of this consensus and risk of detection must be well-known within the relevant population.<sup>137</sup>

Application to cyberspace challenges the esteem theory of norm origin,

132. See Robert Cooter, *Law and Unified Social Theory*, 22 J. L. & SOC'Y 50 (1995) [hereinafter *Unified Social Theory*]; Robert D. Cooter, *Structural Adjudication and the New Law Merchant: A Model of Decentralized Law*, 14 INT'L. REV. L. & ECON. 215 (1994) [hereinafter *Structural Adjudication*]; Cooter, *supra* note 7. See also GARY S. BECKER, ACCOUNTING FOR TASTES 225-30 (1996) (presenting an internalization theory); Axelrod, *supra* note 3 (presenting an evolutionary theory which considers the birth and decay of norms); Jody S. Kraus, *Legal Design and the Evolution of Commercial Norms*, 26 J. LEGAL STUD. 377 (1997) (presenting an evolutionary theory); Eric A. Posner, *Symbols, Signals, and Social Norms in Politics and the Law*, 27 J. LEGAL STUD. 765 (1998) (presenting a signaling model of norms); see generally, Eric Posner, *Efficient Norms*, in 1 PALGRAVE DICTIONARY, *supra* note 6 (reviewing existing economic theories of origin).

133. McAdams, *supra* note 3, at 355, 357 (noting that a key quality of esteem is that people care about how they are judged in comparison to others).

134. See generally *id.* at 365-76.

135. *Id.* at 365 (explaining that because the cost of granting or withholding esteem is often minimal or zero, esteem sanctions are not subject to the second-order collective action problem that makes norm origin a difficult concept for theorists to explain).

136. *Id.*

137. *Id.* at 358.

pointing out the uniqueness of the social system brought about by technology. The significantly heightened degree of anonymity and pervasive information flow found in cyberspace require consideration, and consequently affect each of the three conditions necessary for esteem-based norms to arise.

First, McAdams requires consensus. This concept requires the assumption that individuals possess some evaluative ability and opinions prior to the existence of a norm.<sup>138</sup> Or perhaps new opinions are partially based on borrowed norms from analogous situations. Regardless of whether these opinions are original or borrowed, esteem theory requires only that individuals direct these opinions at the behavior of others and that additional individuals share the same opinion.<sup>139</sup>

This first condition, that there must be a consensus regarding the positive or negative esteem worthiness of engaging in behavior *X*, is a function of the ability to disseminate and exchange information.<sup>140</sup> I propose that consensus transpires at an accelerated rate in cyberspace due to the increased speed at which information travels. Additionally, by virtue of the ease in which data travels on the Internet, a consensus is likely to emerge among a far greater population.

Next, McAdams requires an inherent risk. In other words, anyone who engages in the behavior at issue must risk detection due to the very nature of the act.<sup>141</sup> McAdams stresses the *inherent* nature of the risk, because it is important (in solving the norm origin enigma) that the detection does not require individuals to bear a cost in creating the risk of discovery.<sup>142</sup> Instead, information regarding the violation of a norm becomes available as an incidental result of some unrelated activity.<sup>143</sup> For example, while walking to your car, you may witness a pedestrian littering. Because littering is necessarily done in a public space, the pedestrian risks inherent detection. Likewise, a worker who crosses the picket line to continue working while her co-workers are striking necessarily risks detection by the other workers.

This second condition, risk of detection, is reduced in cyberspace because users have a greater ability to remain anonymous.<sup>144</sup> As I discuss later in this

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138. *Id.* at 358.

139. *Id.* "Additional individuals" does not necessarily imply a majority. *Id.*

140. *Id.* at 360 (stating that group discussion may produce and publicize a consensus).

141. *Id.* at 361.

142. *Id.*

143. *Id.*

144. There may be something to be said for hackers' or crackers' invasion of user privacy; however, such practices are sufficiently distinct from the ability to remain anonymous in virtual communications.

Article, cyberspace offers users the unparalleled ability to hide their true identity. For instance, not only do users not know each other's gender or nationality, but a user may adopt an alias to reduce (or avoid entirely) the risk of detection. Furthermore, anonymity is generally more acceptable within the context of human intercommunication in cyberspace and does not carry the same stigma as it does in society.<sup>145</sup> An Internet user's reaction to anonymity in cyberspace is generally different from society's common understanding of anonymity. Admittedly, certain societal uses of anonymity, such as secret ballot voting or customer complaint forms, are accepted practices and are understood and used to enhance communication. But, as a general statement, society looks negatively upon those who choose to conceal their identity.<sup>146</sup> As discussed in the next section, not only is anonymity more acceptable in cyberspace than in face-to-face, telephone, or written communication, it also does not imply the same social meaning in cyberspace.

Finally, McAdams asserts that the first two conditions, consensus and risk of detection, must be well known within the relevant community.<sup>147</sup> If a violator is unaware of a consensus or oblivious to the risk of detection, then she can violate the consensus without knowingly risking punishment for her conduct.<sup>148</sup> And, if most of the community is unaware of the consensus and risk, then consensus cannot produce a norm.<sup>149</sup>

In cyberspace, knowledge of consensus and risk of detection is accelerated and made available to a broader community because of the pervasive nature of data flow on the Internet. Information in cyberspace travels at unmatched speeds and greater distances than ever before.

When one applies esteem theory to cybernorms, anonymity and pervasive information flow significantly alter each of McAdams' three conditions.<sup>150</sup>

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145. A significant factor in the acceptance of anonymity on the Internet is the nature of the medium itself. The architecture of the Internet easily shields the identity of the individual, and users have exploited this feature. By signing onto the Internet, a user implicitly consents to the possibility that other users will remain anonymous. Users are therefore much more tolerant of anonymity on the Internet than with other communication mediums. *See generally*, Levmore, *supra* note 107, at 2195-96 (discussing how consent to anonymity can be implicit in given situations, such as when one receives a Valentine's Day card or applause from a crowd).

146. For example, imagine a person communicating face-to-face with another, while wearing a mask to conceal her identity. Most certainly, the recipient of the anonymous communication would make negative assumptions about the masked person. Similarly, if an individual were disguising their voice over the telephone or their handwriting in a letter, a certain stigma would attach to that act.

147. McAdams, *supra* note 3, at 362.

148. *Id.*

149. *Id.*

150. However, it is important to remember that even with the liberal use of anonymity in cyberspace, esteem still plays an equally important role in norm formation. In other words, an alias, or digital persona, still desires esteem. If Jane Doe publishes a Web page or posts to a newsgroup as blackhat and another user reacts by criticizing her statements, Jane's self-esteem will still be affected.

Information flow accelerates two of McAdams' conditions, and anonymity hinders the other.<sup>151</sup> Cyberspace thus requires new theories explaining cybernorm origin, because traditional norm origin theory understandably disregards high levels of anonymity and pervasive information flow, qualities found only in a digital society. The next section continues by focusing on these exceptional features and the level to which they distinguish digital society from traditional society.

### *C. Two Unique Characteristics of Cyberspace: Anonymity and Information Flow*

The two particular features of cyberspace introduced in the previous section, anonymity and information flow, have significantly contributed to the manner in which normative behavior on the Internet has originated and developed, as well as the actual substance of cybernorms. As demonstrated above, these qualities of digital society have created a need for further study in the area of cybernorm origin. This section necessarily supplements the third premise of this Article by exploring exactly how anonymity and information flow levels are elevated in a digital society.

#### *1. Anonymity*

The concept of anonymity is vital to cybernorm origin and development.<sup>152</sup> The ability to conceal one's true identity on the Internet is an inherent characteristic of the technology.<sup>153</sup> For instance, many users have e-

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Perhaps an element of social embarrassment is lost by the ability to conceal her non-digital identity, however, esteem is still withheld by others in much the same way as in society. Thus, while anonymity in cyberspace, in essence, allows users to disassociate themselves from their non-digital identity, it does not negate the effects of esteem.

151. I have yet to investigate the combined effect that these altered conditions actually have on the origin and development of cybernorms, but I am confident that the effect is significant.

152. Anonymity lessens the inhibitions that people might experience when talking in person. This social change unique to the Web has positive and negative effects. On the one hand, anonymity can promote honesty and break down authority relationships. On the other hand, depersonalization and rudeness are common human reactions to anonymity as well. To avoid the negative effects, persons experienced with the Internet pay particular attention to being polite. Additionally, people who may feel awkward socially often express themselves quite well on the Internet due to the absence of any personal interaction. See HACKER'S DICTIONARY, *supra* note 91.

153. Anonymity seems to be slowly diminishing however, particularly because commercial entities, which are driving the growth of the Internet, thrive on user information. Businesses require customers to fill out Web forms to collect consumer information, and cookies are also used to gather information that users would normally not divulge.

Additionally, scandals behind the newest Pentium chip and Microsoft Word's embedded code, combined with events such as the *McVeigh v. Cohen* disaster involving AOL and the United States Navy, have created a gradual suspicion regarding the amount of privacy that was once found in

mail aliases<sup>154</sup> that do not reflect their real name, which, combined with the use of a generic Internet Service Provider (ISP)<sup>155</sup> such as America OnLine (AOL), avoids disclosure of identifying information through their e-mail address.<sup>156</sup> Of course, affiliation with a business or university with an indicatory domain name<sup>157</sup> such as *ibm.com*, reduces the value of an alias. Determining the source of e-mail from *blackhat@aol.com* would prove terribly difficult<sup>158</sup> in contrast to *blackhat@ibm.com*, for the latter limits the number of possible sources to all users on the IBM computer system.<sup>159</sup>

To purposely avoid using their real name, users often employ aliases in lieu of signing an e-mail message or newsgroup posting. Most chatrooms, mailing lists, newsgroups, and similar fora, do not have rules barring this behavior.<sup>160</sup> Similarly, Web publishers are not required in any way to

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technology. 983 F. Supp. 215 (D.C. Cir. 1998). For links to copies of the complaint and decision in *McVeigh*, see *America Online & Privacy* (visited Feb. 24, 1998) <[www.epic.org/privacy/internet/aol/](http://www.epic.org/privacy/internet/aol/)>.

154. The online world uses the term "alias" in two senses. First, an alias can be "a nickname or stand-in name for a username, file, address, or other resource." *Internet Glossary* (visited Apr. 9, 1999) <<http://www.lucid-inc.com/netcoach/Glossary/GlossTermAlias.html>>. Users employ aliases to conceal their true non-digital identity in chatrooms, newsgroups, and e-mail. Secondly, the term alias is used by the Unix and Macintosh operating systems as an auxiliary name for a file, user, or group of users. *See id.* This Article refers to the first definition.

155. An Internet Service Provider (ISP) sells access to the Internet, as well as other online services. ISP firms can serve the residential market, the corporate market, or both. Smaller ISP firms generally do business by buying a fixed amount of space from a larger firm and limiting their services to the number of people who can dial into their line. *See id.* at <<http://www.lucid-inc.com/netcoach/Glossary/GlossTermIsp.html>>.

156. Identifying information can certainly be added to an e-mail message if one chooses. However, one should note that a recent technology called Global Unique Identifiers (GUID) embedded in Microsoft software and serial numbers and used with Pentium III computers has made it much harder to conceal one's identity. For example, AOL traced GUID to link the Melissa virus to its alleged creator. *See Rob Lemos, How GUID Tracking Technology Works* (last modified Mar. 30, 1999) <<http://www.zdnet.com/zdnn/storces/news/o.4586,2234550,00.html>>; Joel Deane, *Melissa Manhunt Creates Precedent* (last modified Apr. 6, 1999) <<http://www.zdnet.com/zdnn/stories/news/0,4586,2237838,00.html>> (mentioning the role of GUID in tracking down the man accused of creating the Melissa virus).

157. A domain name is an Internet identifier that systems can translate into a numerical network address. An example of a domain name is "IBM.com." *Internet Glossary, supra* note 149, at <<http://www.lucid-inc.com/netcoach/Glossary/GlossTermDomainName.html>>.

158. Assuming that the user attempting to determine the identity of *blackhat@aol.com* does not have access to a database that correlates online usernames with account registration.

159. Of course, Internet users may choose identifying information, rather than an alias, such as *janedoe@aol.com* as their username. However, those using a university or business account typically do not have the option of an alias, but instead are assigned a derivative of their first and last name. There are also laws in place granting courts the right to compel identification of Internet users. *See* 1998 Digital Millennium Copyright Act § 202(a), 17 U.S.C. § 512(h)(i) (granting copyright owners the right to request that a court subpoena a service provider to compel identification of an alleged infringer).

160. *See generally, Anonymity on the Internet* (last modified June 28, 1999) <<http://www.dis.org/erehwon/anonymity.html>>. Users commonly conceal their gender through aliases



disclose their identities.<sup>161</sup> Consider the barriers to anonymity in traditional publishing, such as rules and customs affecting publishers and commercial vendors of paper publications,<sup>162</sup> the Federal Communications Commission identification regulations that permeate the broadcast industry,<sup>163</sup> and the regulatory restraints imposed by the Federal Trade Commission upon telephone solicitation and harassment prohibiting anonymity.<sup>164</sup> The Internet gives a much different meaning to anonymity, as compared to these legal and non-legal constraints regarding identity disclosure.

However, one should not neglect the fact that the Internet is a unique, multi-faceted communication medium. For instance, e-mail is comparable to the telephone, in that it enables one-to-one communication with high personal interaction; Web pages are analogous to broadcast, in that the Web allows one-to-many communication, with low personal interaction. Between these two extremes are communication tools, such as mailing lists, chatrooms, newsgroups, and Intranets.<sup>165</sup> While users construe anonymity slightly differently in each of these digital environments, overall, users tolerate anonymity to a much higher degree than in non-digital society.<sup>166</sup>

Generally speaking, clandestine tactics in cyberspace do not carry the same connotations as in non-digital society. For instance, an alias used on a Web page will not bear a synonymous meaning to a pseudonym used on a

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and even pretend to be of the opposite sex.

161. Web page publishers have no duty to disclose identifying information barring any unlawful activity such as fraudulent misrepresentation.

162. See Levmore, *supra* note 107, at 2206 & n.21 (stating that because the publisher's role is one of vouching for the intentions of an anonymous author, convention dictates that the publisher not be anonymous and the government even requires it when it has an excuse to regulate).

163. See, e.g., FCC Station Identification, 47 C.F.R. §73.1201(a) (1997). ("Broadcast station identification announcements shall be made: (1) At the beginning and ending of each time of operation, and (2) hourly, as close to the hour as feasible, at a natural break in program offerings. Television broadcast stations may make these announcements visually or aurally.").

164. See, e.g., FTC Abusive Telemarketing Acts or Practices, 16 C.F.R. §310.4(d) (1998) ("It is an abusive telemarketing act or practice and a violation of this Rule for a telemarketer in an outbound telephone call to fail to disclose promptly and in a clear and conspicuous manner to the person receiving the call, the following information: 1) The identity of the seller; 2) That the purpose of the call is to sell good or services; 3) The nature of the goods or services . . .").

165. An Intranet is a discrete network that often links to the Internet via gateway computers. Enterprises use Intranets to facilitate internal communication and information flow among their workers. A connection to the public Internet is often through a firewall server, which maintains the security of the information within the Intranet by screening messages that go in and out of the system. See *Whatis.com* (last modified Oct. 25, 1999) *supra* note 34, at <<http://www.whatis.com/intranet.htm>>.

166. The larger the audience and the lower the interaction, the less Internet users are concerned with the true identity of a publisher. Alternatively, the smaller the system of operation and the higher the interaction level, the more users prefer or expect identity disclosure. Thus, readers of a Web page created under an alias will be less concerned with anonymity than if they received an anonymous, personal e-mail message.

piece of written work, even assuming that the content is identical.<sup>167</sup> Society recognizes that pseudonyms are often used to diffuse readers' preconceptions or to avoid identification by an author's friends or family.<sup>168</sup> Web publishers may use similar tactics. However, Web page authors typically sign an alias because it is an accepted, possibly even expected, behavior on the Internet.<sup>169</sup> Many Web pages offer an e-mail address as the only source of identity for comments, directing responses to "webmaster@companyname.com" rather than the actual e-mail address or identity of the author. Moreover, Internet users generally judge a Web page based on its content rather than if the author is Jane Doe or blackhat.<sup>170</sup>

Consider e-mail as another example. Assume blackhat, unknown to each recipient, sends both an e-mail and U.S. Postal Service mail. Depending on the appearance of the postal service mail, the recipient may throw it away unopened if she thinks it is a commercial solicitation. However, if it resembles a personal letter, she will probably open it due to curiosity, but with a sense of skepticism tainting her opinion of the letter's contents. When the email recipient receives email from blackhat@aol.com, she will most likely read it before forming a judgement.<sup>171</sup> Several reasons account for this disparity.

First, the Internet, as a culture, maintains a much more casual quality than its societal counterparts, which leads to greater tolerance of users choosing sarcastic or playful aliases. Such an attitude is due largely to the group norms from which the Internet emerged,<sup>172</sup> as well as the medium itself. As discussed earlier, during the Internet's infancy in the 1980's, the primary users were technically savvy, natural scientists and computer engineers. As a community, these individuals tend to reject professional norms, such as

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167. See discussion *supra* Part II.B.

168. See Levmore, *supra* note 107, at 2206 (explaining that pseudonyms are not simply indicative of a desire for general anonymity, but are often used to shield one's identity from family members and employers and to mislead the public into believing something about the author that is not true).

169. See generally Whatis?Com, *Webmaster* (last modified Nov. 23, 1999) *supra* note 34, at <<http://www.whatis.com/webmaste.htm>> (explaining that common protocol for Websites is to provide contact information that allows users to address e-mail messages to a "webmaster" or "webmasters," understanding that if addressed to a small company, the term could refer to an individual, or, if addressed to a large corporation, to a team of people who manage the site).

170. This of course disregards professional use, where identification of the source is important. Such an attitude exists because of non-digital professional standards and duties carried over into cyberspace.

171. However, the recipient may be wary and form a pre-judgment, if the alias is ominous or connotes some other meaning. For instance, if the alias were "grimreaper" then the e-mail recipient may be suspicious even before opening the e-mail. This statement also assumes that blackhat is not the name of a well-known spammer.

172. See *supra* Part III.B.

wearing suits or formal conversations, opting instead for more casual attire and communication. Additionally, these early users chose to make use of the technology's capacity for anonymity.

Second, when the Internet exploded into mainstream culture in the 1990's, only a handful of public ISPs, such as AOL and Compuserp, existed. These ISPs distributed usernames on a "first-come-first-served" basis and quickly exhausted the register of usernames that contained common first and last names. Users were left with the option of either adding numbers to their name, such as janedoe12, or using a random identifier or alias such as blackhat. Thus the Internet, as a society, is more receptive to the use of aliases.

Finally, publishing barriers to entry on the Internet differ from those in print and broadcast media. Generally, in order to publish print material in the non-digital world, a series of editing and screening processes take place before the public actually sees the final product. A publishing company serves as a third-party intermediary between author and reader. The publisher's interest is profit-making; taking risks on material that may appeal to only a small audience or is controversial generally does not serve the publisher's economic interest. This risk aversion also motivates the print publishing industry to favor recognizable and popular authors. Even when there is no involvement from a commercial third party, such as with personal newsletters, one can still sense a distaste for anonymous authors, depending on the content of the publication.<sup>173</sup> In short, the print publishing industry does not look favorably upon anonymity, and thus readers rarely see books written anonymously or under a pseudonym.<sup>174</sup> Broadcast content is likewise subject to high barriers to entry, fierce competition, and strict regulations.<sup>175</sup>

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173. For instance, if the newsletter is an underground publication attacking the legitimacy of government structures, then recipients may not prejudge the material due to the use of an alias and might view the material similarly to a Web page.

174. Saul Levmore points out that anonymity is a less acceptable social practice where the source of the information has the ability to use an intermediary, such as a publisher, to avoid confrontation with the recipient. *See supra* note 107, at 2199-2200.

175. Because cable operators create their own spectrum, the spectrum scarcity argument did not apply, and the FCC does not regulate as heavily. However, cable is still subject to competition and high barriers to entry.

*See generally* Turner Broad. Sys., Inc. v. FCC, 520 U.S. 180 (1997) (explaining that intermediate scrutiny should be applied to cable regulation given that spectrum scarcity is not a problem of cable broadcasting). *See also* Quincy Cable TV, Inc. v. FCC, 768 F.2d 1434, 1449 (D.C. Cir. 1985) ("[T]he 'scarcity rationale' has no place in evaluating government regulation of cable television."); *Omega Satellite Products v. City of Indianapolis*, 694 F.2d 119, 127 (7th Cir. 1982) ("[F]requency interference [is] a problem that does not arise with cable television.").

However some courts take the opposite view. For example, in *Red Lion Broad. Co. v. Federal Communications Commission*, the court stated:

The rapidity with which technological advances succeed one another to create more efficient use

People expect broadcasters to select content based on consumer opinion. The publication of information on the Internet, however, does not require the participation of third parties who filter content according to mainstream demands, and thus users are more tolerant of anonymous publications and communications.<sup>176</sup>

The ease with which users may conceal their identity in cyberspace is undisputed. How exactly anonymity affects the origin and evolution of cybernorms is beyond the scope of this Article, but it is clear that a disparity exists between traditional social norm theory and cybernorm theory that should not be overlooked.

## 2. *The Flow of Information*

According to McAdams' esteem theory, information scarcity influences the development of norms because information regarding consensus is key to conformity with or rejection of social norms.<sup>177</sup> However, in cyberspace, the contrary is true. Information is far from scarce in cyberspace; in fact cyberspace *is* information. Hence, the development of cybernorms follows quite a different path than social norms. There are two ways in which information exchange and availability differ in cyberspace. First, the speed at which information is exchanged is unparalleled. Second, information travels greater distances with remarkable ease. These two qualities have created a pervasiveness of information that has not previously existed in society and have caused cybernorms to evolve differently than social norms.

The speed of information flow actually refers to two separate and important characteristics of cyberspace. First, and most obviously, digital data travels at impressive speeds, allowing an e-mail message to arrive seconds later in a colleague's mailbox halfway around the world. Moreover, a less significant component of speed lies specifically in the drafting or formation of e-mail messages. Generally, e-mail users do not write of a

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of spectrum space on the one hand, and to create new uses for that space by ever growing numbers of people on the other, makes it unwise to speculate on the future allocation of that space. It is enough to say that the resource is one of considerable and growing importance whose scarcity impelled its regulation by an agency authorized by Congress. Nothing in this record, or in our own researches, convinces us that the resource is no longer one for which there are more immediate and potential uses than can be accommodated, and for which wise planning is essential.

395 U.S. 367, 399 (1969).

176. Although *moderated* newsgroups or mailing lists do have a user intermediary that screens content before it is sent to the whole group.

177. See McAdams, *supra* note 3, at 362 (arguing that scarcity of information is a relevant factor to consider when analyzing rapid norm change, rules protecting dissent, and the expressive function of law).

quality fit for a written memorandum or even a written letter. This quality standard itself may be described as a cybernorm, but nonetheless contributes to the rate of information flow on the Internet. Both facets of speed accelerate cybernorm development by facilitating the achievement of the consensus needed for norm formation.

Digital data can travel an unprecedented distance, thus giving more people access to the relevant information and leading to a greater societal set of cybernorms. In other words, more people from remote corners of the world can subscribe to certain cybernorms simply because they know of them. In any event, the Internet offers potentially larger and more diverse groups.<sup>178</sup> With the ability to exchange information so efficiently and quickly, perhaps the Internet has enabled the creation of global norms that have not been possible before.

While McAdams has effectively explained the puzzle of norm origin through esteem theory, the distinct qualities of the Internet compel further consideration of cybernorm origin. Cyberspace is truly a unique and complex social system, as demonstrated by the preceding discussion of unmatched anonymity and the ubiquity of information. Only by recognizing where the Internet society differs from non-digital society can one truly start to appreciate and understand the complexities of cybernorms.

## V. CONCLUSION: CYBERNORM'S RELEVANCE

Currently, cyberspace is largely unregulated. Throughout the Internet's relatively short history, formal constraints have been kept to a minimum and informal constraints have largely imposed order. Lately, lawmakers are eagerly drafting Internet legislation while the private sector and government agencies avidly support self-regulation. No matter the outcome, the study of cybernorms is timely and significant because the analysis and understanding of social norms is imperative when imposing formal constraints, such as laws, regulatory policies and precedent,<sup>179</sup> and equally important in advancing informal constraints inherent to a self-regulatory scheme.

Drafting effective legislation requires the consideration and understanding of norms, especially in a largely unregulated and unprecedented arena such

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178. See discussion on groups and group norms, *supra* Part III.A. Although one of the prevailing characteristics of groups is their homogeneity, they may still possess diversity in that they include people from different parts of the world who have come to a consensus on a discrete set of conceptual points.

179. See Cooter, *supra* note 7, at 1652-53 (explaining that the general principles of the common law and codes derive from community practices while regulations lack a foundation in such community practices because they are imposed from the top down).

as cyberspace. Cybernorns hold the key to a wealth of valuable information that legislators should consider and incorporate into the legislative process and legislation itself, to ensure that laws accomplish proper objectives, do not disrupt social balances, and are accepted by the community on which they are imposed.<sup>180</sup> Not surprisingly, such a deliberative process also increases the likelihood that the legislation will become law rather than initially rejected or later disputed by the Internet community. Furthermore, law is in many ways the articulation and enforcement of social norms.<sup>181</sup>

The Communications Decency Act of 1996<sup>182</sup> (the Act) is a paradigm of poorly drafted legislation that ignored the dominant social regularities of cyberspace. From the moment Congress hurriedly added it to the Telecommunications Act of 1996, it was destined for failure due to the drafters' unfamiliarity with the norms and the nature of the medium the Act sought to regulate.<sup>183</sup> Not only did the drafters not understand the

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180. Robert D. Cooter advocates a similar approach in regulating economic development:

I propose that modern lawmakers should respond to the new law merchant much like the alleged response of English judges to the old law merchant. Modern lawmakers, however, should take explicit account of insights from modern economics. First, lawmakers should identify actual norms that have arisen in specialized business communities. Second lawmakers should identify the incentive structure that produced those norms. Third, the efficiency of the incentive structure should be evaluated using analytical tools from economics. Those norms arising from an efficient incentive structure, as ascertained by tests that economists apply to games, should be enforced. I call this procedure the "structural approach" to adjudicating social norms."

*Id.* at 1655-56.

181. Robert C. Post, *Community and the First Amendment*, 29 ARIZ. ST. L.J. 473, 477 (explaining how the "reasonable person standard" in American law uses community norms as a benchmark for judgement).

182. 110 Stat. 133 (codified at 47 U.S.C. §§ 230, 560, 561 (1996)).

183. The Communication Decency Act (CDA) sought to protect minors from harmful material on the Internet. 47 U.S.C. §§ 223(a)(1) and §223(d), prohibited the transmission of obscene or indecent communications and sending patently offensive messages via the Internet to individuals under eighteen. In *United States v. Reno*, plaintiffs challenged the constitutionality of both. 521 U.S. 844 (1997). The Supreme Court determined that the provisions were vague and overbroad in violation of the First Amendment of the United States Constitution. In its analysis, the Court first recognized the inconsistency and ambiguity of the provisions. For example, § 223(a)(1) uses the word "indecent," while § 223(d) uses "patently offensive." *Id.* at 871. There is no definition provided for either of these terms in the statute. *See id.* The Court determined that such vagueness and overbreadth acted as a content-based blanket restriction on speech and therefore suppressed a large portion of speech that adults have a constitutional right to exchange. The government argued in response that the provisions did not prohibit transmitters from "communicating indecent material to adults" rather it forbade them from knowingly disseminating such material to persons under eighteen. *Id.* at 876. However, this demonstrates a misunderstanding of the medium, and as the court stated, ignores the fact that most Internet forums, such as chat rooms, newsgroups, and the Web, are open to all comers. *See id.* To save the statute's constitutionality, the government asked that the severability clause be honored, which would cause non-severable terms to be read narrowly. The Court severed the words "or indecent" from § 223(a)(1), and, at the same time, recognized that the regulation was more likely to interfere with the free exchange of ideas than to encourage it. *See id.* at 885.

technology,<sup>184</sup> but it was obvious that they did not consider or value user norms.

Evidence of lawmakers' lack of cybernorm knowledge was the fierce reaction of Internet users to the pending legislation. With impressive solidarity, the Internet community responded to the CDA with the "blue ribbon campaign" and many Web publishers even blacking out their websites to signify their abhorrence of censorship on the Internet. Interestingly, the campaign was not limited to U.S. Web sites, ostensibly the only sites affected by the legislation, but many sites outside of the U.S. fervently joined the "blue ribbon" free speech campaign. This further supports the notion that free speech is a pervasive cybernorm that many Internet users, whether U.S. citizens or not, deem an inherent quality of Cyberspace, rather than a U.S.-centric notion solely based on First Amendment freedoms.<sup>185</sup> If, instead, lawmakers had recognized the enormous normative value placed on free speech by Internet users, the first attempt at legislating sexually explicit content on the Internet would not have been such a disaster and may not have negatively permeated legislative attempts thereafter.

Furthermore, regulatory policies that actually target social norms are often an intelligently strategic approach to discouraging unwanted social behavior. Such policies may complement existing regulations or independently serve the desired goal. Often, such an approach is the most cost-effective and direct of all alternatives.<sup>186</sup>

Pertinent cybernorms also can provide guidance to judges who confront Internet issues. Judges should not completely defer to cybernorms, however a healthy awareness will ensure better precedent.<sup>187</sup> Proper recognition and

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184. For example, the CDA made no distinction between e-mail and the Web, but instead inaccurately referred to the "Internet" as if it were a single communication medium.

185. The author recognizes that this cybernorm undoubtedly stems from the fact that the Internet is a U.S. based phenomenon.

186. See Sunstein, *supra* note 3, at 908 (proposing that a regulatory strategy that targets social norms may be much more efficient than regulatory policies in discouraging risky behavior).

187. A debate is currently brewing in the academic community as to whether norms that develop in close knit groups are in fact *efficient* norms. See generally Bernstein, *supra* note 79; Cooter, *supra* note 7; Robert C. Ellickson, *Of Coase and Cattle: Dispute Resolution Among Neighbors in Shasta County*, 38 STAN. L. REV. 623 (1986). Efficiency refers to whether the norms actually benefit all parties in the long run. This strand of literature, exemplified by Ellickson, promotes the view that these efficient norms which emerge should be given proper recognition and deference. See Cooter, *supra* note 7, at 1650 (discussing circumstances under which law should defer to norms); Cooter, *Structural Adjudication*, *supra* note 132, at 226-27 (same); Richard A. Epstein, *International News Service v. Associated Press: Custom and Law As Sources of Property Rights in News*, 78 Va. L. Rev. 85, 85 (1992) (discussing the duty of the state to recognize social regularities that impose informal constraints on community behavior and enforce these rules when appropriate). Bernstein further elaborates on how courts rely on social norms in adjudicating disputes, though sometimes to the detriment of the parties:

[M]erchants recognize the distinction between relationship-preserving [norms] [RPN] and end-

deference to norms is not a new concept. Scholars have written extensively about eighteenth century trade practices in England and the body of law that developed around these practices. During this time, the merchants of the medieval trade fairs of England developed their own courts and practices in order to regulate trade.<sup>188</sup> Thus, a self-regulated community of new law merchants developed amidst England's growing legal system. As disputes between merchants arose, English judges began to assume jurisdiction despite their lack of local knowledge and understanding of the established

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game norms [EGN], and do not necessarily want RPNs to be used to resolve end-game disputes. However, courts applying the Code's usage of trade, course of dealing, and course of performance provisions routinely take RPNs into account in deciding cases where the transactors' relationship is at an end-game stage. This adjudicative approach may impose an efficiency loss on transactors not only because it prevents them from selecting their preferred mix of legal and extralegal provisions, but also because in many contexts the content of RPNs is likely to be different from the content of efficient EGNs.

Bernstein, *supra* note 89, at 1802 (footnotes omitted). Eric Posner takes issue with this literature, arguing that these self-regulated groups are likely to produce inefficient norms, norms that often are less efficient than rules created by the state. Posner, *supra* note 3, at 1698. Posner takes this argument one step further by asserting that the state, particularly the courts and legislatures, "produce rules that are more efficient than group norms and, furthermore, that help correct the deficiencies of group norms." *Id.* He goes on to explain that norms are inefficient because even though they produce a collective good, they do so at a cost. However, and the state, unlike private entities, could enforce mechanisms that minimize these costs, thereby maximizing public good. *Id.* at 1724-25. Posner does say that he is only testing whether closely knit group norms are efficient:

It might be said that the norm of honesty [selling one's place in line and selling services to one's neighbor] are stated too generally, and that more specific versions of them promote efficiency. Alternatively, one might argue that these norms are correctly stated and that they are more efficient in the aggregate, even if not in each individual case, than plausible alternatives. But it is difficult to evaluate these claims. There is little reason to believe that general, everyday norms promote efficiency.

*Id.* at 1705. Recall however, that the Internet is not a close knit society, but instead a digital society as heterogeneous as society itself.

188. See Cooter, *supra* note 7, at 1647-48. See also Morton J. Horwitz, *The Historical Foundations of Modern Contract Law*, 87 HARV. L. REV. 917, 927 (1974) (English "[b]usinessmen settled disputes informally among themselves when they could, referred them to a more formal process of arbitration when they could not, and relied on merchant juries to ameliorate common law rules."); Jason Scott Johnston further elaborates on the development of trade regulation, citing to a study by Ray Westerfield. Johnston explains that reputation rather than contractual formalities, governed commercial transactions of English middlemen in the eighteenth century:

[N]either formal contractual devices such as bonds, nor organizational structures or accounting formalities proved effective at controlling fraud and other opportunistic behavior by foreign factory agents. The problem of opportunistic behavior by agents abroad was dealt with successfully only through the evolution of a norm in which merchants mutually acted as factors for one another, with a merchant's reputation for honor and trustworthiness constituting the bond against opportunism. James Scott Johnson, *The Statute of Frauds and Business Norms: A Testable Game-Theoretic Model*, 144 U. PA. L. REV. 1859, 1885 (1996). Part of the strength of the law merchant was that it left the adjudication of mercantile questions to merchants. Arbitration, which allowed parties to choose their own judges, offered the same advantage and thus played a favored role in the resolution of commercial disputes." Bruce H. Mann, *The Formalization of Informal Law Arbitration Before the American Revolution*, 59 N.Y.U. L. REV. 443, 469 (1984).



customs. Judge Mansfield, among others, recognized his lack of familiarity with the intricacies of the business community's practices and, instead of creating new rules, he carefully studied the current customs and identified and enforced the best practices.<sup>189</sup>

The conditions informing Judge Mansfield's approach provides a noteworthy analogy to cyberspace. The Internet began as a unique medium that evolved into a self-regulated community, despite early predictions of anarchy and disintegration.<sup>190</sup> Similar to the new law merchant in Robert Cooter's account, Internet users have developed practices and regulatory mechanisms that adhere to and build upon recognized cybernorms.<sup>191</sup> Certainly Internet users have not developed an intricate and sophisticated set of norms to resolve disputes as had the new law merchants of England. However, customs and practices unique to cyberspace exist, and if understood by judges and lawmakers, can lead to a better understanding of user behavior and therefore better law and precedent pertaining to the Internet. Cyberspace will thrive amidst a legal system whose judges emulate Judge Mansfield; judges who are aware of the relevant cybernorms, do not always attempt to create better customs themselves, and defer to the Internet community standards when appropriate.<sup>192</sup> I stress that I am not suggesting

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189. In Cooter's words, "[t]hus the judges dictated conformity to merchant practices, not the practices to which merchants should conform." Cooter, *Decentralized Law*, *supra* note 7, at 1648.

In contrast to Judge Mansfield's approach, the Uniform Commercial Code's adjudicating philosophy is to use "immanent business norms" (such as course of performance, course of dealing, and usage of trade) when deciding cases. Bernstein, *supra* note 79, at 1766. UCC drafters took this approach to make the code more reflective of the reality of commercial transactions. *See id.* at 1769. However, using immanent business norms may be damaging and actually undermine the UCC's goal of promoting flexibility. *See id.* Courts mistakenly assume that a transactor's actions under a contract best indicate what they intended their writing to mean. In reality, however, these actions reflect relationship-preserving norms (RPNs) that the parties would use to cooperatively resolve a dispute. RPNs differ from the end-game norms (EGNs) that are desirable to use in formal litigation. *See id.* at 1820. Empirical evidence demonstrates that merchants have an implicit understanding of the distinction between RPNs and EGNs and do not necessarily want the RPNs used in a cooperative phase of a transaction also used to resolve a dispute at an end phase of a transaction. *See id.* at 1798. For example, in the grain and feed industry, a common RPN is to "split the difference" in a dispute to preserve a long-standing relationship. *See id.* at 1798-99. However during formal arbitration, the National Grain and Feed Association (NGFA) will follow the desired EGN, which is a more formalistic approach that does not "split the difference." *See id.* To reach this desirable result, and to avoid the damaging misapplication of norms, the UCC should be amended to provide a "safe harbor" clause that would give transactors a method of selecting their preferred degree of contextualized adjudication. *See id.* at 1821.

190. William L. Schrader, *Why The Internet Crash Will Never Happen*, 31 TELECOMMUNICATIONS 1 (1997) (stating that the fact the Internet has survived for two decades with a decentralized management should be reason enough to silence the skeptics who view central control as the key to its survival).

191. *See supra* Part II.B.

192. Karl Llewellyn, another admired figure, sought to modernize American commercial law by

complete deference to cybernorms or adoption and enforcement of existing cybernorms, however, the recognition and understanding of cybernorms will surely lead to better formal constraints.

It is equally important for lawmakers to bear in mind that law can manipulate norms by manipulating information.<sup>193</sup> Understanding the impact that new or amended laws will have on established social norms is essential<sup>194</sup>; however this effect cuts both ways.<sup>195</sup> Cooter, for example, encourages lawmakers to use law intentionally to govern or shape explicit societal norms.<sup>196</sup> Sunstein similarly recognizes that legislators should develop laws to counteract negative social norms, for example by legislating against social norms that encourage people to drive very fast or take drugs.<sup>197</sup>

Conversely, the passage of bad law can negatively affect social norms and pose a concealed danger.<sup>198</sup> This threat is especially present in cyberspace,

reinforcing the most effective commercial practices in contemporary business communities. See Cooter, *supra* note 7, at 1651-52 (comparing Karl Llewellyn to Mansfield as he modernized British commercial law). See also Dom Calabrese et al., *Karl Llewellyn's Letters To Emma Cortsvet Llewellyn From The Fall 1941 Meeting of the National Conference Of Commissioners On Uniform State Laws*, 27 CONN. L. REV. 523, 524 (1995) ("Karl Llewellyn is recognized as one [of] the most charismatic and creative legal figures in the United States in the twentieth century. One of his many accomplishments was his important contribution to the development of the Uniform Commercial Code (UCC)."); Zipporah Batshaw Wiseman, *The Limits of Vision: Karl Llewellyn and the Merchant Rules*, 100 HARV. L. REV. 465, 466 (1987) (noting that although Llewellyn was "a central figure in American legal realism" whose "contribution to the realist ferment has been extensively studied in the literature of American Jurisprudence," his contributions to Article 2 of the UCC "have been largely ignored").

193. See McAdams, *supra* note 3, at 400 (explaining that norm formation requires publicity because without knowledge of consensus people will not appreciate the esteem worthiness of their behavior, and thus it follows that law can play a significant role in publicizing and forming norms). Two interesting norm-manipulation tools of legislators are the expressive function of law and privacy regulation. Law can reinforce, and perhaps even create, desirable norms through the expressive function of law and can prevent or diminish undesirable norms with legal privacy protections. See *id.* at 343. Sunstein describes law's expressive function as "the function of law in expressing social values with the particular goal of shifting social norms." Sunstein, *supra* note 3, at 910. In other words, the "function of law in 'making statements' as opposed to controlling behavior directly." Cass R. Sunstein, *On the Expressive Function of Law*, 144 U. PA. L. REV. 2021, 2025-26 (1996). For example, the cybernorm of not reading another users' e-mail can be reinforced by the enactment of similar regulations that reflect negatively on the opening of another's e-mail. Thus, the simple process of making an act illegal impacts societal attitudes toward that act.

Conversely, privacy regulations are used to discourage undesirable social norms. Just as certain privacy laws were enacted to combat discrimination based on sexual preference, privacy laws disallowing the sale and distribution of collected e-mail addresses or the sale or use of software that captures e-mail addresses for redistribution could be enforced to discourage spamming practices.

194. See McAdams, *supra* note 3, at 349.

195. See McAdams, *Group Norms*, *supra* note 84, at 2239.

196. Cooter, *supra* note 7, at 1694 (presenting a formula for effective legislative drafting that enforces societal norms).

197. Sunstein, *supra* note 3, at 910 (supporting the use of law to limit norms that are obstacles to human well-being and autonomy).

198. See McAdams, *supra* note 3, at 349 (expressing concern that without adequate knowledge of a community's norms some law makers may inadvertently undermine the norms they want to enforce);

where one can hardly explain or deliberately duplicate the delicate social balance that has emerged without governments' guiding hand. The very norm that a legislative body seeks to encourage, or a court seeks to enforce, may be completely disrupted due to the lack of understanding of how this adopted practice would function in a digital society. This potential for legislators and judges to adversely impact cyberspace can, if appreciated by them, provide additional insights into the challenge of integrating social, non-digital concerns with digital society's existing norms. However, the impact that a court decision or regulation can have on social norms typically is not visible at first glance. Therefore, only cautious rule-making and adjudication and careful understanding of the underlying societal norms can prevent this aftershock effect.<sup>199</sup>

Norms also provide a useful tool for predicting the effect of legal rules.<sup>200</sup> Once one recognizes a social norm, one can study it to understand the consequences of similar legal rules. Legislators can gain an understanding of how the community will receive proposed legislation and the effect the legislation will have on the user community.

Law and norms are alternative methods of social order.<sup>201</sup> Ellickson's focused account of Shasta County ranchers' informal mechanism of dispute

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Richard H. Pildes, *The Destruction of Social Capital Through Law*, 144 U. PA. L. REV. 2055, 2073-76 (1996) (noting the difficulty the state would have in duplicating the complex manner in which norms are enforced); Edward B. Rock & Michael L. Wachter, *The Enforceability of Norms and the Employment Relationship*, 144 U. PA. L. REV. 1913, 1932-40 (1996) (citing the difficulty that third parties have in proving cause exists and enforcing incomplete contracts).

199. See McAdams, *Group Norms*, *supra* note 84, at 2239 (warning that the state should exercise caution when using legal rules to regulate norms so as not to compromise the effectiveness of efficient informal resolution systems).

200. See McAdams, *supra* note 3, at 341. See also Dan M. Kahan, *Social Meaning and the Economic Analysis of Crime*, 27 J. LEGAL STUD. 609 (examining how the actions of individuals and communities convey the values of that community and how the social meaning attached to these actions must be considered when discussing criminal law. Cf. Pildes, *supra* note 198, at 2077 (warning that while norms can reinforce laws, laws can undermine norms). But see Sunstein, *supra* note 3, at 946 (stating generally that legal rules can be used to predict and change existing norms).

201. See generally Ellickson, *supra* note 187.

resolution provides not only oft-cited anecdotal evidence of this phenomenon, but also demonstrates how norms that benefit a group's interests emerge, even in the face of contrary law.<sup>202</sup> Ellickson warns that when governments create laws without appreciation of the social conditions that foster informal accord among individuals they produce, a world of more law and less order. Cyberspace faces precisely the same situation.

Lately much focus has centered around a self-regulatory scheme for cyberspace rather than relying solely on rigid and awkward formal constraints.<sup>203</sup> The very concept of self-governance is, in actuality, the imposition of informal constraints on user behavior and would mean, in large part, a consensus of already existing cyb norms and the development of new cyb norms. Thus, for self-regulation to succeed, respected private institutions must endorse or even lead these informal regulatory concepts to ensure the user consensus necessary for the origin and development of cyb norms.

Consequently, as the Internet is at a particularly significant point in its development, the study of cyb norms is of exceptional salience. The Internet's impact upon society and social norms has just begun and will exponentially increase over the upcoming years to the point of complete convergence. Cyberspace has literally reached a critical apex where one can no longer ignore regulatory issues. We know that regulating the Internet is a

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202. *Id.* The ranchers and landowners in Shasta County, California looked to community norms rather than formal law to resolve disputes. Because of the high transactional cost of seeking a legal solution for a minor irritation like trespass, the residents tended to settle their disputes "beyond the shadow of the law." *Id.* at 680-81. It was possible to maintain order in the community without adherence to formal law because continuing, complex relationships among the residents allowed them to enforce norms. *See id.* at 686. For example, most landowners and ranchers were committed to an overarching norm of cooperation among neighbors. Thus, they viewed formal legal action, such as hiring an attorney, as an escalation of a conflict in violation of the "natural working order." *Id.* at 683. Similarly, the residents perceived monetary settlements as "an arms-length transaction that symbolize[d] an un-neighborly relationship." *Id.* at 682. As a result, they looked to informal norms to determine entitlements. *See id.* at 686. Ellickson summarizes that "law-makers who are unappreciative of the social conditions that foster informal cooperation are likely to create a world in which there is both more law and less order." Richard L. Hasen, *Voting Without Law?*, 144 U. PA. L. REV. 2135, 2167 (1996) (quoting ROBERT C. ELICKSON, *ORDER WITHOUT LAW: HOW NEIGHBORS SETTLE DISPUTES* 286 (1991)).

203. Many view self-regulation as the ideal solution because people typically respond positively to self-regulation as compared to formal regulatory constraints. For example, in 1996 when the FTC imposed a rule on funeral directors in an effort to discourage deceptive and fraudulent practices, a disappointing level of 35% compliance was noted. Because this effort was less than successful, funeral directors decided to self-regulate deceptive practices and have achieved a 90% level of compliance. *See* Hon. Robert Pitofsky, Plenary: Jurisdiction and Consumer Confidence in a Borderless Marketplace: Balancing Policy Goals, Address at *Internet Law & Policy Forum Annual Conference*, (July 26, 1999) (transcript available at <<http://www.ilpf.org/confer/trans99/conf99d1.htm>>). *See also* Federal Trade Commission, *FTC Announces Results of the First Year of the Funeral Rule Offenders Program* (last modified Mar. 17, 2000) <<http://www.ftc.gov/opa/1997/9701/frop.htm>>.

monumental task; however proper recognition and understanding of cybernorms ensures our best chances of successful implementation of informal and formal constraints.