Networked Health Information: Assuring Quality Control on the Internet

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I. Introduction

Imagine a day when a woman, pregnant for the first time, gets the majority of her information about preparation for birth and selection of health care providers through her interactive television set. In addition, once she has chosen an obstetrician/gynecologist, she can communicate with the doctor from the comfort of her home or workplace via e-mail, using the town's local network. Any time the doctor feels the woman needs additional information or support, the doctor recommends useful Web sites and question and answer forums that the patient can access through her commercial subscription to Prodigy. \(\frac{1}{2} \)

The Clinton Administration's Health Information and Applications Working Group (HIAWG or Working Group) cites the above scenario as only one exciting application of the National Information Infrastructure (NII) to consumer health information, one of the Working Group's areas of special concern. The NII, described "as a ubiquitous public utility," is a concept currently under development by the Information Infrastructure Task Force (IITF or Task Force). The Task

Force was established by the Clinton Administration in 1993 and is responsible for proposing and developing the policies and initiatives needed to make the NII, and every American's access to it, a reality. In order to accomplish these goals, the IITF is subdivided into several committees. Each committee is broken down into working groups addressing distinct issues of this infrastructure development. One division of this task force is the HIAWG, mentioned above.

The Working Group is charged with analyzing the issues surrounding the development and implementation of readily accessible, free, accurate, and reliable consumer health information supplied to the public through various communications resources. These include text, video, television, telephone, computer software, and the medium dealt with exclusively in this Note—the Internet. The HIAWG is the only IITF working group dedicated solely to examining a category of information carried on the NII.

What makes health information so important that it warrants an entire administrative working group organized entirely around its use and dissemination? Consumer health information "is defined as any information that enables individuals to understand their health and make health-related decisions for themselves or their families." The HIAWG's working theory hinges on the notion that informed citizens and communities are the key to an improved health care system. The problem with our current system is simply that it costs too much. Through unleashing the power of consumer health information, the HIAWG believes that health care costs can be brought under control, while improving the health of Americans in general.

This theory is based on six basic principles and requires consumer health information to be easily accessible, readily available, and tailored to individual needs and learning capacities. The six principles can be summarized as follows: (1) through meaningful education, people can be taught how to reduce risky behavior and embrace preventative behavior; (2) through timely and personalized education strategies, people can learn how to self-treat illnesses and injuries and recognize when it is appropriate to seek additional medical attention; (3) by providing consumers with comparative facts about health care plans and providers, plans and providers will be motivated to provide quality, efficient care; (4) consumer health information is most valuable when provided at each stage of a health care issue—before, during, and especially after—to aid coping and decision-making skills; (5) community health information on topics such as the spread of AIDS or the impact of a hazardous waste spill, must be disseminated in a timely and universal fashion; and (6) consumer health information includes not only medical information, but information on social services, work safety programs, child care—anything that will improve mental, emotional, or physical health. 11

In order to accomplish the above goals, the HIAWG expresses the government's reliance on entities already providing this information to the consumer in order to help develop the NII as the conduit for this valuable subject matter. These entities include libraries, nonprofit organizations, broadcast and print media, employers, and government agencies. ¹² The HIAWG also cites private health care entities, such as managed care organizations, as another major source of support for making consumer health information available to all through the NII. Such entities have a vested economic interest in a more informed and, as the HIAWG would argue, a more healthy population. ¹³

One medium that managed care organizations and privately owned and operated health information providers have used to distribute consumer health information is the Internet, specifically the World Wide Web. ¹⁴ This "networked" health information—the most promise to provide what the HIAWG considers to be the best form of consumer health information—the interactive kind. By this, the Working Group means consumer access to people, specifically medical or social service experts, who will act as intermediaries for the consumer, personalizing information to that consumer's specific needs and comprehension level, and developing an ongoing relationship with the individual in order to quickly facilitate information needs as they arise. ¹⁶

One recognized problem with using the Internet to help accomplish the HIAWG's lofty goals, however, is the issue of information validity and integrity, unique to the Internet, and central to consumer health information. Currently, there is no principled means of ensuring the accuracy of information posted on the Internet by networked health information providers. For example, it is possible that some of the information meant for consumer use is false, misleading,

corrupted by an outside source, or otherwise harmful to the persons reading it for application to their own health care situation. The current state of the law offers little protection to the consumer and little incentive to the information provider to produce reliable information.

This Note addresses the issue of information quality control in the growing field of networked health information provided to the public by private health care organizations. Specifically, it examines ways to enhance health-information accuracy and integrity through federal legislation, which would modify current common law approaches to this issue.

Part II explores two for-profit Web sites that provide networked health information services to the general population in a way that seems to particularly match the vision of the HIAWG. Part III outlines the legal issues engendered by this new means of educating consumers and how networked health information providers are dealing with them, at least in part, through the use of broad disclaimers. Part IV analyzes the law currently applicable to networked health information providers in terms of liability for inaccuracies. Part V applies the law laid out in Part IV to networked health information providers, discusses the problems inherent in this regime, and then suggests the possibility for a federal law specifically governing Internet health information issues.

II. Models: America's HouseCall Network and

Optum Online

A. America's HouseCall Network

In May 1996, Orbis Broadcast Group, the biggest producer of health-related television- and video-based education programs for consumer and health professionals, launched America's HouseCall Network (AHCN). Touted as one of the most comprehensive Web sites devoted to consumer and professional health information, the site was conceived with an NII vision in mind: creation of a nationally coordinated health information system.

Although it offers its information at no cost to the public, AHCN was undertaken as a profit-making venture. AHCN markets itself as an established source of networked health information that any health organization may join without developing and maintaining its own Web site and information databases. These organizations, such as pharmaceutical companies, health maintenance organizations (HMOs), and continuing medical education (CME) programmers sponsor AHCN in the amount of approximately \$50,000 each. In return, these sponsors receive an opportunity to advertise their own Web sites, which may offer marketing and other information to the public but not the comprehensive health information offered by AHCN. Consumer direct access to these sites is available through hyperlinks posted at the AHCN Web site. In addition, the sponsors can advertise AHCN to their consumers as a free information resource, buying good will with the public, while hopefully increasing their consumers' overall health and well-being. AHCN is one of the first private organizations to use the Internet to capitalize on consumer health information—the commodity the HIAWG sees as key to providing cost-efficient health care.

In order to produce the health information provided on their Web site, AHCN won the support of the American Academy of Family Physicians (AAFP), the National Health Council (NHC), and U.S. Pharmacopeia (USP). Previously, all three organizations worked independently to disseminate health information to the public through various media. Through AHCN, they have teamed up to provide their shared knowledge and research in one easily accessible location. In theory, the health information provided on AHCN has its origin in one of the three abovenamed organizations or in AHCN's own vast medical database supplied by its parent, Orbis.

AHCN reports that it receives approximately 50,000 hits²⁵ a day from consumers seeking health information; the most popular categories of information sought by consumers include nutrition, wellness, and prevention.²⁶ The interest in these categories and the volume of hits indicate that AHCN may be successful in the HIAWG's mission to reach the American public with information that, if understood and effectively followed, could improve individual and community health.

B. Optum Online

The first HMO to buy into AHCN's idea of a prepackaged health information Web site was United Health Care Corporation, a Minnesota-based HMO. For its initial investment of \$250,000, United Health Care received recognition on the first page of an AHCN information forum it sponsored and also received a direct link to its own Internet Web site, Optum Online. Optum is United Health Care's health and human risk management company; the Web site is an extension of its NurseLine program, a twenty-four-hour telephone hotline manned by registered nurses. Optum markets the NurseLine program to employers as a means of reducing the number of employee emergency room visits, hospitalizations, tests, etc. Optum

The first of its kind, Optum Online allows consumers to e-mail questions for a credit card fee of twenty-eight dollars per inquiry to registered nurses or masters-level counselors; for only fifty-two dollars, a user may receive a holistic, team approach to the question where both a nurse and a counselor respond. The questions, which may deal with physical, mental, or emotional concerns, are answered within forty-eight to seventy-two hours and are posted for the consumer's private viewing at a confidential Web site. ²⁹ In its publicity material, Optum Online makes it clear that it hopes, through its nurse and counselor on-line services, to develop a continuing relationship with users. The user's first confidential Web site, the material suggests, where their initial question is answered, should become the user's "personal health or personal issues page" where all future issues and questions will be addressed. ³⁰ Although the answers are constructed from 350 physician-developed protocols, ³¹ the answer to the question promises to be individualized to the consumer's personal situation and to also include

recommendations, resources, and references. In so doing, Optum Online achieves the HIAWG's ideal in consumer health information services—interactive, specifically tailored responses to individualized questions with the opportunity for an on-going relationship with an intermediary who knows and understands the consumer's needs.

Optum Online appears to serve at least two purposes. First, it is a marketing ploy to advertise its NurseLine and other program services to employers, as shown by the site's promotional information hyperlinks and information request mechanisms. Second, and probably of less importance than marketing purposes, Optum Online hopes to profit from the consumers who are willing to pay a fee for help from the virtual nurses and counselors.

III. Legal Issues Presented by the Advent of Networked Health Information Sites

The legal questions facing networked health information providers like those described above are legion because these organizations are providing very sensitive material using a relatively new medium. Health information and health care services can potentially cause significant damage to a consumer if misused, misapplied, or misunderstood. Accordingly, the government has traditionally been especially protective of consumers in these areas. No cases have been litigated to determine the degree of responsibility of the Internet provider to ensure the health information it posts or the advice it gives is accurate or protected from technical or human corruption. Because the Internet as a medium itself is unique, it may be difficult to apply law dealing with more traditional media, making outcome predictions mostly guesswork. Additionally, these providers propose to offer a service of national importance and impact while making a profit. Perhaps both factors increase their responsibility to the consumer in ways that other Internet providers do not face. The following is a brief survey of potential issues affecting networked health information providers like AHCN and Optum Online.

A. The Issues

Any person who practices medicine must be licensed to do so to safeguard the public from those who are unworthy or unqualified. Under our current legal scheme, regulation of this nature belongs to the states; ³⁴ the states determine who is licensed to practice, what they practice, and where they may practice. ³⁵ The licensing model does not work for the Internet because of its global nature. ³⁶ An inquiry to Optum Online, for example, could come from a person in Rhode Island, Alaska, or Indonesia. Do the nurses and counselors who provide interactive information via the Internet need to be licensed in every state in the Union in order to provide responses to consumer inquiries which could originate from any state in the Union? How else can our nation protect its people from the on-line healer who may have no

qualifications or a less than stellar performance record? If the licensing model is still a good one, how can it be adapted to a national, or even global, setting?

The provider of health information or other health services is responsible should some harm befall the consumer because of negligent information or treatment. 37 As with licensing, states currently govern the application of consumer protection legislation, medical malpractice, and other tort liability theories available to those who have been harmed. 38 How can these laws and theories be applied on a national scale when a person in Arkansas is injured because of information posted on a Web site maintained by a company in New York and whose content originated with an organization based in Florida? Whose law should be used to determine liability and the standard of care?

It is possible for information disseminated over the Internet to become garbled as the data travels the black expanse of space or wire. It is also possible for a vital server to go down, making it impossible for information to be provided in the timely manner it was promised. What happens when a computer glitch causes a person to do harm to themselves—either by following an erroneous message or by waiting for a response that does not come in time? And who should be held responsible? Should the person in charge of technical support be held liable if he or she fails to find the problem before it starts to wreak havoc on the Web site? Or should the organization that pays for the Web site be held liable if it fails to instruct its users of the possible technical problems that can occur with the system, or fails to take adequate precautions to make sure the technology is reliable in the first place? What happens if the breakdown simply was unpreventable; but, somebody still gets hurt? And where did the breakdown actually occur? What technical safeguards can be implemented to prevent these breakdowns and who should be responsible for developing them? Should certain sites be required to carry these safeguards or at the very least should they carry warnings that some Internet information cannot be trusted for technical reasons?

Not only do those who provide networked health information need to be concerned about the technical problems associated with the Internet, they also need to be aware of problems created by other humans. For example, it is certainly possible that deviants might think it fun to break into a Web site's database and add their own interpretation of the symptoms for sickle cell anemia or explain their own experience with certain drug interactions. In the world of medicine, reputation of the author who published the article often says more about the quality of information included than the article itself. Wrongful source attribution may increase the perception of credibility, but certainly will not increase the accuracy. How do we protect Internet information integrity from those who would maliciously corrupt or abuse consumer health information?

Currently, the best way to secure information over the Internet is through encryption programs. 41 Optum Online, for example, uses an encryption program in tandem with a password-accessed personal Web site to protect the e-mailed questions and responses between the consumer and nurse and/or counselor; yet it acknowledges that it cannot guarantee, even with these precautions, that the information will be kept confidential. 42 Whose fault should it be when confidential information is accidentally released or even lost? How can we prosecute those who would invade private files or break into encrypted records?

AHCN and Optum Online both direct users to other Web sites for more information. Both organizations, however, state that they are not responsible for the information contained at those Web sites. 43 Basically, it's the same as a doctor providing informational pamphlets in her waiting room, but hanging a sign next to them stating that she herself has never read the pamphlets, knows nothing about their content, and advises the patient to read them at his own risk. Can one networked health information provider be held liable for promoting another that turns out to contain false or damaging information? Is it realistic to insist Web sites monitor the content of the hyperlinks they promote?

B. The Disclaimers

One way AHCN and Optum Online have sought to protect themselves from potential liability resulting from some of the above issues is to publish broad disclaimers about the information and services they provide. For example, AHCN's disclaimer declares that information provided by the site is not intended as a substitute for consultation with health care providers and that AHCN offers no warranty for the information provided. The disclaimer also limits damages to the fees paid by the user for the information or service in question. 44 Optum Online's disclaimer also

makes it clear that the service should not be used as a substitute for visits to one's physician, and it denies any liability for damages resulting from the use of the information provided by its service. 45 Both networked health information providers have attempted to exonerate themselves from the responsibility of policing the accuracy and integrity of the information and services they provide. The remainder of this Note explores whether networked health information providers can use such broad disclaimers to protect themselves from all liability, whether they should be allowed to do this, and how this issue of quality control should be handled.

IV. Disclaimers and Information Services—

What Law Governs?

The first question to consider when examining the effectiveness of the disclaimers described above is what law governs this kind of transaction. This question must be viewed in the context of the relationship between the parties involved. In the cases of AHCN and Optum Online, several parties participate in these Web sites, each with various rights and policy arguments. This Part only addresses two relationships and two issues inherent in the activities of the networked health information provider. First, this Part addresses the relationship between the consumer and the information provider regarding the quality of the information exchanged. This is followed by a discussion of the relationship between the the dissemination intermediary, the information provider, and the consumer, regarding the accuracy of the information transfer.

A. The Consumer and the Information Service Provider

The first relationship to explore is that between the consumer and the information service provider. The natural place to look for guidance is in the Uniform Commercial Code (UCC) because various aspects of this relationship look like a commercial transaction—that is, the exchange of money for information on health care issues. Moreover, Article 2, which deals specifically with sales contracts for goods, ⁴⁶ also contains rules for the use of disclaimers for stated and implied warranties. ⁴⁷ Finally, the UCC has been adopted with some modifications in every U.S. jurisdiction and is used as a national model for statutes governing commercial transactions. ⁴⁸

One major limitation of Article 2, however, is that it only deals with transactions where tangible items are bought and sold. Services, like information provision or medical advice, are dealt with only as they apply to the goods being transacted; an exchange of goods must dominate the transaction in order for it to fall under UCC purview. Networked health information providers like AHCN and Optum Online are exclusively in the business of information exchange and whatever relationship they have with consumers can only be described as service contracts. Therefore, the UCC does not apply, and the analysis continues with an exploration of common law, which, unlike the nationally accepted UCC, may vary drastically from state to state.

Theories of common law contract and negligence govern service contracts. Absent in these theories are the concepts of implied merchantability and other warranties present in UCC Article 2 transactions. The standard to which service providers are held varies between services and jurisdictions. According to the *Restatement (Second) of Torts*: "[O]ne who undertakes to render services in the practice of a profession or trade is required to exercise the skill and knowledge normally possessed by members of that profession or trade "52 This standard translates into the reasonable care standard used in negligence theories—it is not equal to strict liability. Like the UCC, however, the providers of services like networked health information are permitted to further reduce their responsibility to the consumer by issuing disclaimers and remedy limitations. Part of this power includes the ability to disclaim the duty of reasonable care. The standard translates are the concepts of the standard to which service provides are the concepts of the standard to which service provides are the concepts of the standard to standard translates into the reasonable care standard used in negligence theories—it is not equal to strict liability. Like the UCC, however, the providers of services like networked health information are permitted to further reduce their responsibility to the consumer by issuing disclaimers and remedy limitations. Part of this power includes the ability to disclaim the duty of reasonable care.

This description of the law applies to service contracts where an intangible such as health care information is exchanged for valuable consideration. Application of this law is appropriate for examining a service like Optum Online, where consumers pay for nurses and counselors to answer their questions. However, what law should apply to organizations like AHCN when it comes to information accuracy, where consumers access the health information freely on the Web and no consideration is exchanged? An information service provider like AHCN, which uses other

organizations' materials to create its databases, can be compared with a publisher of traditional written materials—books. In *Winter v. G. P. Putnam's Sons*, ⁵⁶ two mushroom enthusiasts required liver transplants after collecting and eating poisonous wild mushrooms. They had relied on a book published by Putnam entitled *Encyclopedia of Wild Mushrooms* in choosing to eat the fungus that caused this severe harm. ⁵⁷ The Ninth Circuit refused to hold the publisher liable for the enthusiasts' poisonings. In so holding, the court found that a publisher has no duty to investigate the accuracy of the information it publishes and that this publisher had given no assurances to the buyer as to the integrity of the information. ⁵⁸ Only if the publisher had somehow been negligent or offered intentionally misleading information could it be held liable. The Court summarized the policy reasons for this decision stating, "We accept the risk that words and ideas have wings we cannot clip and which carry them we know not where. The threat of liability without fault . . . could seriously inhibit those who wish to share thoughts and theories." ⁵⁹ Accordingly, AHCN would be held to a negligence standard similar to that of a health information provided in order to pass the reasonable care standard.

B. The Intermediary and the Information Service Provider

The second relationship to be considered in service contracts is that between the information provider and the intermediary used to disseminate the information to the consumer. Here, the information provider is the organization like AHCN or Optum Online. The intermediary is the outside organization hired to maintain technical support of the Web site. The law offers several conflicting models in answer to the question of responsibility for transmission errors. The majority common law approach holds that when an error occurs in transmission, the party responsible for choosing the intermediary (AHCN or Optum Online) bears the liability, except when the receiving party (consumer) should have known the received message was flawed. Those supporting a minority position, however, believe that the sending party (AHCN or Optum Online) is not responsible for errors by the independent contractor intermediary. Another way to characterize the intermediary is as a common carrier, responsible only for keeping the service available. If the intermediary assigned to disseminate the consumer health information could be classified as a common carrier, it is again absolved from any liability for the quality of the information delivered. In most cases, the sender (AHCN or Optum Online) apparently bears the ultimate responsibility for any transmission errors as between the consumer, sender, and intermediary, unless the problem was so obvious that the consumer should have known better. Based on the discussion above, however, the sender

(AHCN or Optum Online) and the intermediary are party to a service contract as between themselves, so any loss the sender has incurred could be passed back to the intermediary if the intermediary was negligent in performing its professional duties (as long as the intermediary does not qualify as a common carrier).

C. Summary

Networked health information providers engage in contracts for services and not goods and thus are not subject to the well-worn and relatively uniformly applied laws of the UCC. Therefore, these providers are governed by common law, which includes no implicit warranties in these contracts and allows for further disclaimers and remedy limitations. These contractors are held to a reasonable care negligence standard rather than strict liability. The standard is the same for both true service contracts and those publishers providing networked health information at no cost to the general population. However, the networked health information providers are probably responsible for transmission errors attributed to the intermediary information disseminator—unless the error is so obvious that the consumer should have known the information was flawed, or if the intermediary was negligent in performing its contract with the provider.

The law appears to be highly protective of the networked health information provider and leaves the consumer with little protection or recourse. The following Part explores the reasoning behind the above conclusion.

V. Applying the Law to Networked Health Information Providers

A. Problems

If the goal is to ensure the accuracy and integrity of consumer health information with an eye on increasing the

availability of this information to the public, ⁶³ the current state of the law seems problematic and unsatisfactory when applied to networked health information providers. First, the Internet is a global phenomenon. ⁶⁴ Attempting to apply a negligence standard based on common law that varies from state to state creates a number of impediments to bringing lawsuits and may also result in slowing network development. Second, public policy militates against the ability of networked health information providers to walk away from their responsibility of information accuracy and integrity by prefacing relationships with consumers with lengthy disclaimers.

The first problem for consumers when attempting to recover from some wrong caused by a health information provider's negligence is to determine what "reasonable care" means in their jurisdiction. Because of the global nature of the Internet, the information provider and the consumer may be based in two completely different geographic locations. Each state will have its own common law negligence doctrines that may yield different outcomes. Negligence standards for health care professionals provide one example. Such standards are based on a community—not even a state-wide—standard of care. In addition, because these issues have not been litigated in this context, no jurisdiction has specifically articlated a standard of care for networked health information providers. Varying and undefined standards may result in forum shopping by the parties in an attempt to land in a jurisdiction more favorable to their desired outcome. Forum shopping is an expensive prospect that costs time and attorney's fees.

Lack of uniform standards as applied to networked health information may prohibit the average consumer from bringing suit against a negligent provider. Absorbing the additional costs associated with complex and drawn-out litigation may not be a problem for the corporate defendant information provider. This may not be the case for the plaintiff consumer, however. Due to expensive injuries, a consumer may desire a quick settlement. Additionally, the consumer may not be able to afford to pay an attorney to do the necessary research, or may not be able to afford to appear in another state for trial. Without the real threat of liability, a networked health information provider therefore has no legal incentive to ensure that the information it provides to consumers is accurate and responsible.

Similarly, lack of standardization may impair the growth of networked health information. If it becomes apparent that successful suits can be brought on negligence theories, information providers will have to ensure that their material and services meet the proper standards in all fifty states in order to be protected from suit. Rather than try to predict the outcome of service access in every state or community, some providers may choose not to enter the fray at all. 67

Besides being held to an unworkable and unpredictable negligence standard that will probably result in few lawsuits, networked health information providers further benefit by being able to preface any service delivery with detailed disclaimers absolving them from liability that may arise from injury caused by the information or services they provide. In so doing, the consumer is left without recourse should injury occur. Therefore, the networked health information service providers are hardly motivated to ensure the accuracy and integrity of the information they carry. AHCN and Optum Online, as profit-making ventures, may strive to provide quality services because the success of their business depends on their reputation for reliable information. However, that should not excuse them from responsibility to the consumer for the services provided, especially since AHCN and Optum Online profit from this undertaking. Otherwise, these organizations have the best of both worlds—a successful business with no chance of suit from the very people it serves. In light of the importance of networked health information to our national health care system and the degree of damage misinformation on health care issues can do to a consumer, public policy advocates certain restrictions on disclaimer usage.

B. Solutions

One important principle to keep in mind is that, as a nation, not only do we want to be assured of quality networked health information, but we also want its increased dissemination over the Internet. Therefore, any solution should not be calculated to cripple the growth and development of networked health information. Some tort liability may be good, but overexposure can bankrupt an organization or prevent it from expanding into new fields. If the HIAWG concludes that the biggest advances in networked health information must be made by managed care organizations, any changes in the existing system must be reasonable and manageable, both from a consumer and private industry perspective.

A drafting committee for the UCC is discussing a revision of the Code to include implied warranties in information exchange. The revision resembles the implied warranty of fitness for a particular purpose that exists in contracts for sale of tangible goods. The purpose of this revision of the UCC is to take the governance of information and services out of the common law and to codify it on the national level. UCC as the mechanism is one way to nationalize the law governing consumer health information and eliminate the barriers both to consumer suits and information services development.

Following the UCC model, limitations could also be placed on disclaimers which are not in the public interest. The UCC allows organizations to disclaim, in part or in whole, any express or implied warranties for the material they present for sale or consumption. However, disclaimers similar to those used by AHCN and Optum Online are subject to limitations that protect consumer rights. However, a disclaimer may be void if the consumer did not receive notice of the disclaimer, such as when the consumer was not informed of the disclaimer at the time of purchase or when the disclaimer was visible but illegible. A disclaimer may be void if it violates the duty of good faith—the overarching principle the UCC requires in every transaction. It may also be void for specific reasons: for example, if the particular disclaimer did not deal with the harm for which damages are sought or if the party making the disclaimer was not the seller of the product. A disclaimer may also be invalid if it violates public policy. Because of the strong public policy reasons for protecting consumers from inaccurate and potentially harmful information, organizations should not be able to disclaim their warranty responsibilities and must still be held to an appropriate standard of care.

Instead of UCC revisions or public policy limitations on disclaimers, a better way to address these problems is through national legislation such as a "Networked Health Information Act"—dealing specifically with the unique issues surrounding networked health information. Proposed section 2B-404 of the UCC⁸¹ is a positive step toward sorting out the complex relationship between information providers, consumers, and third parties. However, it deals only with those organizations offering services that are bought and sold; it does not cover organizations offering information free of charge—at least to the public.⁸² It also covers all information providers (not just those who disseminate networked health information), and thus does not offer solid protection to consumers. It seems somewhat counterintuitive to set up a whole structure for governing networked health information which necessarily would include disclaimers, only to tear it down by calling those disclaimers void for public policy reasons.

The "Networked Health Information Act" should clarify the UCC's standard of reasonable care and workmanlike effort 83 expected from networked health information providers, both in terms of those providing their own information or services to the public and those who create databases of others' material. Unlike the policy promoted by the common law, and under the revised UCC 84 networked health information providers should be responsible for all information appearing at their Web sites, regardless of whether they produced it, in order to motivate providers to disseminate quality information. When providers publish the work of others, they should have a duty to inquire into the reliability and accuracy of the information.

In order to keep the regulation from being too burdensome, the standard should remain rooted in negligence theories of tort liability and not evolve into a strict liability standard. In addition, networked health information providers should not be responsible for the hyperlinks appearing on their Web sites. The personnel and other resources that would be expended in routinely checking the content at those other sites seem prohibitive, especially in light of the hope that all networked health information providers would be held to some standard of responsibility for their materials, thus making additional checking unnecessary. Also, the provider should be required to take information integrity precautions, such as mandatory encryption programs. If a provider complies with the encryption or other security measures called for, it should not be held liable for hacker activities that may corrupt data.

Disclaimers should still be allowed, but used more as an education tool for consumers, rather than as a way to eliminate consumer rights. For example, networked health information providers should not be able to disclaim responsibility for the accuracy of the information, but they should be able to explain—and therefore not be held liable for—some of its limitations. Specifically, disclaimers should note that information presented is in summary form and

not tailored to a user's specific individual needs; 85 that health information is constantly changing and that because the Web site is only updated periodically, it may not contain the most recent information on a particular topic; that responses to questions are crafted around the information provided by the consumer and that the provider cannot be responsible for facts it was not informed of; 86 that although it is responsible for the information provided at its Web site, it is not responsible for any information appearing at hyperlinks. The disclaimer should also make the consumer aware that the Web site is a commercial organization and, as such, it may not offer information on subjects it or its sponsors do not wish to promote. This kind of information access is a particularly sensitive topic for managed care organizations, who have a vested interest in preventing patients from insisting upon experimental treatments that are very expensive and have a minimal success rate. 87

In order to protect the organization from possible liability due to transmission problems through the intermediary, the disclaimer should also explain the possibility of garbled communications and the consumer's responsibility to use her best judgment when information appears suspicious. Finally, the disclaimer should be prominently displayed on the organization's home page ⁸⁸ and not buried in another page, to ensure the consumer understands her rights and her own responsibilities.

Other kinds of networked information providers, such as nonprofit organizations or government entities, may require different consideration because they provide networked health information not as a commercial venture but as a public service. Commercial networked information providers, however, should carry some liability for their services because they can bear the loss. In addition, they are in the best position to develop improved means of maintaining information integrity, including ways to thwart hackers who may alter the information provided on their Web sites.

The organization in the best position to draft this suggested legislation is already assembled and briefed on these issues —HIAWG. In addition, HIAWG, along with other IITF entities, already acknowledges that some uniform standards need to be developed in order to make the NII and its various applications a success. 89

VI. Conclusion

Because networked health information is so important to meet the needs of the American public and to improve the cost effectiveness of the national health care system, its dissemination via the Internet cannot be compromised by inaccuracy and lack of integrity. As networked health information sites such as AHCN and Optum Online emerge with force into the national marketplace, consumer protection issues must be addressed. This Note has suggested approaching the issues of information integrity and tort liability through adopting a national law dealing specifically with liability for services providers. The result of such a law, developed under the UCC or by the HIAWG, should limit the effect of blanket liability disclaimers.

Equally important, however, is to educate the public about the Internet. If the goal of networked health information is to reach all Americans, especially the poor and underserved, then these individuals, previously isolated from and uneducated about the Internet, must learn the appropriate uses of information provided by this new medium. In the meantime, asking the networked consumer health information provider to take responsibility for the information it offers is possibly the only way to ensure quality control on the Internet.

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- 1. Consumer Health Information Subgroup, Information Infrastructure Task Force, Consumer Health Information § 4.0 (Kevin Patrick & Shannah Koss Co-Chairs, 1995) (White Paper working draft) (visited Sept. 30, 1997)
- < http://nii.nist.gov/pubs/chi.html> [hereinafter Consumer Health Working Draft].
- 2. Catherine M. Crawford, Ph.D. & HIAWG Work Group on Managed Care, Information Infrastructure Task Force, Managed Care and the NII: A Public/Private Perspective ii (1996) [hereinafter HIAWG White Paper].
- 3. See The Administration's Agenda for Action § IV (visited Jan. 17, 1998)

http://sunsite.unc.edu/nii/NII-Agenda-for-Action.html. "Activities of the IITF include coordinating government efforts in NII applications, linking government applications to the private sector, resolving outstanding disputes, and implementing Administration policies." *Id*.

4. For an organizational chart and descriptions of committees and working groups, see *IITF Committees and Working Groups* (visited Oct. 4, 1997)

<http://nii.nist.gov/committees.html>.

- 5. *Id*.
- 6. See Consumer Health Working Draft, supra note 1, §§ 3.0-3.6.
- 7. All told, there are seven working groups, the majority of which are involved with developing policy and technology, and addressing legal issues such as intellectual property rights. *See IITF Committees and Working Groups*, *supra* note 4.
- 8. Consumer Health Working Draft, *supra* note 1, § 1.1. The paper states that consumer health information includes such topics as "supporting individual and community-based health promotion and enhancement, self-care, shared (professional-patient) decision making, patient education and rehabilitation, using the health care system and selecting insurance or a provider, and peer-group support." *Id.*
- 9. *Id.* § 1.2.
- 10. The health care expenditure is projected to rise to \$1.7 trillion by the year 2000, making health care over 18% of the gross domestic product. Sally T. Burner et al., *National Health Expenditures Projections Through 2030*, 14 Health Care Fin. Rev. 1, 14-15 (1992).
- 11. Consumer Health Working Draft, supra note 1, §§ 1.2.1-1.2.6.
- 12. See generally id. §§ 2.2-2.7.
- 13. See generally id. § 2.1; HIAWG White Paper, supra note 2, at 28.
- 14. *See, e.g.*, *HealthAnswers* (visited Jan. 15, 1998) < http://www.healthanswers.com; *United Healthcare* (visited Sept. 30, 1997) < http://www.optumcare.com; *The Healthy Back Store* (visited Sept. 30, 1997) < http://www2.healthyback.com/hbs/default.gry.
- 15. Consumer Health Working Draft, *supra* note 1, § 3.6.
- 16. See id. § 4.0.
- 17. See id. § 6.7; see also HIAWG White Paper, supra note 2, at 28-30.
- 18. Health Network for Consumers & Professionals is Launched, Providing Access for Millions to Health Information, PR Newswire, May 21, 1996, available in WESTLAW, Prwire [hereinafter Health Network Launched]. In late 1997, America's HouseCall Network (AHCN) changed both its Web name and its Web address. AHCN is now known as HealthAnswers on the Web, and may be found at http://www.healthanswers.com. Throughout this Note, reference to AHCN will encompass the information included in the HealthAnswers Web site.
- 19. AHCN links users with information on more than 200 disease categories, on more than 100 voluntary health care agencies, on health care plans and providers, and on daily health news. Additionally, AHCN involves consumers in physician-moderated chat groups, and introduces consumers to products and other services. *Health Network Launched*, *supra* note 18, at 1.
- 20. *Id.* (paraphrasing Tim Bahr, President, AHCN).

- 21. Internet Links Consumers and Managed Care Groups (visited Jan. 17, 1998)
- < http://www.optumcare.com/learn.about/press/press5.html | [hereinafter Consumers and Managed Care].
- 22. A hyperlink is generally a piece of highlighted text, which, when the user points to it with the mouse and clicks, takes the user to a linked topic on a completely different Web site. Adam Gaffin, *EFF's Guide to the Internet*, v. 3.16, § 9.1 (Dec. 11, 1996) http://www.eff.org/pub/Net_info/EFF_Net_Guide/netguide.eff>.
- 23. AAFP represents over 83,000 family doctors; NHC has a membership of 106 national health organizations such as the American Cancer Society, American Diabetes Association, and a number of leading "aging organizations." USP is the oldest and most established
- compendia of standards for prescription and over-the-counter drugs. Health Network Launched, supra note 18, at 2.
- 24. NHC President Merl Weinberg said: "Our members have a wealth of valuable disease related information to bring to AHCN. Using AHCN, we can disseminate this information to patients quickly and accurately." *Id.*
- 25. One hit represents a single request from a Web browser for a single item on a Web server. This means that if a request is made to display a Web page that includes three graphics, four "hits" would actually be counted at the server—one for the html page and one for each of the three graphics displayed. *ILC Glossary of Internet Terms*, at 6 (visited Sept. 30, 1997) http://www.matisse.net/files/glossary.html>.
- 26. Consumers and Managed Care, supra note 21, at 2.
- 27. *Id.* at 1; *Health Information and Education* (visited Sept. 30, 1997) http://www.optumcare.com/health.ed/online/index.html>.
- 28. Optum's NurseLine boasts that of the 20% of surveyed employees who used NurseLine about surgery their doctor recommended, 30% of those employees either postponed surgery or opted for a nonsurgical alternative; of the 18% of surveyed employees who used NurseLine for information on physician-recommended major medical tests, 10% opted for alternative tests or decided not to get them at all; of the 3% of surveyed employees who used NurseLine to discuss physician-recommended hospitalization, 14% either used home treatment or postponed hospitalization. Because of NurseLine, .77 doctor visits and .15 emergency room visits per surveyed employee were saved. *The Proven Benefits of Optum NurseLine* (visited Sept. 30, 1997)
- http://www.optumcare.com/learn.about/value/studies/5.html>.
- 29. Learn About Optum (visited Jan. 17, 1998)
- http://www.optumcare.com/learn.about/press/press4.html>.
- 30. *Id*.
- 31. Optum NurseLine (visited Jan. 17, 1998)
- < http://www.optumcare.com/learn.about/services/portfolio/3a.html>.
- 32. Learn About Optum, supra note 29; see also Health Information and Education Services Examples (visited Jan. 17, 1998)
- http://www.optumcare.com/health.ed/online/exams.html (providing a sample personalized Web site, including sample questions and responses).
- 33. See Optum Portfolio at a Glance (visited Jan. 17, 1998)
- < http://www.optumcare.com/learn.about/services/index.html>; Optum: Information Request (visited Sept. 30, 1997)

< http://www.optumcare.com/forms/info.request.html>.

- 34. See generally 61 Am. Jur. 2d Physicians, Surgeons, etc. § 27 (1981).
- 35. *Id*.
- 36. The Internet is a "network of networks," which, because of its standardized communication protocols, is able to link computer systems across national boundaries. Although it is impossible to count the number of computers and networks that make up the Internet, estimates report that about 12,000 networks connect nearly 4 million computers and more than 20 million people around the world. *See* Gaffin, *supra* note 22, §§ 1.7-1.8.
- 37. See generally 61 Am. Jur. 2d Physicians, Surgeons, etc. § 201 (1981).
- 38. See generally id. § 200.
- 39. Data is transported on the Internet using a technology called "packet switching." This means that a piece of information does not travel to its destination as a unified whole, but is broken up into discrete "packets," each routed separately to the destination, where the message is reassembled. This is done in order to route information around downed circuits or computers. Any error that occurs along the way is virtually untraceable to a particular server or computer. Gaffin, *supra* note 22, § 1.7.
- 40. See generally Fred H. Cate, Intellectual Property and Networked Health Information: Issues and Principles, 84 Bull. Med. Libr. Ass'n. 229, 234 (1996).
- 41. Encryption is the use of specially designed computer software to convert a message into what appears to be gibberish to everyone except the intended recipient. The intended recipient has a key that will decipher the message. Online Law: The SPA's Legal Guide to Doing Business on the Internet 513 (Thomas J. Smedinghoff ed., 1996).
- 42. The Optum disclaimer reads:

IF THIS IS AN EMERGENCY OR YOU ARE IN A LIFE THREATENING SITUATION, CALL 911 OR PROCEED TO THE NEAREST HOSPITAL. IF 911 SERVICE IS NOT AVAILABLE IN YOUR AREA, CALL YOUR LOCAL POLICE OR FIRE DEPARTMENT.

Although we strive to protect your confidentiality throughout this process, we are subject to the current limitations of the Internet. We will use encryption technology to transfer your message and assign a personal access code to your response. However, we cannot guarantee that third parties cannot access the information that you provide to us or the response we provide to you. State or federal law may require Optum Online to reveal information received here, including threat of serious harm to self and/or others or a reasonable cause to believe a child or vulnerable adult is experiencing abuse or neglect.

The responses received from a nurse and/or a counselor are general information and education only. The information is in summary form and is not meant to be complete. The information received here is not meant to be a substitute for professional medical care or attention by a qualified practitioner, nor should they be considered to be. Before starting or altering a program of treatment, or if you have any questions or concerns about a particular treatment, you should always check with your doctor.

Optum Online can only provide information regarding your inquiry based on the information you gave to us. Optum Online is not responsible or liable, directly or indirectly for any damages resulting from the use or misuse of the information contained in the response from a nurse and/or counselor.

Optum Online is not responsible or liable, directly or indirectly, for any damages resulting from the use or misuse of the information contained in or implied in any reference materials that a counselor or nurse may refer to as a source of information. Optum Online makes no warranty as to the completeness, reliability or accuracy of such materials. Any reference to a URL, newsgroup, mail list or other function online is provided as an information service only; Optum

Online does not endorse or screen such services.

Any reference contained in the informational responses to a commercial process, product, company or service is not a recommendation or endorsement by Optum Online.

If a suggestion is made to contact a community resource, you are responsible for any costs associated with the use of that resource. Resources are not pre-screened by Optum Online.

Optum Online Disclaimer (visited Oct. 4, 1997)

< http://www.optumcare.com/health.ed/online/disc.nurse.html > [hereinafter Optum Disclaimer].

43. *Id*; *AHCN Disclaimer* (visited Jan. 17, 1998)

 [hereinafter AHCN Disclaimer]. The AHCN disclaimer reads:

Information accessed through HealthAnswers is presented in summary form in order to impart general information relating to certain diseases, ailments, physical conditions and their treatments. Such information is not complete and should not be used as a substitute for a consultation or visit with your physician or other health care provider. Information accessed through HealthAnswers is not exhaustive and does not cover all diseases, ailments, physical conditions or their treatments. HealthAnswers makes no warranty as to the information's completeness, reliability or accuracy. Should you have any health care related questions please see your physician or other health care provider promptly.

Information accessed through HealthAnswers is provided "AS IS" and without warranty, express or implied. All implied warranties of merchantability and fitness for a particular use or purpose are hereby excluded. HealthAnswers's liability, if any, for damages (including, without limitation, liability arising out of contract, negligence, strict liability, tort or patent or copyright infringement) shall not exceed the fees paid to HealthAnswers by the user for the particular information or service provided. HealthAnswers shall not be liable under any theory of indemnity. In no event shall HealthAnswers be liable for any damages other than the amount referred to above, and all other damages, direct or indirect, special, incidental, consequential or punitive, are hereby excluded even if HealthAnswers has been advised of the possibility of such damages.

- 44. AHCN Disclaimer, supra note 43.
- 45. Optum Disclaimer, supra note 42.
- 46. See U.C.C. § 2-102 (1995).
- 47. See U.C.C. § 2-316 (1995); Warranties are described in U.C.C. § 2-315 as follows:

Where the seller at the time of contracting has reason to know any particular purpose for which the goods are required and that the buyer is relying on the seller's skill or judgment to select or furnish suitable goods, there is unless excluded or modified under the next Section an implied warranty that the goods shall be fit for such purpose.

- 48. Thomas D. Crandall & Douglas J. Whaley, Cases, Problems and Materials on Contracts xxxii (1987).
- 49. Raymond T. Nimmer, *Services Contracts: The Forgotten Sector of Commercial Law*, 26 Loy. L.A. L. Rev. 725, 726 (1993). Professor Nimmer views this as a major downfall of the UCC because service contracts make up such a large proportion of today's economy and commercial transactions. He describes the UCC as suffering "from a subject-matter obsolescence which, if not a terminal illness, describes an acute failure of the heart and soul of the codification movement." *Id.* at 725.
- 50. For a list of other transactions in information, see Raymond T. Nimmer & Patricia Ann Krauthaus, Information as

a Commodity: New Imperatives of Commercial Law, Law & Contemp. Probs., Summer 1992, at 103, 105-06 n.4. The fact that AHCN does not charge consumers for the information provided, thus not establishing a true contract with consumers due to lack of consideration, is addressed later in the text.

- 51. Raymond T. Nimmer, *Electronic Contracting: Legal Issues*, 14 J. Marshall J. Computer & Info. L. 211, 232 (1996).
- 52. Restatement (Second) of Torts § 299A (1965).
- 53. Nimmer, supra note 51, at 234.
- 54. *Id.* at 241.
- 55. Nimmer & Krauthaus, *supra* note 50, at 129.
- 56. Winter, 938 F.2d 1033 (9th Cir. 1991).
- 57. Id. at 1034.
- 58. Id. at 1037.
- 59. Id. at 1035.
- 60. Nimmer, supra note 51, at 239.
- 61. Restatement (Second) of Contracts § 64 cmt. b (1981).
- 62. Nimmer, *supra* note 51, at 241.
- 63. See supra Part I for a discussion of the HIAWG's goals regarding the proliferation of consumer health information applications on the NII.
- 64. See supra note 36.
- 65. Here, the discussion is limited to information providers and consumers who are both located in the United States. This issue obviously becomes even more complex if the dispute is between parties from different nations.
- 66. 61 Am. Jur. 2d *Physicians, Surgeons, etc.* § 202 (1981).
- 67. Small providers may be especially discouraged from entering the health information marketplace because they do not have the same expertise and resources available to larger companies. *See* Nimmer, *supra* note 49, at 735.
- 68. See supra Part I.
- 69. See supra notes 12-13 and accompanying text.
- 70. The UCC proposal states:

Section 2B-404. IMPLIED WARRANTY: INFORMATIONAL CONTENT

- (a) Subject to . . . subsections (b) and (c), a merchant that provides informational content in a special relationship of reliance or that provides services to collect, compile, transcribe, process, or transmit informational content, warrants to its licensee that there is no inaccuracy in the informational content caused by its failure to exercise reasonable care and workmanlike effort in its performance.
- (b) A warranty does not arise under subsection (a) for:

- (1) the aesthetic value, commercial success, or market appeal of the content;
- (2) published informational content;
- (3) informational content in manuals, documentation, or the like, which is merely incidental to an activation of rights and does not constitute a material portion of the value in the transaction; or
- (4) informational content prepared or created by a third party, if the party distributing the information, acting as a conduit, provided no more that editorial services with respect to the content and made the informational content available in a form that identified it as being the work of the third party, except to the extent that the lack of care or workmanlike effort that caused the loss occurred in the party's performance in providing the content.
- (c) The liability of a third party that provides the informational content is not avoided by the use of a conduit described in subsection (b)(4) or by the fact that the conduit is not liable for errors under that subsection.

U.C.C. § 2B-404 (Proposed Draft 1997).

71. See supra note 47.

72. The introduction to the proposed UCC revision of Article 2B (dealing with transactions in information) states that "[t]he challenge for commercial law . . . is to adapt to the reality of the NII by providing clear guidance as to the rights and responsibilities of those using the NII. Without certainty in electronic contracting, the NII will not fulfill its commercial potential." U.C.C. Article 2B introductory note (Proposed Draft 1997) (alteration in original) (quoting Information Infrastructure Task Force, Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 58 (1995). In addition, it is assumed that "private contract, rather than regulation, should guide the new economy and that the basis for this lies in the development of a `commercial code' for electronic and other information contracts, both within the United States and internationally." *Id*.

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73. See U.C.C. § 2-316 (1995).
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74. For disclaimer text, see *Optum Disclaimer*, supra note 42 and AHCN Disclaimer, supra note 43.

75. See 63 Am. Jur. 2d Products Liability § 510 (1996).

76. See id.

77. Id.; U.C.C. § 1-203 (1995).

78. 63 Am. Jur. 2d Products Liability § 795.

79. Id. § 801.

80. Id.

81. See supra note 70.

82. Id. § 2B-404(a).

83. Id.

84. Id. § 2B-404(b)(4).

85. AHCN and Optum Online already do this. See supra notes 42-45 and accompanying text.

86. See Optum Disclaimer, supra note 42.

- 87. See HIAWG White Paper, supra note 2, at 29-30.
- 88. A home page is a Web site's opening document (documents are called "pages") that generally serves as a table of contents describing and providing access to (through hyperlinks) the rest of the information available at the Web site. Gaffin, *supra* note 22, § 9.2.
- 89. See Consumer Health Working Draft, supra note 1, § 7.8; HIAWG White Paper, supra note 2, at 32.