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NOTE

ARE ONLINE CONSULTATIONS A PRESCRIPTION FOR TROUBLE? THE UNCHARTED WATERS OF CYBERMEDICINE

INTRODUCTION

Dr. Leandro Pasos was an orthopedic surgeon who struggled to make a living and needed a job.¹ Upon reading a Seattle newspaper, an unusual advertisement caught his eye: Doctors with active licenses could earn up to \$10,000 a month for conducting "fully automated online medical reviews."² The ad was placed by Performance Drugs Inc., a company that marketed Viagra on the Internet. In response to the increased public demand for this drug, the company needed doctors to write prescriptions.³ For a salary of \$5,000 a month, Dr. Pasos agreed to review questionnaires submitted over the Internet by prospective Viagra patients and to authorize prescriptions. However, last May, the Washington Medical Quality Assurance Commission cited Dr. Pasos for unprofessional conduct, and he was fined \$500. Dr. Pasos was sanctioned by the Quality Assurance Commission because he was an orthopedic surgeon specializing in complications of bones and joints, rather than in

¹ See 'Cybermedicine' Raises Ethical Questions, THE NEWS & OBSERVER (Raleigh, NC), June 28, 1999, at A7, available in 1999 WL 2757600.

² *Id.*

³ See *id.* Viagra is used to help men with impotency. It is considered one of the new lifestyle drugs, a medicine that is meant to enhance the quality of life, as opposed to curing disease. See Naftali Bendavid, *Plan to Regulate Over-the-Web Drug Sales Draws Fire Clinton Wants the FDA to Monitor Internet Pharmacies, but Some Wonder if the Agency is Right for the Job*, CHICAGO TRIBUNE, Dec. 29, 1999, at 1, available in 1999 WL 31275091.

impotence.⁴ More importantly, in the faceless world of cyberspace, he was prescribing drugs to people he had never physically examined.

Currently, there are no professional standards for physicians who are practicing medicine on the Internet.⁵ According to Dr. Arthur Caplan, the director of the Center for Bioethics at the University of Pennsylvania, a person may be getting medical advice for her allergies from a pathologist or advice for her psychological problems from a gastroenterologist.⁶ Similarly, critics argue that a complete medical examination cannot be obtained without a physical exam, where the physician can see, touch, feel, and smell a patient and obtain as much information as possible so that the physician can be accurate in her diagnosis and treatment.⁷

Therefore, this new mode of "practicing medicine" on the Internet has raised several questions among critics of cybermedicine: Is it safe? Will it replace office visits? How can a physician truly examine a patient he has never seen?⁸ Does an online consultation create a physician-patient relationship, and, if so, will it negate the traditional physician-patient relationship?⁹ Will patients turn to cybermedicine because the stability of the HMO industry is currently in flux and there is a growing dissatisfaction with managed care?¹⁰ Will physicians diagnose patients in areas where they have no expertise?¹¹ What happens when a cyber-physician misdiagnoses a patient?¹² Could inaccurate advice prevent a patient from seek-

⁴ See "Cybermedicine" Raises Ethical Questions, *supra* note 1, at A7

⁵ See Sheryl Gay Stolberg, *Need a Doctor in a Hurry? How About MD.com?*, N.Y. TIMES ON THE WEB, July 4, 1999, (visited Oct. 20, 1999) available in <http://www.cyberdocs.com/mediapress/nytimes_070499.htm>.

⁶ See *id.*

⁷ See *id.*

⁸ See Aaron Zitner, *Growth in Cybermedicine Raises Questions of Legitimacy*, THE JOURNAL RECORD (Okla. City), Sept. 10, 1998, available in 1998 WL 11959551.

⁹ See Katie Hafner, *Cyber Medicine: Web Information Can Change the Doctor-Patient Relationship*, FT. WORTH STAR-TELEGRAM, July 30, 1998, at 3, available in 1998 WL 14917924.

¹⁰ See Lisa Ramirez, *Online Doctors Stirring Debate Internet Consultations are Becoming More Popular, but Some Physicians Call Them Prescriptions for Trouble*, THE PRESS-ENTERPRISE (Riverside Cal.), Aug. 9, 1999, at A1, available in 1999 WL 18898714.

¹¹ See "Cybermedicine" Raises Ethical Questions, *supra* note 1, at A7.

¹² See Zitner, *supra* note 8.

ing necessary care? Would a patient lose precious time while waiting for an answer from a cyber-physician?¹³ Does a cyber-physician, by practicing medicine over the Internet, increase a patient's risk of being injured by malpractice?¹⁴

Despite these questions, the age of the Internet is here. The Internet is likely to change the practice of medicine as much as antibiotics, anesthesia, or immunizations did.¹⁵ In addition, the Internet can potentially change the physician-patient relationship because a physician can now provide health care without a face-to-face consultation.¹⁶ Through a "virtual house call," a physician has the ability to diagnose an online patient with whom he has never met and will probably never hear from again.¹⁷ Moreover, online physicians are giving advice and, if necessary, prescribing medications without traditional follow-up care. Therefore, although the Internet creates a qualitatively new type of physician-patient relationship, it is not at all clear how liability will be allotted when something goes wrong with an online consultation. Similarly, it is unclear whether traditional malpractice principles will apply to professional relationships formed outside the mode of interaction upon which present standards are based.

This Note evaluates the practice of medicine on the Internet and the paradigm shift that may occur when a court attempts to apply traditional medical malpractice principles to cybermedicine. Part I reviews traditional medical malpractice principles and examines the similar, yet separate, issue of telemedicine and the new legal theories that are presented for the establishment of a physician-patient relationship in a telemedical context. Part II presents a brief history of the Internet and discusses the rapid development of technology within medicine, explaining what cybermedicine is and how it works. Furthermore, Part II introduces the debate surrounding

¹³ See Gunther Eysenbach & Thomas L. Diepgen, *Evaluation of Cyberdocs*, 352 THE LANCET 1526 (1998), available in 1998 WL 1410621.

¹⁴ See Judy Foreman, *Health Care Online is a Tangled Web, Cyberspace is Not a Safe Place for Sensitive Medical Data*, STAR-TRIBUNE (Minneapolis-St. Paul), Jan. 24, 1999, at 6E, available in 1999 WL 7483343.

¹⁵ See *id.*

¹⁶ See *id.*

¹⁷ See Michael Stroh, *Cybermedicine: Doctors Spend More Time Online as Patients Ask for More Attention from their Physicians*, THE AUGUSTA CHRONICLE, July 1, 1999, at B1.

the benefits and dangers of diagnosing and treating patients over the Internet and explores the issue of how cybermedicine will fundamentally change the traditional physician-patient relationship. Part III discusses how a court might apply traditional malpractice principles to a cybermedicine paradigm when a cyber-patient receives substandard medical care over the Internet. In addition, Part III sets forth the challenges that will occur when a court attempts to apply traditional negligence principles to the practice of medicine on the Internet. Finally, Part IV inquires into the potential problem of conflicting state laws and standards of care that come into play when a court attempts to apply traditional malpractice principles to cybermedicine. Part IV also explores the following possible solutions to avoid a disparate body of negligence law: (1) the creation of a "virtual" national standard of care to measure the standard of care of all cyber-physicians; (2) the treatment of the practice of medicine on the Internet as a separate medical specialty, so that all cyber-physicians are measured according to a standard of care similar to medical specialists; or (3) the oversight and regulation by the federal government of the practice of medicine on the Internet.

I. LIABILITY IMPLICATIONS AND MEDICAL MALPRACTICE

Although a court has yet to address how a medical malpractice claim would be resolved when a person receives substandard medical care over the Internet, it can be expected that a court will extract cyber-malpractice rules from traditional medical malpractice principles.¹⁸ Traditional malpractice principles have already been broadened by the similar, yet separate, medical field of telemedicine. To determine whether a duty of care is owed, courts must examine how physician-patient relationships were established in other telecommunication contexts. Applying these principles to cybermedicine, however, leaves many issues undefined.

¹⁸ See Barbara J. Tyler, *Cyberdoctors: The Virtual Housecall—The Actual Practice of Medicine on the Internet is Here; Is it a Telemedical Accident Waiting To Happen?*, 31 IND. L. REV. 259, 265 (1998).

A. *The Traditional Rules of Medical Malpractice*

The pivotal issue for determining liability in a negligence action is whether a duty of care was owed to the plaintiff.¹⁹ The term "malpractice" suggests that one who has contracted to provide professional services has breached a duty of care.²⁰ To establish a *prima facie* case of medical malpractice, four elements must be satisfied: (1) a duty by the physician to act according to certain standards; (2) a breach of the applicable standard of care; (3) an injury to the patient; and (4) a causal connection between the breach of care and the patient's injury.²¹ Otherwise stated, for a physician to be liable on a theory of malpractice, a duty of care must be owed to the patient, the physician must breach the standard of care set forth by the profession, and the physician must injure the patient.²²

The existence of a legal duty of care owed to a patient flows from the physician-patient relationship.²³ In fact, a physician-patient relationship is a necessary pre-requisite to proceed with a medical malpractice claim.²⁴ It is a well-established principle that a physician-patient relationship is formed "when the professional services of a physician are accepted by another person for the purposes of medical or surgical treatment."²⁵ Ordinarily, the relationship between the physician and patient requires the consent, whether expressed or implied, of both the physician and the patient.²⁶ For example, a physician-patient relationship is established when a patient knowingly seeks the assistance of a physician and the physician knowingly agrees to provide care to the patient.²⁷ Courts

¹⁹ See *Lorencz v. Ford Motor Co.*, 483 N.W.2d 844, 846 (Mich. 1992).

²⁰ See *Weaver v. Univ. of Mich. Bd. of Regents*, 506 N.W.2d 264, 266 (Mich. 1993).

²¹ See *Ortiz v. Shah*, 905 S.W.2d 609, 610 (Tex. 1995).

²² See *id.*

²³ See *Weaver*, 506 N.W.2d at 266.

²⁴ See *id.*

²⁵ 1 STEVEN E. PEGALIS & HARVEY F. WACHSMAN, *AMERICAN LAW OF MEDICAL MALPRACTICE* 24 (2nd ed. 1992). See also *Miller v. Sullivan*, 214 A.D.2d 822, 823, 625 N.Y.S.2d 102, 103-04 (3rd Dep't 1995).

²⁶ See *Oja v. Kin*, 581 N.W.2d 739, 742 (Mich. 1998) (citing *McKinney v. Schlatter*, 692 N.E.2d 1045, 1047-48 (Ohio 1997)).

²⁷ See *Payne v. Sherrer*, 458 S.E.2d 916, 917 (Ga. 1995); *Peace v. Weisman*, 368 S.E.2d 319, 320 (Ga. 1988).

require the privity between a physician and patient because it establishes the physician's legal duty to adhere to a particular standard of care.²⁸

As one court suggested, the existence of a physician-patient relationship is an "essential element" to a medical malpractice action, and without such a duty of care owed to the patient, there is no foundation for a malpractice claim.²⁹ Depending on the jurisdiction, the issue of whether a duty is owed to a patient, subsequent to the formation of a physician-patient relationship, is either a question of law that must be decided by a court or a question of fact for a jury.³⁰

Once the physician-patient relationship is present, a patient must prove that the physician fell below a particular standard of care in the physician's specialty or practice while treating the patient.³¹ The issue of a standard of care ultimately depends on the jurisdiction where a physician is located.³² Under a "locality" standard of care, a physician is required to exercise the same degree of professional skill or knowledge employed by other physicians in the same or similar community.³³ A physician is not required to have a state-of-the-art education or level of skill, but must have as much skill as "an average member of the medical profession in good standing."³⁴ On the other hand, other jurisdictions employ a

²⁸ See *Bradley Center, Inc. v. Wessner*, 296 S.E.2d 693, 695 (Ga. 1982).

²⁹ See *Chiasera v. Employers Mut. Liab. Ins. Co.*, 101 Misc. 2d 877, 878-79, 422 N.Y.S.2d 341, 342 (1979).

³⁰ Some courts determine that the formation of a physician-patient relationship is a question of law for the court to decide on a case by case basis. See *Oja*, 581 N.W.2d at 741; *Webb v. Jarvis*, 575 N.E.2d 992, 995 (Ind. 1991). On the other hand, other jurisdictions consider the issue of whether a physician-patient relationship has been formed as a question of fact for the jury. See *Cogswell v. Chapman*, 249 A.D.2d 865, 866, 672 N.Y.S.2d 460, 462 (3rd Dep't 1998); *Bienz v. Central Suffolk Hosp.*, 163 A.D.2d 269, 270, 557 N.Y.S. 139, 140. (2nd Dep't 1990).

³¹ See generally NORMAN S. BLACKMAN & CHARLES P. BAILEY, *LIABILITY IN MEDICAL MALPRACTICE: A REFERENCE FOR PHYSICIANS* (1990).

³² There are several jurisdictions where it is unclear whether they have retained a local standard of care. See James O. Pearson, Jr., Annotation, *Modern Status of "Locality Rule" in Malpractice Action Against Physician Who is Not a Specialist*, 99 A.L.R.3d 1133, 1133 (1992) (explaining that there are thirteen jurisdictions where the status of the locality rule is unclear).

³³ See Jay M. Zitter, Annotation, *Standard of Care Owed to Patient by Medical Specialist as Determined by Local, "Like Community," State, National, or Other Standards*, 18 A.L.R.4th 603, 609 (1982).

³⁴ *Pike v. Honsinger*, 155 N.Y. 201, 202 (1898).

national standard of care that requires a physician to possess the same degree of professional skill or knowledge when compared to other physicians on a national basis.³⁵ National standards of care are typically applied to specialists, even if the state retains a version of a local standard of care for general practitioners.³⁶

Furthermore, a plaintiff must support a claim for medical malpractice by introducing expert testimony establishing that a physician has failed to conform to the requisite standard of care and has provided improper medical treatment.³⁷ In response, a physician must prove that the medical diagnosis was thorough and reasonable.³⁸

In the future, it is not entirely clear how medical malpractice liability will interplay with technology. To date, there has yet to be a case brought against a physician on the basis of cyber-malpractice.³⁹ However, as one commentator has noted, "[T]hat situation will soon change. The questions raised regarding such long distance practice range from how one can practice good medicine without percussion, auscultation, and inspection of the patient to identification of the actual patient who is signing on for the medical service provided."⁴⁰ Since the law cannot keep up with technology, it appears that courts will struggle to determine liability in a cyber-malpractice case and will apply traditional medical malpractice principles to an online physician's conduct.⁴¹

³⁵ See Pearson, *supra* note 32, at 1133.

³⁶ See *Robbins v. Footer*, 553 F.2d 123, 129 (D.C. Cir. 1977) (holding that nationally certified specialists must meet a national standard of care). Similarly, a national standard of care is applied to those physicians who are board certified. See *Riley v. Wieman*, 137 A.D.2d 309, 315, 528 N.Y.S.2d 925, 929 (3rd Dep't 1988) (holding that there is a higher duty of care on doctors with knowledge and skill that exceeds local standards).

³⁷ See *Bell v. Hart*, 516 So.2d 562, 566 (Ala. 1987).

³⁸ See BLACKMAN & BAILEY, *supra* note 31, at 45.

³⁹ See Tyler, *supra* note 18, at 282.

⁴⁰ See *id.* (quoting Jan Greene, *Sign on and Say "A-H-H-H-H-H"*, 71 HOSPS. & HEALTH NETWORKS, April 20, 1997, at 46).

⁴¹ See *Leading Cybermedicine Expert Examines Health Care on Web*, Oct. 8, 1999 (visited Jan. 5, 2000)

<<http://www.slu.edu/publications/nb/new/100899/shtml>>.

B. *The Extension of Traditional Malpractice Rules by Telemedicine*

Telemedicine has added a new dimension to the traditional health care delivery system. With the aid of technology, medical care is available to patients who are several miles or several states away from their physician.⁴² Telemedicine has also enabled distant physicians to collaborate on a patient's particular medical condition.⁴³ Despite the benefits associated with telemedicine, telemedicine has also confronted several legal and ethical obstacles.⁴⁴ Some authorities warn that traditional medical malpractice principles can be applied to the practice of telemedicine.⁴⁵ Indeed, existing case law holds that a physician-patient relationship may be established when a physician offers medical advice over the telephone.⁴⁶ This relationship places a duty on the physician to exercise reasonable care.⁴⁷

1. What is Telemedicine?

To fully understand the legal implications surrounding cybermedicine, one might find it helpful to understand the similar, yet separate, issue of telemedicine. Generally, telemedicine is defined as "the use of telecommunications to enhance the delivery of medical care by allowing a consulting physician at one location to observe a patient or data concerning the patient at another location."⁴⁸ In the past, a conversa-

⁴² See Judith F. Daar & Spencer Koerner, *Telemedicine: Legal and Practical Implications*, 19 WHITTIER L. REV. 3, 5 (1997).

⁴³ See Christopher J. Caryl, *Malpractice and Other Legal Issues Preventing the Development of Telemedicine*, 12 J.L. & HEALTH 173, 174 (1998).

⁴⁴ See *id.* Telemedicine spurred many legal questions regarding medical malpractice, the physician-patient relationship, licensing, privacy, and confidentiality in its beginning stages of development. For a discussion of these issues, see generally Christopher Guttman-McCabe, Comment, *Telemedicine's Imperilled Future? Funding, Reimbursement, Licensing, and Privacy Hurdles Face a Developing Technology*, 14 J. CONTEMP. HEALTH L. & POL'Y 161 (1997); Ranney V. Wiesemann, Note, *On-Line or On-Call? Legal and Ethical Challenges Emerging in Cybermedicine*, 43 ST. LOUIS U. L.J. 1119 (1999).

⁴⁵ See Patricia Kuszler, *Telemedicine and Integrated Health Care Delivery: Compounding Malpractice Liability*, 25 AM. J.L. & MED. 297, 308 (1999). See also Daar & Koerner, *supra* note 42, at 5; Caryl, *supra* note 43, at 174.

⁴⁶ See Kuszler, *supra* note 45, at 113.

⁴⁷ See Kuszler, *supra* note 45, at 113.

⁴⁸ Daniel McCarthy, *The Virtual Health Economy: Telemedicine and the Supply*

tion about a patient over the telephone between a physician and hospital, or physician and patient, was considered the practice of telemedicine.⁴⁹ However, today, telemedicine has expanded beyond the boundaries of the telephone and encompasses a variety of complex technological mediums that allow a physician to examine and counsel patients who are miles apart from the physician.⁵⁰

Broadly, telemedicine can be assimilated into three categories based upon the levels of complexity.⁵¹ The first category is the transmission of one-way still images by either facsimile or computer.⁵² A local physician will transmit the still image to the consulting physician, and, upon receipt, the consulting physician will follow-up with a telephone call to discuss the diagnosis or treatment options.⁵³ This form of telemedicine allows physicians to collaborate with peers on the treatment and diagnosis of a patient. The second category of telemedicine is based upon the transmission of one-way video and audio that is used primarily for educational purposes so that physicians in rural settings can keep abreast of the latest medical advances and procedures used by urban physicians and hospitals.⁵⁴ The third category of telemedicine is considered the most advanced because it involves the use of interactive teleconferencing systems.⁵⁵ Through the utilization of a two-way video and audio system, an interactive teleconference

of Primary Care Physicians in Rural America, 21 AM. J.L. & MED. 111, 113 (1995).

⁴⁹ See Leslie G. Berkowitz, *Is There A Doctor in the House? The Rise of Telemedicine*, 25 COLO. LAW. 19 (June 1996).

⁵⁰ See Caryl, *supra* note 43, at 174.

⁵¹ See McCarthy, *supra* note 48, at 113.

⁵² See *id.*

⁵³ See *id.* See also Caryl, *supra* note 43, at 174. The most common forms of still or static images include teleradiology, telepathology, and teledermatology. These images must be compressed to be transferred over fiber-optic telephone cables. See McCarthy, *supra* note 48, at 113.

⁵⁴ See McCarthy, *supra* note 48, at 113. The University of Washington has initiated a telemedicine project, called the WWAMI Rural Telemedicine Network demonstration project, which has studied the effect of telemedicine consultation by the medical school to patients and providers in six remote towns throughout five states. Consultations take place using specialized imaging software at each of the remote sites and are available on an emergency basis. See *WWAMI Rural Telemedicine Network-Welcome to the WWAMI Rural Telemedicine Network* (visited Oct. 29, 1999) <<http://www.fammed.washington.edu/telemed/intro.html>>.

⁵⁵ See McCarthy, *supra* note 48, at 113.

system can transmit the signals for electronic diagnostic equipment such as electronic stethoscopes, otoscopes, endoscopes, microscopes, electro and echo-cardiograms, and sonograms.⁵⁶

In the early 1990s, the development of high-speed, high-bandwidth telecommunication systems and the invention of devices that captured and transmitted images in digital form led to a rapid interest in telemedicine.⁵⁷ Because of the latest technology employed through telemedicine, electroencephalogram, and electrocardiogram readings can be transmitted between health care facilities and ambulances, orbital spacecrafts, and other health care related base stations.⁵⁸ In addition, included amongst the above listed "traditional" forms of telemedicine are computer e-mail,⁵⁹ robotics,⁶⁰ and the Internet.

Telemedicine has revolutionized health care delivery systems by providing access to high-tech medical care via interactive video and consultation to rural areas, prisons, and home-bound patients.⁶¹ One of the resulting benefits is lower medical costs. For instance, in terms of prison telecare, the cost of transportation to an outside medical facility averages \$700 a trip.⁶² Another advantage of telemedicine is that medi-

⁵⁶ See McCarthy, *supra* note 48, at 114. McCarthy offered a brief description of the following medical instruments: stethoscope, an instrument used to detect and study sounds produced in the body; otoscope, an instrument used for examining or listening to sounds in the ear; endoscope, an instrument used to examine the interior of a hollow organ; microscope, an instrument that provides an enlarged image; electrocardiogram ("EKG"), the graphic record of the changes of electrical potential during the heartbeat to diagnose abnormalities of heart action; echocardiogram, a visual record by use of ultrasound to examine the structure and functioning of the heart for abnormalities or disease; and sonogram, an image produced by ultrasound. See *id.* at 114 n.27.

⁵⁷ See Steven W. Strode et al., *Technical and Clinical Progress in Telemedicine*, 28 JAMA 1066, 1066-68 (1999).

⁵⁸ See Phyllis F. Granade & Jay H. Sander, M.D., *Implementing Telemedicine Nationwide: Analyzing the Legal Issues*, 3 DEF. COUNS. J. 67 (1996).

⁵⁹ For a general overview of the use of electronic e-mail in the medical setting, see Alissa R. Spielberg, *Online Without a Net: Physician-Patient Communication by Electronic Mail*, 25 AM. J.L. & MED. 267 (1999).

⁶⁰ See Derek F. Meek, *Telemedicine: How An Apple (Or Another Computer) May Bring Your Doctor Closer*, 29 CUMB. L. REV. 173, 178 (1998-1999) (citing P.G. Schulam et al., *Telesurgical Mentoring*, 11 SURGICAL ENDOSCOPY 1001 (1997)). This commentator noted that Johns Hopkins has a telesurgical mentoring program where a robotic arm manipulated a laparoscope. *Id.*

⁶¹ See Kuszler, *supra* note 45, at 302.

⁶² See Strode et al., *supra* note 57, at 1066-68 (citing D. Kewslar and D. Balch,

cal care can be extended to home-bound patients.⁶³ For example, a high-risk pregnancy patient can be monitored by her obstetrician with telemedical equipment, which also avoids the high cost of inpatient care.⁶⁴

2. New Legal Theories: The Use of the Telephone to Initiate a Physician-Patient Relationship

Like cybermedicine, no reported cases of telemedicine malpractice have yet appeared.⁶⁵ However, several commentators have discussed how a court might analyze medical malpractice issues within the field of telemedicine.⁶⁶ One commentator has suggested that there are basically two lines of case law that have analyzed the use of telecommunications to initiate a physician-patient relationship for the purposes of a malpractice action.⁶⁷ The first body of case law involves the use of a telephone between a physician and patient that results in a negligent diagnosis or treatment, while the second body of case law involves a consulting physician whose medical advice resulted or contributed to the negligent care.⁶⁸

To determine whether a physician-patient relationship has been created over the telephone, the critical inquiry surrounds

Development of a Telemedicine and Distance Learning Network in Rural Eastern North Carolina, 1 J. TELEMED TELECARE 179, 179-182 (1995).

⁶³ See *id.*

⁶⁴ See *id.*

⁶⁵ See Granade & Sander, *supra* note 58, at 67. The author has noted that all telemedicine cases have been settled prior to trial. See *id.*

⁶⁶ See *id.* at 67-74. See also *supra* notes 43-45.

⁶⁷ See Kunzler, *supra* note 45, at 308.

⁶⁸ See Kunzler, *supra* note 45, at 308. For the purposes of this paper, I will be focusing solely upon the first body of case law that discusses the use of a telephone to create a physician-patient relationship. The telephone can be analogized to the Internet because of the direct telecommunication feature of both mediums. See Kunzler, *supra* note 45, at 308. As for those telemedicine cases where a physician contacts another physician for the purposes of a consultation, it does not necessarily involve direct communication between the consulting physician and the patient. Rather, in some situations, the patient may be unaware of the consulting physician, or the relationship between the consulting physician and a patient is too tenuous for a physician-patient relationship to be created. See Kunzler, *supra* note 45, at 310. On the other hand, in other formal consultative situations, a physician-patient relationship can be created where a physician participates in the diagnosis despite the fact that the physician did not see or examine a patient. See Kunzler, *supra* note 45, at 310. However, those issues are beyond the scope of this paper.

whether a physician has provided medical or treatment advice over the telephone and whether the patient has relied upon this advice to her detriment.⁶⁹ For example, in *Bienz v. Central Suffolk Hospital*, the question on appeal was whether the physician had offered medical advice over the telephone prior to meeting the patient.⁷⁰ The New York Appellate Division affirmed the lower court's denial of summary judgment in favor of the defendant physician. It concluded that a telephone conversation could establish a physician-patient relationship for purposes of malpractice liability where the physician may have negligently provided medical or treatment advice to the patient and the patient relied upon this advice to his detriment.⁷¹ The court came to this conclusion based upon the reasoning that it was not entirely clear what type of medical advice the physician offered to the prospective patient over the telephone or what reliance the patient may have placed on this telephone conversation.⁷² Specifically, the court noted that "[w]hether the physician's giving of advice furnishes a sufficient basis upon which to conclude that an implied physician-patient relationship had arisen is ordinarily a question of fact for the jury."⁷³

Similarly, if a physician indicates over the telephone that he or she has agreed to provide treatment or care for an immediate ailment, and, as a result, the patient reasonably relies upon the information and ceases to obtain further care for the condition, a physician-patient relationship may be formed. This relationship creates a duty to provide necessary medical services.⁷⁴ In *Lyons v. Grether*,⁷⁵ the court held that "whether a physician-patient relationship is created is a question of fact, turning upon a determination of whether the patient entrusted his treatment to the physician, and whether the physician has

⁶⁹ See *Bienz*, 163 A.D.2d at 270, 557 N.Y.S.2d at 139.

⁷⁰ See *id.*

⁷¹ See *id.*

⁷² See *id.*

⁷³ *Id.* Other states conclude that the existence of a physician-patient relationship is a question of law to be determined by a court, as opposed to question of fact to be determined by a jury. See, e.g., *Hill v. Kokosky*, 463 N.W.2d 265, 266 (Mich. 1990); *Clarke v. Hoek*, 219 Cal. Rptr. 2d 845, 848 (Cal. 1985).

⁷⁴ See *Lyons v. Grether*, 239 S.E.2d 103, 105 (Va. 1977).

⁷⁵ See *id.*

accepted the case.⁷⁶ In *Lyons*, while the court acknowledged that the scheduling of an appointment alone would be insufficient to establish a physician-patient relationship, the court explained that the scheduling of an appointment with a specialist for a specific condition could have amounted to a consensual transaction creating a physician-patient relationship and a duty on the part of the physician to perform the medical services contemplated.⁷⁷

On the other hand, in *Weaver v. University of Michigan Board of Regents*,⁷⁸ the court held that a telephone call to request or schedule an appointment with a physician does not necessarily result in the formation of a physician-patient relationship. The court in *Weaver* reasoned that a telephone call to schedule an appointment with a physician did not establish a physician-patient relationship because the caller did not have an on-going relationship with the physician and the patient did not obtain medical advice during the conversation.⁷⁹ Moreover, it explained that a physician-patient relationship cannot be established where a patient did not reasonably rely upon the medical advice given over the telephone.⁸⁰ Thus, the court in *Weaver* intimated that in order for a malpractice action to proceed against a physician, medical advice or treatment must be rendered directly over the telephone to a patient.

In addition, a physician-patient relationship may be precluded by a unilateral action on behalf of the patient.⁸¹ In *Miller v. Sullivan*, the court articulated the principles set forth

⁷⁶ *Id.*

⁷⁷ *See id.*

⁷⁸ *See Weaver*, 506 N.W.2d at 266.

⁷⁹ *See id.*

⁸⁰ *See id.* at 267. *See also* *Clanton v. Von Haam*, 340 S.E.2d 627, 628 (Ga. 1986). In *Clanton*, a patient who was experiencing back problems telephoned a doctor, who listened to her describe her symptoms over the phone. *See id.* The doctor refused to immediately treat the patient and instead told the patient to continue the immediate course of treatment prescribed by another physician and that "she would have to wait to see him in the morning." *Id.* As a result, the patient suffered permanent paralysis. The court held that while one might interpret this conversation as one where the physician knowingly accepts the patient to create a consensual contract that establishes a legal duty, the plaintiff in this case had not relied upon the medical advice given over the telephone because the patient had interpreted the conversation as a refusal to see her. *See id.* at 629. In addition, the plaintiff was not dissuaded from seeking medical attention from another physician. *See id.* at 629-30.

⁸¹ *See Miller*, 214 A.D.2d at 822, 625 N.Y.S.2d at 103.

in *Bienz* and *Weaver*, but emphasized the requirement of reliance. Specifically, the court acknowledged that inaccurate medical advice provided over the telephone could create a physician-patient relationship for the purposes of a malpractice action if the following three elements were present: (1) the physician affirmatively advises the patient regarding a particular course of treatment; (2) it was foreseeable that the prospective patient would rely upon the advice; and (3) the prospective patient in fact relies upon this advice.⁸² However, in this case, the court found that a physician-patient relationship was not created because the prospective patient, who was suffering from symptoms of a heart attack, did not follow the accurate medical advice given over the telephone to "come to [the doctor's] office 'right away.'"⁸³ Rather, the prospective patient waited until mid-day to visit the physician, and he suffered a fatal heart attack in the waiting room.⁸⁴ Since the prospective patient chose to pursue a different course of action, as opposed to following the physician's recommended course of treatment, the court found that no physician-patient relationship was established.⁸⁵

Based upon the case law, several factors must be present to create a physician-patient relationship based upon a telephone conversation. A consensual relationship must exist where the physician must agree, expressly or implicitly, to provide health care services.⁸⁶ The conversation must affirmatively advise the patient as to a particular course of treatment.⁸⁷ Finally, the patient must rely upon the treatment or medical advice provided over the telephone to her detriment.⁸⁸ If the telephone call provided inaccurate advice or a false reassurance to the patient, and, as a result, the patient suffered an injury, the patient may have a viable negligence action against the physician.⁸⁹

⁸² See *id.*

⁸³ *Id.* at 823, 625 N.Y.S.2d at 104.

⁸⁴ See *id.*

⁸⁵ See *id.*

⁸⁶ See *McKinney v. Schlatter*, 692 N.E.2d 1045, 1048 (Ohio 1997).

⁸⁷ See *Weaver*, 506 N.W.2d at 266-67.

⁸⁸ See *Clanton*, 340 S.E.2d at 629-30.

⁸⁹ See generally Alissa R. Spielberg, *On Call and Online: Sociohistorical, Legal and Ethical Implications of E-mail for the Patient-Physician Relationship*, 280 JAMA 1353 (1998).

II. THE INTERNET AND CYBERMEDECINE

A. *A Brief History of the Internet and the Unprecedented Growth of Telecommunications*

The Internet is an entirely new communication medium in the twenty-first century, just as radio and television were new media in the twentieth century.⁹⁰ However, unlike broadcast media, the Internet does not have the expense of buying and maintaining costly transmitting devices, and, unlike the print media, there is no need for a printing press or photocopy machine.⁹¹ Due to the unprecedented growth of computer-based communications, terms such as "email," "World Wide Web," and "cyberspace" have become commonplace.⁹²

Initially, what eventually became known as the "Internet" was first formed as part of a governmental defense project to monitor defense-related research.⁹³ United States military planners wanted to create a decentralized communication network because a centralized network control system would be the immediate target in the event of a nuclear assault.⁹⁴ With this fear in mind, a decentralized network of interconnecting computers, called the Advanced Research Projects Agency Network ("ARPANET"), was formed.⁹⁵ This network consisted of numerous stand alone computers or nodes, each connected to a neighboring node, which allowed for the transmission of electronic messages.⁹⁶ The backbone of this network was a standardized protocol system called the Transmission Control Protocol/Internet Protocol ("TCP/IP"). The TCP/IP standard allowed large packets of information, each separately addressed, to be sent from one computer to another, passing through intermediary series of computer networks.⁹⁷

⁹⁰ See Robert Craig Waters, *An Internet Primer*, 44 FED. LAW. 33 (1997). This Section provides only a brief historical overview of the Internet. For a more comprehensive review of the Internet, see generally APRIL MARINE ET AL., *INTERNET: GETTING STARTED* (1994); Bruce Sterling, *A Short History of the Internet* (visited Oct. 25, 1999) <<http://www.forthnet.gr/forthnet/isoc/short.history.of.internet>>.

⁹¹ See Waters, *supra* note 90, at 33.

⁹² See *The Herring Tech* 250, RED HERRING, Apr. 1998, at 130, 131-33.

⁹³ See MARINE ET AL., *supra* note 90, at 139.

⁹⁴ See Sterling, *supra* note 90.

⁹⁵ See Sterling, *supra* note 90.

⁹⁶ See Sterling, *supra* note 90.

⁹⁷ See Sterling, *supra* note 90; see also WARNER V. SLACK, M.D.,

However, in the early 1980s, due to the unexpected growth of networking devices, the Pentagon found itself unable to regulate its own Cold War "military" communications system.⁹⁸ As a result, the National Science Foundation replaced the Department of Defense as the principal source of funding and endorsed a national computer network system ("NSFNet") that evolved into what is now called the Internet.⁹⁹ The significance of this computer network system was that it linked all of the smaller networks of computers in government departments together with major universities and national research centers.¹⁰⁰ Shortly thereafter, individual users who had a computer, modem, and telephone line were gaining access to the network.¹⁰¹ Today, one can easily access the Internet at inexpensive prices, depending on the Internet service provider.¹⁰²

For many years, the Internet remained relatively unknown and was used primarily by universities and the United States Government. However, the popularity of the Internet quickly expanded and millions of private citizens now have access to the Internet.¹⁰³ Further compounding the notoriety of the Internet was the development of the World Wide Web (the "WWW" or the "Web"). The WWW has been characterized as more "user friendly" because of its new easy-to-use interface, and it enables its users to create their own web sites by posting an array of various text, graphics, sound, full-motion ani-

CYBERMEDICINE: HOW COMPUTING EMPOWERS DOCTORS AND PATIENTS FOR BETTER HEALTH CARE ch. 3 (1997) [hereinafter CYBERMEDICINE].

⁹⁸ See Waters, *supra* note 90, at 36. Of particular concern was that entities were gaining access to the network without the Pentagon's permission, and discussions of music lyrics were flowing over the same lines that had once carried military secrets. See Waters, *supra* note 90, at 36.

⁹⁹ See Waters, *supra* note 90, at 36.

¹⁰⁰ See Waters, *supra* note 90, at 36. For additional sources regarding the history of the Internet, see generally DANIEL C. LYNCH & MARSHALL T. ROSE EDS., INTERNET SYSTEM HANDBOOK chs. 1-3 (1993); ED KROL, THE WHOLE INTERNET 13-34 (1992); Barry M. Leiner et al., *Internet Society (ISOC) All About the Internet: A Brief History of the Internet* (visited Oct. 23, 1999) <<http://www.isoc.org/internet-history/brief.html>>.

¹⁰¹ See Waters, *supra* note 90, at 36.

¹⁰² See SLACK, *supra* note 97, at 70-71. For example, Compuserve, Prodigy, and American Online offer a variety of services at varying rates of use, the lowest of which can be anywhere between \$15 per month and can increase towards the range of \$15 per hour. See SLACK, *supra* note 97, at 70-71.

¹⁰³ See SLACK, *supra* note 97, at 70-71.

mation, and video.¹⁰⁴ Similarly, the more recent development of "browser" software, such as Netscape Navigator or Internet Explorer, has helped users navigate the WWW by providing hypertext links, which allow one to easily "jump" between numerous sites on the Web.¹⁰⁵ Furthermore, an incredible amount of information can be located on the Internet through the use of a "search engine," which allows a person to explore a tremendous amount of information by simply typing in a series of words that represent one's topic of interest.¹⁰⁶

Recognizing that the Internet has allowed the general public to quickly and inexpensively access a wealth of information in the comfort of a living room, it is no coincidence that the Internet has grown at a staggering pace. Although the exact usage of computers may be difficult to estimate, it has been suggested that in the United States alone, there are approximately 66 million Internet users, 50 million of whom have used the Web.¹⁰⁷ That figure was projected to grow to 200 million by the year 1999.¹⁰⁸

B. *Cybermedicine: Is This the Future of Medical Care?*

The Internet has revolutionized the way our society obtains new products and information. E-commerce has rapidly flourished, and it is no coincidence that, to date, television channels frequently advertise "dot com" commercials, where a consumer can purchase anything from a new car or cheap plane ticket to a rare autographed Robert Frost compilation from the comfort of her living room.¹⁰⁹ The Internet has be-

¹⁰⁴ See Daniel W. McDonald et al., *Intellectual Property and Privacy Issues on the Internet*, 79 J. PAT. & TRADEMARK OFF. SOC'Y 31, 33 (1997).

¹⁰⁵ See generally ROBERT H. REID, *ARCHITECTS OF THE WEB: 1,000 DAYS THAT BUILT THE FUTURE OF BUSINESS* 7 (1997). See also Sterling, *supra* note 90.

¹⁰⁶ See REID, *supra* note 105, at 7. A short list of some popular search engines include Hotbot <<http://www.hotbot.com>>, Askjeeves <<http://www.askjeeves.com>>, Altavista <<http://www.altavista.com>>, Excite <<http://www.excite.com>> and Yahoo <<http://www.yahoo.com>>.

¹⁰⁷ *The Charts, Yahoo!*, INTERNET LIFE 36 (1998).

¹⁰⁸ See MARINE ET AL., *supra* note 90, at 139-142.

¹⁰⁹ Web sites such as <<http://www.carorder.com>> allow a consumer to purchase an automobile over the Internet that is delivered right to the consumer's home, <<http://www.cheaptickets.com>> allows a consumer to find a low airfare, and <<http://www.ebay.com>> is a virtual auction house where thousands of items are auctioned for sale by consumers.

come the "world's largest library, shopping mall, business market, museum, university, health information provider, and entertainment vehicle."¹¹⁰ This is an incredible leap from the past, where only twenty years ago, the president of Digital Equipment Corporation was quoted as stating that "there is no reason anyone would want a computer in their home."¹¹¹

One of the fastest growing areas on the Internet are web sites devoted to health care, and there are enormous possibilities for Internet entrepreneurs to take advantage of this burgeoning demand. Currently, there are an estimated 100,000 medical and health-related web sites on the Internet,¹¹² and it has been estimated that "42 percent of the total [Web] users access medical information on-line at least once a month."¹¹³ With the help of the Internet, consumers are taking charge to improve their own health by researching specific types of cancers and diseases, accessing support groups, e-mailing their doctors, obtaining prescriptions, or receiving online medical care.

On the other hand, despite this growth, physicians who understand the Internet's effect on health care are still hesitant to utilize the Internet because of its potential liability implications and the dangerous shift away from the traditional doctor-patient relationship.¹¹⁴ The pervasiveness of the Internet will create new legal challenges for physicians practicing medicine online, and, depending on the circumstances, virtual consultations may pose a real risk for cyber-physicians.

¹¹⁰ See Gunther Eysenbach, *Rating Information on the Internet Can Empower Users to Make Informed Decisions*, 319 BRIT. MED. J. 385, 385 (1999) [hereinafter Eysenbach, *Rating Information*].

¹¹¹ See Next Generation Internet Initiative (visited Jan. 3, 2000) <<http://www.ngi.gov/talks/howell-09Apr98/slide02.html>>.

¹¹² See Gunther Eysenbach et al., *Shopping Around the Internet Today and Tomorrow: Towards the Millennium of Cybermedicine*, 319 BRIT. MED. J. 1924 (1999) [hereinafter Eysenbach, *Shopping Around*].

¹¹³ *Cybermedicine—A Wealth of Information on the Internet*, MEDICAL UPDATE, July 1, 1999, available in 1999 WL 11977371.

¹¹⁴ See Foreman, *supra* note 14, at 6E.

1. What Cybermedicine Is and How it Works

As one commentator has explained, "[C]ybermedicine includes marketing, relationship creation, advice, prescribing and selling drugs and devices, and as with all things in cyberspace, levels of interactivity as yet unknown."¹¹⁵ Another scholar has defined cybermedicine as "medicine in cyberspace: the science of applying Internet and global networking technologies to medicine and public health, of studying the impact and implications of the Internet, and of evaluating opportunities and the challenges for health care."¹¹⁶

Online medical services have been described as the "next transformation" in health care.¹¹⁷ Technology has created what is known as the "information age" in medicine, and, as a result, information available on medical web sites has grown at an exponential rate.¹¹⁸ In fact, information related to health and medicine is one of the most retrieved types of information on the Internet.¹¹⁹ Similarly, increasing numbers of physicians are starting to practice medicine on the Internet.¹²⁰ The current phenomena is for physicians, who once carried beepers because they were on-call for their office patients, to now be on-call for those Internet patients who sign on to their medical web site.¹²¹ Today, a patient neither has to wait two weeks for an appointment with a physician nor wait endless hours in the physician's office reading last year's issues of *Time* magazine. Instead, a patient can now sit down in front of a computer and, with a few computer strokes, can visit a virtual medical office from anywhere in the world to receive expeditious online medical treatment from a "cyber-physician."

The first interactive "virtual" medical office to appear on the Internet was CyberDocs, Inc ("Cyberdocs").¹²² CyberDocs

¹¹⁵ Nicholas Terry, *Cyber-Malpractice: Legal Exposure for Cybermedicine*, 25 AM. J.L. & MED. 327 (1999) (quoting Barbara J. Tyler, *Cyberdoctors: The Virtual House-Call—Actual Practice of Medicine on the Internet is Here; Is it a Telemedical Accident Waiting to Happen?*, 31 IND. L. REV. 259 (1998)).

¹¹⁶ Eysenbach, *Shopping Around*, *supra* note 112, at 1925.

¹¹⁷ Jerome P. Kassirer M.D., *The Next Transformation in the Delivery of Health Care*, 332 NEW ENG. J. MED. 52, 52-54 (1995).

¹¹⁸ Eysenbach, *Shopping Around*, *supra* note 112, at 1294.

¹¹⁹ *See id.*

¹²⁰ *See* Tyler, *supra* note 18, at 261.

¹²¹ *See id.*

¹²² *See Cyberdocs: CyberDocs Today Announced the First Virtual Doctors Office*

was co-founded in 1996 by three emergency-medicine specialists: Tom Caffrey, Steve Kohler, and Kerry Archer.¹²³ It was established in response to the problem of patients being turned away from emergency rooms when their family doctors were unavailable.¹²⁴

A CyberDoc can be contacted for a virtual house call twenty-four hours a day, seven days a week, from anywhere in the world.¹²⁵ One can go online and chat "live" with a CyberDoc, by either video-conferencing or by keyboard "chat," and obtain "acute medical consultations, second opinions, care for minor medical illnesses, medical referrals, worknotes and emergency refills of prescriptions."¹²⁶ Moreover, there is a broad span of specialties that range from orthopedics and gynecology to neurology and psychiatry.¹²⁷ Prices for an online consultation range according to specialty.¹²⁸ However, none of the cyber-consultations offered by CyberDocs are covered by health insurance.¹²⁹ Currently, CyberDocs conducts, on average, 20 to 30 consultations a week, with about 90% of these consultations resulting in a request for a prescription drug.¹³⁰

The CyberDocs web site is particularly user-friendly. The potential cyber-patient is led through a series of steps before he engages in a cyber-consultation. Prior to going online with a CyberDoc, the user must first decide whether she desires an immediate medical consultation from one of the emergency

on the World Wide Web, M2 PRESSWIRE, Oct. 4, 1996, available in 1996 WL 11276562. See also Cyberdocs.com (visited Oct. 20, 1999) <<https://www.cyberdocs.com>>.

¹²³ See Marissa Melton, *Online Diagnoses—Finding More than a Doc-in-the-Box* (visited Oct. 20, 1999) <https://www.cyberdocs.com/mediapress/usnews_062199.htm>.

¹²⁴ See *id.*

¹²⁵ See *id.*

¹²⁶ *Id.*

¹²⁷ For a complete list of the types of cyber-doctors, see Cyberdocs.com (visited Oct. 20, 1999) <<https://www.cyberdocs.com/housecall/selectspecialtygroup2.asp>>. CyberDocs has cyber-doctors in internal medicine, orthopedics, obstetrics/gynecology, psychiatry, family practice/general medicine, neurology, urology, otolaryngology, pediatrics, dentistry/periodontics, and weight-loss medicine. See *id.*

¹²⁸ See Marissa Melton, *Online Diagnoses—Finding More than a Doc-in-the-Box* (visited Oct. 20, 1999) <https://www.cyberdocs.com/mediapress/usnews_062199.htm>.

¹²⁹ See *id.* A consultation from a cyber-psychologist and neurologist costs \$100, while a cyber-consultation from a general practitioner costs \$50. See *id.*

¹³⁰ See generally Zitner, *supra* note 8.

medicine physicians or simply an appointment with a cyber-doctor.¹³¹ The cyber-patient must then choose a specific area of medicine, and, ultimately, the cyber-patient must choose which CyberDoc to visit.¹³² Thereafter, the user submits her credit card number and proceeds to fill out a medical questionnaire of her past medical history and a description of the problem.¹³³ The cyber-patient is then brought to an "exam room" to be joined by a CyberDoc for a "live" doctor-patient medical session.¹³⁴ At the conclusion of the virtual consultation, the cyber-patient is provided with detailed discharge instructions that the patient can print out from her computer.¹³⁵

For concerns regarding patient confidentiality, all of the patient's medical data is fully encrypted to ensure confidentiality.¹³⁶ In addition, the user can perform a background check to confirm the quality of a particular CyberDoc by visiting the Professional Credentials page, where the user can browse through the CyberDoc's professional credentials and view the CyberDoc's diplomas and certificates.¹³⁷ Of particular interest is that CyberDocs recognizes its inability to perform a physical examination over the Internet, and it expressly states that its service should not be considered a substitute for conventional medical care.¹³⁸ Furthermore, CyberDocs does not require follow-up care from the specific CyberDoc who performs the online consultation, but rather, a cyber-patient is expected to receive a timely medical follow-up with a "real time" physician.¹³⁹ Finally, to circumvent the problems of state licensing

¹³¹ See Cyberdocs.com (visited Oct. 20, 1999) <<https://www.cyberdocs.com/howitworks.htm>>.

¹³² See *id.*

¹³³ See Cyberdocs.com (visited Oct. 20, 1999) <<http://www.cyberdocs.com/fees.htm>>.

¹³⁴ See Cyberdocs.com (visited Oct. 20, 1999) <<http://www.cyberdocs.com/howitworks.htm>>.

¹³⁵ See *id.*

¹³⁶ See Cyberdocs.com (visited Oct. 20, 1999) <<http://www.cyberdocs.com/faq/htm>>.

¹³⁷ See *id.*

¹³⁸ See Jan Greene, *Sign On and Say "A-H-H-H-H"*, 71 HOSPITALS & HEALTH NETWORKS, Apr. 20, at 45-46. Realistically, it is impossible to enforce the requirement that a cyber-patient obtain a "timely medical follow-up" with a "real time" physician.

¹³⁹ See Marissa Melton, *Online Diagnoses—Finding More than a Doc-in-a-Box* (visited Oct. 20, 1999) <http://www.cyberdocs.com/mediapress/usnews_062199.htm>. If a repeat patient signs on again for a return visit, the patient will first be asked

laws, a CyberDoc can only accept patients who are physically in the state in which the CyberDoc practices medicine or who reside outside the United States.¹⁴⁰

2. Other Medical Web Sites

Similar to Cyberdocs.com, there are other medical web sites that provide counseling or medical services. For example, Concernedcounseling.com is a service that provides online counseling to patients through the use of Internet "chatrooms" focusing on topics ranging from marital conflict, eating disorders and drug or alcohol abuse.¹⁴¹ The initial cost for 30 minutes of online counseling is \$45 and increases to \$80 for 45 minutes.¹⁴² If the counseling session extends past 45 minutes, an additional \$25 is charged in 15 minute increments.¹⁴³ Although Concernedcounseling.com purports that its counselors are licensed, specific details regarding their academic credentials are not provided.

There are other health oriented web sites that are devoted specifically to disease management. For example, for \$19.95 a month, online services like DiabetesWell.com or LifeMasters.com allow diabetics and cardiac patients to monitor their health by entering their vital signs or blood glucose data on their own personal, password-protected Web pages.¹⁴⁴ Medical providers keep track of the patient's virtual medical chart.¹⁴⁵ One of the purported benefits behind these online

if he has in fact obtained a follow-up visit from a "real time" physician. *See id.*

¹⁴⁰ *See* Tyler, *supra* note 18, at 284. *See also* Cyberdocs.com (visited Oct. 20, 1999) <<http://www.Cyberdocs.com>>. It is unclear how this rule is enforced other than as part of the Cyberdocs.com registration process, where the potential cyber-patient must specify the state where he resides before proceeding. After indicating a geographic origin, the cyber-patient is then shown which CyberDocs are available to provide medical services, and their respective professional fees for an online consultation. *See id.*

¹⁴¹ *See* ConcernedCounseling.com (visited Dec. 28, 1999) <<http://www.concernedcounseling.com>>. It should be noted that a prospective patient must agree to limitations on liability, warranty, indemnification, and online conduct. *See id.*

¹⁴² *See* ConcernedCounseling.com (visited Dec. 28, 1999) <<http://concernedcounseling.com/ccionlinep1.htm>>.

¹⁴³ *See id.*

¹⁴⁴ *See* Martha Slud, *Is the Web Doctor In?* (visited Jan. 5, 2000) <http://cnfn.com/1999/11/01/life/online_health_treatment>.

¹⁴⁵ *See id.*

services is to "increase patient compliance with doctors' orders as well as prevent complications and reduce costly emergency room visits."¹⁴⁶

Moreover, efforts are currently underway to create a "virtual clinic" in Seattle, Washington.¹⁴⁷ The proposed plan will allow physicians from Overlake Hospital Medical Center in Seattle to "virtually treat" 15,000 local Microsoft employees.¹⁴⁸ Not only will physicians and patients be able to "see, hear, and converse [with] each other through computers and video cameras, but physicians will be able to call up computer images, for example, of an anatomical drawing of a back, and have the patient show exactly where it hurts."¹⁴⁹ Bill Crounse, a general family practitioner and vice-president of Overlake Medical Center, states that while the "virtual clinic" should not be used for major illnesses, it can be used to treat minor illnesses, such as back pain or sinusitis.¹⁵⁰ Dr. Crounse articulated that one of the potential benefits of the "virtual clinic" is a reduction in the overall number of visits to a primary-care office because a physician can simply e-mail a prescription to an online pharmacy, which can deliver the prescription directly to the patient.¹⁵¹

In addition to the existence of online consultation web sites, there are also companies on the Internet that help physicians create their own web sites to facilitate the transition from a traditional physician into that of a cyber-physician. In particular, Salu.net is the nation's largest provider of Internet services for independent physicians.¹⁵² Salu.net was established in 1997 and is dedicated to helping independent physicians market their practice and communicate with patients by offering a comprehensive package of Internet services, including medical web sites, medical e-mail, and other related intra-net services.¹⁵³ Since Salu.net is speciality specific, it

¹⁴⁶ *Id.*

¹⁴⁷ See Jon Ferry, *Virtual Doctors on the Horizon in Seattle*, 354 THE LANCET 926, 926 (1999).

¹⁴⁸ See *id.*

¹⁴⁹ *Id.*

¹⁵⁰ See *id.*

¹⁵¹ See *id.*

¹⁵² See Salu.net (visited Oct. 28, 1999) <<http://www.salu.net>>.

¹⁵³ See Salu.net (visited Oct. 28, 1999) <<http://www.salu.net/about/about.html>>. See also Wiesemann, *supra* note 44, at 1143.

allows physicians to determine what factors they deem most important for their patients and practice. Salu.net "has a total commitment to helping physicians improve their communications with their patients. Patients want more information, quicker answers, faster attention to billing and claims issues, and a personal connection to their doctors and the doctors' staff."¹⁵⁴ To date, there are approximately 13,800 physicians who have become members of Salu.net and utilized its services.¹⁵⁵

In the vastness of cyberspace, web-based medical care is quite lucrative. For example, one doctor is currently seeking to raise \$5 million through investments to expand his cybermedicine into a worldwide franchise.¹⁵⁶ Similarly, Dr. C. Everett Koop, a former United States Surgeon General, became an Internet millionaire when his web site, DrKoop.com, went public in 1999.¹⁵⁷ Ultimately, more and more doctors will become venture capitalists, as they perceive the various possibilities arising out of the rapid expansion of technology. However, since the legal issues have yet to be resolved within the burgeoning area of online medicine, a cyber-physician should proceed with caution. Traditional medical malpractice principles could apply to substandard medical care administered over the Internet.

3. The Benefits and Dangers of Cybermedicine

Within the fields of health-care and law, there has been considerable debate over the efficacy of the practice of cybermedicine.¹⁵⁸ Proponents argue that cybermedicine can be beneficial for a variety of reasons. With a few clicks of a mouse or strokes on a computer keyboard, one can effortlessly run the gamut of a number of medical web sites ranging from allergies to kidney stones, from discussion groups about heart

¹⁵⁴ Salu.net (visited Oct. 28, 1999) <<http://www.salu.net>>.

¹⁵⁵ See Salu.net (visited Oct. 28, 1999) <<http://secure.salu.net/register/>>.

¹⁵⁶ See Chris Barton, *Cyber Practice Takes Health Into the Home*, NEW ZEALAND HERALD, May 25, 1999, available in 1999 WL 5771151.

¹⁵⁷ See Sheryl Gay Stolberg, *Need a Doctor in a Hurry? How About MD.com?*, N.Y. TIMES ON THE WEB, July 4, 1999 (visited Oct. 20, 1999) <http://www.cyberdocs.com/mediapress/nytimes_070499.htm>.

¹⁵⁸ See Ronald Pies, *Cybermedicine*, 339 NEW ENG. J. MED. 638, 638 (1998).

surgery to diabetes, and even other related sites about eating disorders, ear infections, and cancer.¹⁵⁹ Cybermedicine is particularly beneficial for those persons who may not have immediate access to medical care because they do not have health insurance, are away on business or vacation, or live in a geographic area where immediate physician consultations are inaccessible.¹⁶⁰ A potential cyber-patient can contact a cyber-physician twenty-four hours a day, seven days a week, so long as the patient has access to the Internet.

While the abundance of information available on the Internet might appear bewildering, the possibilities are endless. In CYBERMEDICINE, Warner V. Slack, M.D. observed that the Internet has fostered a movement towards empowering the patient by enabling the computer to be used as a "patient's assistant," where the patient can easily access medical information and participate in making his own clinical decisions.¹⁶¹ Moreover, Slack articulated that the Internet has become the equivalent of a library and has allowed those persons diagnosed with a disease to obtain innumerable amounts of information pertaining to their specific problem, or seek comfort in a virtual chat room by discussing their concerns with an empathetic listener.¹⁶² The current phenomena for obtaining medical information on the Internet has become dramatically significant. In 1998, it was estimated that approximately 17 million Americans went online for medical information, and that this figure would increase to 30 million by 1999.¹⁶³ Thus, the old paradigm in which a physician was the primary source of medical information has become an image of the past.¹⁶⁴

¹⁵⁹ For a good source of over 2,500 Internet web sites for consumers, patients, and their families, arranged in alphabetical order by subject and topic, see generally THE ANNUAL CONSUMER'S GUIDE TO HEALTH & MEDICINE ON THE INTERNET (James B. Davis ed., 2000).

¹⁶⁰ See generally SLACK, *supra* note 97; see also Tyler, *supra* note 18, at 261.

¹⁶¹ See SLACK, *supra* note 97, at chs. 3-5.

¹⁶² See SLACK, *supra* note 97, at chs. 3-5.

¹⁶³ See Thomas E. Miller & Scott Reents, *The Health Care Industry in Transition: The Online Mandate to Change* (visited Dec. 29, 1999)

<http://www.cyberdialogue.com/free_data/white_papers/intel_health_day.html>.

This study was conducted by Cyber Dialogue, a company that tracks Internet commerce. See *id.*

¹⁶⁴ See Arnold J. Rosoff, *Informed Consent in the Electronic Age*, 25 AM. J.L. & MED. 367, 370 (1999).

Another reason for the popularity of cybermedicine is the fragmentation of managed care. One of the shortcomings of managed care is that the frequency of a face-to-face interaction between a physician and patient has become more attenuated.¹⁶⁵ Similarly, all too often one reads news stories in which patients are arbitrarily denied necessary medical treatments or a person can personally relate to the phrase "not covered" under the terms of one's health-care plan. This is the age in which house calls are non-existent, the average office visit is less than ten minutes, and HMO's penalize physicians for sending too many patients to a specialist.¹⁶⁶ Not surprisingly, a physician may not have the time to answer a patient's innumerable questions regarding her health. In response, a growing dissatisfaction and distrust has erupted. According to one study, it is estimated that 61% of the American public are "frustrated and angry" about the current status of the health-care system.¹⁶⁷

Recognizing the limitations placed by managed care, the Internet allows physicians to engage in the practice of medicine on a network without the interference from health care providers.¹⁶⁸ Indeed, it has allowed those persons who might be too embarrassed about their medical condition to inquire about treatments and seek advice from an online physician, as opposed to discussing their problem one-on-one with their primary care physician.¹⁶⁹

In addition, cybermedicine might further enhance the possibility of preventive medicine. A cyber-physician could detect health related disease and instruct the cyber-patient to

¹⁶⁵ See *id.*

¹⁶⁶ See Marc Fisher, *The Doctor is Out; When Illness Struck, He Plunged Into the New Medical Reality and Discovered that the Line Between the Patient and Physician is Gone*, THE WASHINGTON POST, July 19, 1998 at W08, available in 1998 WL 11592666.

¹⁶⁷ Geoffrey Cowley & Bill Turque, *Critical Condition*, NEWSWEEK, Nov. 8, 1999, at 58-68. This poll was conducted on behalf of the Discovery Health Channel and Newsweek to survey the public's growing dissatisfaction of our health care system. See *id.* The cover of Newsweek was poignantly titled *HMO Hell*.

¹⁶⁸ See Tyler, *supra* note 18, at 289.

¹⁶⁹ See Diane Jennings, *Bitter Pill to Swallow 'Cybermedicine' Simplicity has Fans but Raises Concerns*, THE DALLAS MORNING NEWS, Nov. 6, 1998 at 1A, available in 1998 WL 13115812. In this article, the author articulates that men who are uncomfortable discussing their sexual dysfunctions can go on-line to seek a prescription for Viagra without the embarrassment of an office visit. See *id.*

receive emergency medical care.¹⁷⁰ Or, in the alternative, those web sites devoted to individualized disease management could reduce expensive and unnecessary emergency room visits by promoting compliance with a patient's particular disease regimen.¹⁷¹

More importantly, the Internet may act as a surrogate health care provider for those persons who do not have health insurance. A recent report from the Census Bureau stated that 44.3 million Americans are without any health insurance, a figure that constitutes a stunning 16% of the population.¹⁷² The absence of health insurance is an epidemic amongst a broad range of persons, including employees who are independent contractors, young professionals who do not wish to expend the extra monthly expense, or recent graduates who have been bumped off of their parent's health care plans. With the rising costs of health care, the Internet allows an uninsured person to search for medical information or advice from an Internet physician either through a person's own personal computer or, in the alternative, to gain access through a library or Internet café. In turn, the Internet could facilitate the early detection or management of disease and ill-health.¹⁷³

Despite cybermedicine's potential benefits, it has encountered a fierce resistance in the medical community. Opponents to cybermedicine argue that it is clinically dangerous because a

¹⁷⁰ See Leslie Versweyeld, *Parkway Holdings Surfs Into Cybermedicine to Assist People in Managing Their Own Health*, July 28, 1999 (visited Jan. 6, 2000) <<http://www.hoise.com/vmw/99/articles/vmw/LV-VM-09-99-17.html>>. Parkway Holdings Ltd. has introduced a new telecommunications-based health care service in Singapore called "c-Med," which is focused on helping people improve their health through technology as the world moves into the twenty-first century. See *id.* c-Med is both a virtual medical and health monitoring system, so that patients can better manage their lifestyles by "focusing on prevention and early detection," while at the same time reduce the number of hospital admissions. *Id.* For example, a c-Med patient with a cardiac problem can access a team of professionals around the clock, or an elderly c-Med patient can have medical attention on an "as required" or an "on-call" basis, and the virtual medical center has a quick response time for any inquiries or calls for assistance. See *id.*

¹⁷¹ See Martha Slud, *Is the Web Doctor In?* (visited Jan. 5, 2000) <http://cnfnf.com/1999/11/01/life/online_health_treatment>. Especially as the number of elderly people increases in our society, it can be anticipated that this form of online medical care will flourish.

¹⁷² See Robert J. Samuelson, *Myths of the Uninsured*, NEWSWEEK, Nov. 8, 1999, at 73.

¹⁷³ See Barton, *supra* note 156.

cyber-physician cannot see, touch, or smell the patient.¹⁷⁴ As one commentator noted, even Hippocrates was quoted as stating that a "[m]edical diagnosis is always difficult and the effects of treatment always uncertain."¹⁷⁵ If misdiagnosis occurs when a physician is evaluating a patient in person, the possibilities of misdiagnoses or the inability to observe certain signs and symptoms are significantly increased when the physician is assessing someone over cyberspace. The Internet does not provide an online physician with an opportunity to observe first-hand signs and symptoms that may go undetected by the patient, but that might be obvious to the physician evaluating the patient in person.¹⁷⁶ Dr. Herbert Rakatansky, the chair of the Council on Ethical and Judicial Affairs for the American Medical Association (the "AMA"), expressed that it is too difficult for a cyber-physician to obtain all the necessary information without actually meeting the patient in person and performing a physical examination.¹⁷⁷ While a detailed questionnaire might be adequate in some situations, it is no replacement for a physical examination.¹⁷⁸

Without a face-to-face examination, it seems that the possibility of misdiagnoses is greater. For example, in one study, two researchers posed as fictitious patients and submitted a medical question regarding a dermatological problem to fifty-eight physicians who were associated with a specific medical

¹⁷⁴ See Tyler, *supra* note 18, at 283.

¹⁷⁵ BLACKMAN & BAILEY, *supra* note 31, at 299 (citing 2 APHORISMS OF HIPPOCRATES, SIGERIST, H.E.: A HISTORY OF MEDICINE (1961)).

¹⁷⁶ See Pies, *Cybermedicine*, *supra* note 158, at 638.

¹⁷⁷ See Ramirez, *supra* note 10, at A01.

¹⁷⁸ See *id.*

web site.¹⁷⁹ Of those online practitioners who responded, only fifty-nine percent conveyed the correct diagnosis.¹⁸⁰

As one author has noted, another potential danger associated with cybermedicine is that a patient with an addiction might appear quite reasonable when requesting medication, and therefore the cyber-physician would be unable to observe any obvious warning signs of substance abuse.¹⁸¹ A cyber-patient could feign symptoms of an illness to obtain a prescription by simply researching a disease on the Internet. Opponents argue that the possibility for deception could increase the chance of an inaccurate diagnosis by an online physician.¹⁸² Therefore, the AMA holds the position that while the practice of online medicine is not illegal, it is considered uneth

¹⁷⁹ See generally Gunther Eysenbach & Thomas L. Diepgen, *Evaluation of Cyberdocs*, 352 THE LANCET 1526 (1998), available in 1998 WL 1410621. In this experiment, the question posed was:

I am a 55 year old male and have a minor skin problem. Yesterday multiple fluid filled painful red blisters appeared on a broad streak of reddened skin on the chest (but only there). I did not intend to do anything about it, as I think it will go away, but my son suggested that I contact you. I am on Sandimmune since I had a kidney-transplant some time ago. Any idea what this could be? (I live in a rural area), or can I wait some days to see whether it goes away? Below you will find my credit information, please charge me as you deem appropriate (but please tell me, how much the consultation was).

Id. Of the ten cyber-physicians that responded, three refused to give advice because dermatology was not their area of expertise. Five of the seven cyber-physicians did respond correctly by diagnosing the problem as a herpes zoster infection that needed immediate attention. *See id.* However, two of the cyber-physicians conveyed an incorrect diagnosis. *See id.* One cyber-physician stated that there was probably nothing to worry about and suggested a homeopathic remedy by ingesting vitamin C, while the other cyber-physician advised the patient to eat two apples, have two good bowel movements a day, drink warm water, and eat dandelion and red clover. *See id.*

¹⁸⁰ See Jamie Talan, *On the Net, Be Wary of What the Dr. Orders*, NEWSDAY, Oct. 21, 1998, at A19, available in 1998 WL 2690512.

¹⁸¹ See Pies, *Cybermedicine*, *supra* note 158, at 638-39. The author stated that "in my own field of psychiatry, it is not uncommon for someone to sound quite reasonable on the phone as he or she requests an 'urgent' prescription for benzodiazepine [valium]. When the person is actually seen and examined, however, the clinician may observe needle tracks, signs of self-injurious behavior, or other signs that the person is a poor candidate for such drugs." *Id.* It should also be noted that Cyberdocs.com explicitly states that it does not prescribe narcotic drugs, however, valium is not considered a narcotic drug.

¹⁸² See Martha Slud, *Is the Web Doctor In?* (visited Jan. 5, 2000) <http://cnnfn.com/1999/11/01/life/online_health_treatment>.

ical and not "good medicine" when a physician prescribes medication to a person they have not personally examined.¹⁸³

Another potential problem for cyber-physicians concerns the accurate prescription of medications. Without a patient to observe, how can a physician be sure that a patient has given the correct information for an accurate calculation of medication? The dosage of many drugs is dependent upon the height and weight of patients. Without directly observing a patient, a number of different drugs, such as painkillers, tranquilizers, and sedatives, could be over prescribed, misused, or abused.¹⁸⁴ In addition, a patient could have an unexpected side effect or react adversely to a prescribed medication.¹⁸⁵ In those situations, if a patient is injured, the physician could be held liable.¹⁸⁶ Thus, since a cyber-physician cannot touch or see the cyber-patient and must rely solely upon a medical chart or questionnaire, the chances for error and misdiagnoses are increased.

Lastly, one of cybermedicine's pitfalls is that it does not require follow-up care by the cyber-physician who is providing the online medical care or treatment.¹⁸⁷ Although Cyberdocs.com recommends a medical follow-up from a "real time" physician subsequent to a cyber-consultation, that follow-up is almost impossible to enforce. In some situations, serious consequences may occur if a patient does not receive continued care. Therefore, it is possible that the practice of cybermedicine could result in cyber-malpractice. In the future, if medicine continues to develop in cyber-space, there could be a new malpractice specialty developed in the legal profession.

C. *The Transformation of the Traditional Physician-Patient Relationship in the New Era of Techno-Medicine*

Although the Internet has educated consumers by providing a wealth of information about health related concerns, this new medium of practicing medicine has raised questions about whether it will supplant rather than supplement the tradition-

¹⁸³ See Jennings, *supra* note 169, at 1A.

¹⁸⁴ See BLACKMAN & BAILEY, *supra* note 31, at 172-90.

¹⁸⁵ See *id.*

¹⁸⁶ See *id.*

¹⁸⁷ See *supra* notes 138-139 and accompanying text.

al physician-patient relationship. Traditionally, the physician-patient relationship was based upon face-to-face interaction, where there was a lasting relationship of mutual trust and dependence between the parties.¹⁸⁸ As such, the relationship was interpreted as a collaborative effort between the physician and patient.¹⁸⁹

The practice of online medicine will not act as a substitute for the personal interactions between the physician and patient, but rather will transform the traditional physician-patient relationship paradigm.¹⁹⁰ Cybermedicine adds a new dimension to the traditional physician-patient relationship by allowing a physician to perform an online consultation without the traditional face-to-face examination. Instead of meeting with a physician in person, a patient can now e-mail simple questions and problems or engage in an interactive conversation without an office visit.¹⁹¹ In some cases, an office visit is unnecessary and physicians can adequately practice medicine online with their patients.¹⁹² In fact, leading experts in the health care industry believe that Internet consulting services will reduce the number of in-patient visits to a physician and will force overall improvements in medical care.¹⁹³ If the public becomes increasingly comfortable with the use of electronic communication, there may be an enormous shift towards the utilization of online medical services.¹⁹⁴

¹⁸⁸ See BLACKMAN & BAILEY, *supra* note 31, at 45.

¹⁸⁹ See American Medical Association (visited Dec. 28, 1999) <<http://www.ama-assn.org/ethic/ceja/fundelms.htm>>. The AMA provides a list of fundamental elements of the physician-patient relationship to act as a guide for physicians acting as advocates to promote the best interests of their patients. See *id.*

¹⁹⁰ See Spielberg, *supra* note 59, at 267.

¹⁹¹ See Spielberg, *supra* note 59, at 269-70.

¹⁹² See Stroh, *supra* note 17, at B1.

¹⁹³ See Leslie Versweyeld, *Internet-Enabled Customer Will Radically Change the Face of Health Care Industry by 2010*, Nov. 16, 1999 (visited Jan. 6, 2000) <<http://www.hoise.com/vmw/00/articles/vmw/LV-VM-01-00-12.html>>. A survey conducted by PricewaterhouseCoopers questioned 400 industry experts, including policy makers, hospital administrators, insurers, physicians, and medical supply vendors from Canada, the United States, the United Kingdom, Finland, France, Spain, Germany, the Netherlands, New Zealand, and Australia. See *id.* The report indicated that 89% of respondents predicted that in-office visits would decrease and that medical care will shift towards catering to a patient's needs over the Internet. See *id.*

¹⁹⁴ See Kassirer, *supra* note 117, at 52.

Similarly, the Internet has afforded patients the opportunity to use it for medical care in an age when physicians have become less accessible to provide treatment.¹⁹⁵ Patients no longer want to wait several months for an appointment and are attracted to the possibility of "bypassing secretaries, busy signals, nurses, and switchboards."¹⁹⁶ In addition, a recent research study has indicated that most consumers want to be able to consult with a physician online.¹⁹⁷

As one commentator has articulated, "[T]he medium is the message."¹⁹⁸ In other words, a new technological medium will force society to change the way it interprets and assesses information. The transformation in the physician-patient relationship has already begun, as illustrated by the fact that two out of three adults state that they are less likely to establish an ongoing relationship with their primary care physician than in the past.¹⁹⁹ Furthermore, studies have shown that a patient might feel less discomfort discussing personal matters with a computer than with a physician.²⁰⁰ In turn, online medical care presents an enormous potential for preventative medicine because persons who do not have health insurance can receive medical care and people who have sexual diseases or dysfunctions can preserve anonymity while receiving treatment.²⁰¹

As such, the traditional physician-patient relationship will be re-defined in response to online health care. Similarly, the traditional health care system will be transformed to accommodate consumer desires.²⁰² Patients have already started to take charge of their own health care, as opposed to passively following a physician's orders, by logging online to seek medical information.²⁰³ Thus, the Internet will continue to alter

¹⁹⁵ See Miller & Reents, *supra* note 163.

¹⁹⁶ Foreman, *supra* note 14, at 6E.

¹⁹⁷ See Foreman, *supra* note 14, at 6E.

¹⁹⁸ Miller & Reents, *supra* note 163.

¹⁹⁹ See Miller & Reents, *supra* note 163.

²⁰⁰ See Warren V. Slack, *Patient Reaction to Computer-based Medical Interviewing*, 1 COMPUT. BIOMED. RES. 527, 527-31 (1968).

²⁰¹ See Jennings, *supra* note 169, at 1A.

²⁰² See Stroh, *supra* note 17, at B1.

²⁰³ See *id.*

the traditional balance of power between physicians and their patients as technology progresses into the twenty-first century.²⁰⁴

III. APPLYING TRADITIONAL MALPRACTICE RULES TO CYBERMEDICINE

As courts encounter malpractice issues that arise from substandard medical care administered over the Internet, they might depend upon a traditional tort model of analysis and apply established malpractice principles. Under a traditional tort model, a court might analogize those cases in which a physician-patient relationship was established over the telephone and extend the same analysis to an electronic communication. While some commentators believe that those telephone consultation cases could establish a physician-patient relationship in a telemedicine context,²⁰⁵ the same reasoning cannot be applied to cybermedicine because an entirely unique set of circumstances are presented within that field of medicine.²⁰⁶ Instead, courts faced with cyber-malpractice cases will be forced to rely upon a contractual model of analysis and to apply contract law principles to create a physician-patient relationship and a resulting duty of care.²⁰⁷

A. *Comparing Telephone Consultation Cases to Cybermedicine*

Although one might consider the issues presented by telemedicine and cybermedicine as virtually the same, cybermedicine is considered a broader concept than telemedicine.²⁰⁸ One commentator has explained that cybermedicine is more far-reaching than telemedicine because "it encompasses not only the technology and legal issues of telemedicine, but also a far greater array of non-traditional and unique, technology-enabled interactions among health care

²⁰⁴ See Tyler, *supra* note 18, at 265.

²⁰⁵ See Clare Thompson, *Cybermedicine*, 319 BRIT. MED. J. 1294 (1999), available in 1999 WL 10992950.

²⁰⁶ See Terry, *supra* note 115, at 327.

²⁰⁷ See Tyler, *supra* note 18, at 265-66.

²⁰⁸ See *id.*

providers and consumer-patients."²⁰⁹ Despite these differences, as cyber-malpractice cases begin to evolve, a court might try to use the telephone consultation cases as a guide for resolving the issue of whether a physician-patient relationship has been formed in the cyber-medical context. Specifically, a court may try to compare telemedical cases, where a patient lacks an existing or continuing relationship with a physician, to cyber-medical cases. Moreover, a court might analogize these two technological mediums because the Internet is accessed through the use of telephone lines and provides the basis for a direct communication between a physician and a patient.

Applying the reasoning from *Bienz* to a case involving a cyber-physician, a physician-patient relationship can be created by virtue of an implied contract if the physician offers medical advice pertaining to a particular course of treatment.²¹⁰ One of the purported features of Cyberdocs.com is that a patient can engage in a "live" interaction with a physician where "realtime, online, and confidential" medical advice is provided to patients over the Internet.²¹¹ In those situations in which an online physician engaging in dialogue provides negligent diagnosis, treatment, or medical advice to a cyber-patient, and the cyber-patient relies on this medical advice, *Bienz* stands for the proposition that a court might conclude that an implied physician-patient relationship has been formed.²¹² Thus, a cyber-physician would owe a duty of reasonable skill and care to the cyber-patient, assuming there was substandard medical care.

Furthermore, because the court in *Bienz* articulated that the existence of a physician-patient relationship is a question

²⁰⁹ *Id.*

²¹⁰ See *Bienz*, 163 A.D.2d at 269, 557 N.Y.S.2d at 139. Similarly, it was inferred by the court in *Weaver* that in those instances where medical advice is transmitted during a conversation over the telephone by a physician to a patient, the telephone call could be considered a form of consultation and therefore create a physician-patient relationship. See 506 N.W.2d at 264. However, the court in *Weaver* held that the mere existence of a telephone call to schedule an appointment did not create a physician-patient relationship where no prior relationship had existed. See *id.*

²¹¹ CyberDocs.com (visited Oct. 20, 1999) <<http://www.CyberDocs.com>>.

²¹² *Bienz*, 163 A.D.2d at 269, 557 N.Y.S.2d at 139.

of fact for a jury,²¹³ what constitutes "medical advice or treatment" will be determined on a case-by-case basis. In a cybermedicine context, if a cyber-patient has an adverse reaction to a prescription or is harmed by substandard medical care provided by a cyber-physician, a cyber-patient may contend that a physician-patient relationship has been formed because he has been given "medical advice or treatment" over the Internet. A cyber-patient may argue that other courts have already determined that prescribing medication over the telephone can constitute "medical treatment."²¹⁴ In light of the holding in *Bienz*, the harsh reality is that a cyber-patient might easily overcome a cyber-physician's summary judgment motion regarding the existence of a physician-patient relationship.²¹⁵ Depending on the state in which the cyber-patient resides, the cyber-patient may be entitled to a jury trial on the issue of whether an actual physician-patient relationship was present.²¹⁶ Thus, despite its advantages, an online diagnosis can be a risky endeavor for a medical practitioner.²¹⁷

While a court may try to use a traditional tort model of analysis by comparing telephone consultation cases to the *Bienz* cyber-medicine paradigm, several unresolved questions are presented by this type of analysis. For example, in *Weaver*, the court noted that a physician-patient relationship could be terminated once the patient decided to obtain care from a different physician.²¹⁸ The *Weaver* decision is particularly poignant for the cybermedicine paradigm because one of the explicit conditions of Cyberdocs.com is that it recommends that

²¹³ *Id.*, 557 N.Y.S.2d at 139-40.

²¹⁴ See *Shane v. Mouw*, 323 N.W.2d 537, 538 (Mich. 1982). In this case, the court held that where the physician had offered a prescription over the telephone, it constituted an attempt to continue treating the plaintiff's condition. See *id.*

²¹⁵ See Phyllis F. Granade & Jay H. Sander, *Implementing Telemedicine Nationwide: Analyzing the Legal Issues*, 63 DEF. COUNS. J. 67, 69 (1996).

²¹⁶ See *id.*

²¹⁷ Another issue to consider is that a potential cyber-malpractice case might be substantively easier to prove. The cyber-patient's medical record would be the questionnaire that he filled out over the Internet, and the cyber-patient can simply print out the advice or detailed instructions provided by the cyber-physician to establish that the cyber-physician did not exercise a reasonable degree of skill or care. Moreover, since a cyber-patient can only schedule an appointment with a cyber-physician from his state, there is no conflict of laws issue. As a side issue, it is unclear how the requirement for "same state residence" will be enforced.

²¹⁸ See *Weaver*, 506 N.W.2d at 266-67.

all patients receive a timely medical follow-up subsequent to receiving medical advice or a prescription drug.²¹⁹ Applying the court's reasoning in *Weaver* to the practice of medicine on the Internet, a court analyzing a cyber-malpractice case might conclude that once a cyber-patient pursues follow-up care from another physician, the virtual physician-patient relationship has been terminated.

Moreover, the court in *Weaver* acknowledged that a telephone call to schedule an appointment with a prior physician neither initiated nor revived the physician-patient relationship in the absence of an on-going relationship.²²⁰ A problem that this analysis presents for the cyber-medicine paradigm is that once a cyber-patient attempts to log back online to discuss the patient's medical situation or to discuss a prescription's possible adverse side effects, a cyber-patient may be prevented from reviving the physician-patient relationship.²²¹

Finally, another problem in applying the telephone consultation analysis to cybermedicine arises from the holding in *Miller v. Sullivan*.²²² In *Miller*, the court explained that a patient may preclude the formation of a physician-patient relationship if he does not follow the accurate medical advice administered over the telephone.²²³ Applying that principle to the cybermedicine paradigm, if a court is confronted with the situation where a cyber-physician urges the cyber-patient to receive immediate medical care or provides detailed instructions as to a particular course of medical treatment, and the cyber-patient deviates from this advice, that court can conclude that a physician-patient relationship has not been formed. Furthermore, if a cyber-patient does not receive the recommended

²¹⁹ See Cyberdocs.com (visited Oct. 20, 1999) <<http://www.CyberDocs.com>>.

Cyberdocs.com acknowledges that a good patient history is only ninety percent of the necessary "ingredients" in an accurate diagnosis. See *id.* Compounded with the inability to perform a physical examination over the Internet, Cyberdocs.com explicitly states that they are not a substitute for conventional medical care, but rather, the online service provides the initiation of medical treatment to prevent a patient's physical health from deteriorating while the patient is awaiting follow-up medical care. See *id.*

²²⁰ See *Weaver*, 506 N.W.2d at 267.

²²¹ See *id.* This assumes that when a cyber-patient logs off of the medical web site, the physician-patient relationship with the cyber-physician has terminated.

²²² 214 A.D.2d 822, 625 N.Y.S.2d 102 (3d Dep't 1995).

²²³ See *id.* at 823, 625 N.Y.S.2d at 103-04.

medical follow-up from a "real time" physician subsequent to the online consultation, a court might infer that the cyber-patient has rejected the accurate medical advice provided by the cyber-physician.²²⁴ Although a court might be tempted to adhere to traditional tort model principles and to use the telephone consultation cases as a guide to what establishes a physician-patient relationship, there are several shortcomings with that type of analysis. Thus, a court might have to look elsewhere to resolve these legal quandaries.

B. *Cybermedicine and the Contractual Relationship*

Because the application of telephone consultation cases to the cybermedicine paradigm leaves too many unresolved questions, a court might instead attempt to create a physician-patient relationship based upon traditional contract law principles. It is a well known principle that a binding contract is formed when two parties enter into an agreement and furnish consideration.²²⁵ In a traditional medical context, courts have specifically extended contractual liability to a physician who performs a medical service for the patient and receives a fee in return.²²⁶ For example, in *Dougherty v. Gifford*,²²⁷ the court found that a contractual physician-patient relationship was present between a patient and a pathologist, where the pathologist had misdiagnosed the patient's biopsy as malignant, and, as a result, the patient had received chemotherapy.²²⁸ Despite the argument that the pathologist had never seen or spoken to the patient, the court concluded that a physician-patient relationship was created because the laboratory had accepted the pathology work, conducted the laboratory analysis, prepared a pathology report, and billed the plaintiff.²²⁹

²²⁴ Another issue to consider is whether a cyber-physician's duty to exercise "reasonable" care includes the reasonable belief that a cyber-patient will not obtain a follow-up appointment with a "real time" physician. See discussion *infra* Part IV.A.

²²⁵ See generally E. ALLEN FARNSWORTH, *CONTRACTS* (1982).

²²⁶ See, e.g., *Peterson v. St. Cloud Hosp.*, 460 N.W.2d 635 (Minn. 1990); *Walters v. Rinker*, 520 N.E.2d 468 (Ind. 1988).

²²⁷ 826 S.W.2d 668 (Tex. 1992).

²²⁸ *Dougherty*, 826 S.W.2d at 675.

²²⁹ See *id.*

Similarly, in *Hand v. Tavera*,²³⁰ the court found that a physician-patient relationship had been created, even though the physician and patient had never met or spoken, because the patient had paid in advance for the physician's services and thus, had established a legally cognizable relationship.²³¹ It appears that both of these courts premised liability upon a contract, rather than upon a tort model of analysis.

The same would also hold true in a cybermedicine context, where one commentator has noted that a cyber-physician who prescribes medication and treatment over the Internet could be facing a cyber-malpractice claim if the following two elements are satisfied: (1) the existence of a contractual physician-patient relationship and (2) the physician's breach of a duty of care owed to the patient.²³² As soon as the cyber-patient submits his credit card number to obtain a virtual consultation and the consulting physician consents to treat the patient, a contractual physician-patient relationship is formed and the cyber-doctor has a duty to exercise reasonable skill and care.²³³ Thus, once payment for medical services is furnished, a contractual doctor-patient relationship will exist despite a physician's disclaimer.²³⁴ If the online physician has been negligent in his diagnosis and treatment of the cyber-patient, the cyber-physician has breached a private professional contract, and the patient will have the right to sue the cyber-physician in civil court.²³⁵

The potential for cyber-malpractice liability based upon a contractual physician-patient relationship is a threat for any physician who is diagnosing and treating patients over the Internet. Perhaps the most obvious constraint involving the practice of cyber-medicine is that a cyber-physician cannot see,

²³⁰ 864 S.W.2d 678 (Tex. 1993).

²³¹ See *id.* at 679.

²³² See Tyler, *supra* note 18, at 284 (citing Robert Pendrak & Peter Ericson, *Telemedicine and the Law*, HEALTHCARE FIN. MGMT., Dec. 1, 1996, at 12).

²³³ See *id.*

²³⁴ See Foreman, *supra* note 14, at 6E.

²³⁵ See BLACKMAN & BAILEY, *supra* note 31, at 46-47. However, the danger that is presented with this type of theory is that a cyber-patient could potentially be limited to a refund for the services rendered as the remedy for breach of contract. Furthermore, the cyber-patient would be unable to collect for pain and suffering, which is one of the remedies sought under a traditional tort theory.

touch, or listen to the cyber-patient.²³⁶ Therefore, what constitutes a "physician-patient" relationship for the purpose of a cyber-consultation is still unclear. Nonetheless, physicians should be cognizant that an agreement to provide an online consultation creates a private agreement between the physician and patient, and the cyber-physician could be held fully responsible for advice offered over the Internet.

IV. THE DEVELOPMENT OF A VIRTUAL NATIONAL STANDARD OF CARE

As the practice of medicine shifts towards the Internet, it is unclear how the law will respond to malpractice. Although a court may initially interpret and apply traditional tort principles to harm that occurs over the Internet, this approach cannot adequately define the new relationships created through the Internet. Thus, there are several possible solutions to this problem. One solution is to re-configure the traditional malpractice model and create a "virtual" national standard of care. A "virtual" standard of care would establish a uniform standard of care to evaluate a cyber-physician's conduct on the Internet for the purposes of malpractice. Another possible solution is to recognize the practice of medicine on the Internet as a distinct medical specialty, where a cyber-physician would be measured according to a medical specialist standard of care or a board certified specialist standard. If guidelines are not constructed for online medical web sites, a final solution would be for federal oversight and regulation of the practice of medicine on the Internet.

A. *The Problems in Expanding the Tort Paradigm That Call for a New Virtual Standard of Care*

With the advent of new technologies, a new standard of care might be created to accommodate the physician of the twenty-first century. It is predicted that "the next generation Internet will operate at speeds up to a thousand times faster than today. Sight, sound, and even touch will be integrated through powerful computers, displays, and networks, and the

²³⁶ See Stolberg, *supra* note 5.

Internet will increasingly be used for transmitting clinical data.²³⁷ In fact, the Next Generation Internet Initiative was recently signed by President Clinton, and one of the purposes of the act includes the development of telemedical high-resolution imaging to facilitate distant medical diagnosis and consultation.²³⁸ In addition, this legislation called for the development of technologies to advance Internet capacity and capabilities.²³⁹

In light of these technological advancements, it is unclear whether the traditional standards of care will be effective in cyberspace, or whether society wants them there at all. There is no uniform standard of care for measuring a physician's negligence in the United States. Until now, common law negligence actions are typically governed by individual states and state law dictates whether a physician will be compared to other physicians under either a local or national standard of care.²⁴⁰ However, the application of traditional tort standard of care analysis to the cybermedicine paradigm presents several unresolved questions: Would a cyber-physician be compared only to other cyber-physicians? Or would a cyber-physician be compared to other "real time" physicians and, if so, would it be a national or local standard of care model? Because there are different skills required to practice medicine on the Internet, should the practice of such medicine be considered a separate and distinct speciality? If not, should the cyber-physician be evaluated according to a board certified specialist standard of care? How would peer review factor into the potential negligence of a cyber-physician?

According to case law, those physicians who are board certified or are specialists in a particular field of medicine will be held to a national standard of care.²⁴¹ Courts who evaluate

²³⁷ See Eysenbach, *Rating Information*, *supra* note 110, at 385.

²³⁸ See Next Generation Internet Initiative (visited Jan. 3, 2000) <<http://www.ngi.gov>>. This act was signed by the President on October 28, 1998. See *id.*

²³⁹ See Next Generation Internet Research Act of 1998 (visited Jan. 3, 2000) <http://www.ngi.gov/testimony/pl_h_105-305.html>.

²⁴⁰ See Pearson, *supra* note 32, at 1133.

²⁴¹ See *Robbins*, 553 F.2d at 129; *Riley*, 137 A.D.2d at 315, 528 N.Y.S.2d at 929. See also *Barnett v. University of Cincinnati Hosp.*, 702 N.E.2d 979, 980-81 (Ohio 1998) (holding that geographical considerations do not control a board specialist's standard of care and that the standard of care for a board certified

cyber-malpractice cases in which a cyber-physician is a board certified specialist can apply traditional malpractice principles to the Internet. Currently, all of the physicians who practice medicine on Cyberdocs.com are board certified specialists, and thus, it can be anticipated that courts will evaluate those physicians under a national standard of care.

On the other hand, as more online consultation web sites proliferate and general physicians who are not board certified or specialists in their respective field of medicine begin to practice medicine on the Internet, courts may vary in defining the degree of skill and care required of a general cyber-physician. Specifically, there exists the potential for the creation of a disparate body of law regarding the standard of care owed to a patient by a general cyber-physician on the Internet. Since malpractice actions are typically governed by individual states, each jurisdiction has the right to choose whether to hold a cyber-physician to either a "same locality," "same or similar locality," entire state, or nationwide standard of care.²⁴² However, the law is already unclear in at least thirteen jurisdictions as to what standard of care is required of those physicians who are not medical specialists.²⁴³ If the present status of the law is already unclear regarding the degree of skill and care employed by a general "real time" physician, how medical malpractice law will develop, with technology as a medium, is also uncertain.

Thus, one commentator has noted that "attempting to apply established . . . law in the fast developing world of the Internet is somewhat like trying to board a moving bus."²⁴⁴ Because each jurisdiction has adopted differing approaches for measuring a physician's negligence, a revolutionary

physician is that of a reasonable specialist practicing medicine in light of present scientific knowledge in that particular field of medicine); *Bruni v. Tatsumi*, 346 N.E.2d 673, 679 (Ohio 1976) (holding that geographic conditions do not control a board certified medical specialist's standard of care).

²⁴² See *Pearson*, *supra* note 32, at 1133.

²⁴³ See *Pearson*, *supra* note 32, at 1133. In the District of Columbia and the following states, the status of the locality rule is uncertain: Arizona, California, Colorado, Florida, Missouri, Nevada, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, and Texas. See *Pearson*, *supra* note 32, at 1133.

²⁴⁴ Michael Lampert, *The Internet and Personal Jurisdiction*, 198 AUG. N.J. LAW. 47 (1999) (citing *Bensusan Restaurant Corp. v. King*, 126 F.3d 25 (2d Cir. 1997)).

transformation in assigning legal responsibility is necessary as more online consultation web sites begin to evolve. Possibly, state regulation will be an inadequate method of oversight and the time may come where the federal government will have to either regulate the practice of medicine on the Internet or re-configure current malpractice laws by developing a "virtual" national standard of care.

B. *Towards a Virtual National Standard of Care*

Since one of the unique features of cyberspace is that it crosses all national boundaries,²⁴⁵ the application of traditional tort principles, which often call for a local standard of care, can be problematic. To avoid a patchwork of varying state standards of care or state laws, a shift towards a "virtual" national standard of care is necessary. A virtual national standard of care would be analogous to a national standard of care, where a twenty-first century cyber-physician would be compared to other "real time" physicians in the same or similar circumstances nationwide, regardless of geographic location. The creation of a "virtual" national standard of care is beneficial because it could raise the cyber-physician's standard of care,²⁴⁶ and it could require a cyber-physician to exercise the same degree of skill and care as a board certified specialist.²⁴⁷

Furthermore, a shift towards a "virtual" national standard of care could create a uniform body of cyber-malpractice law. It would be difficult for a court to compare a cyber-physician using a local standard of care because, under that model, a "real time" physician is required to possess the same degree of professional skill or knowledge normally employed by profes-

²⁴⁵ See Thomas E. Anderson, *Emerging Intellectual Property Issues in Cyberspace*, 78 MICH. B.J. 1260 (1999).

²⁴⁶ Overall, a "virtual" national standard of care could raise the standard of care of all Internet physicians. On the other hand, in some areas of the country, it could lower the standard of care. For example, if your physician is practicing medicine in New York City at one of the most respected medical facilities in the country, presumably your physician could be held to a higher standard of care when compared to other local specialists of the same level of professional expertise. Thus, in this circumstance, the creation of a virtual national standard of care could lower the standard of care.

²⁴⁷ See *Robbins*, 553 F.2d at 129; *Riley*, 137 A.D.2d at 315, 528 N.Y.S.2d at 929.

sional peers under similar circumstances.²⁴⁸ Similarly, under a local standard of care model, a "real time" physician is not required to have a state-of-the-art education or skill, but must only have as much skill as an "average member of the medical profession in good standing."²⁴⁹ It would be problematic to compare "real time" physicians with other cyber-physicians because of the strong disparity that exists in the medical community regarding an overall knowledge of the Internet.²⁵⁰ Moreover, there still remains a strong cultural resistance, on behalf of many physicians, to adopt these technological advances.²⁵¹ Many physicians still believe that a patient must be examined in person and that when misdiagnosis or mismanagement of a cyber-patient's illness occurs over the Internet, it might automatically be considered substandard medical care.²⁵² Thus, the creation of a uniform "virtual" national standard of care would create a minimum standard of care to evaluate a cyber-physician, and it would also provide guidance for states when cyber-malpractice cases arise. In light of the growing trend that jurisdictions are employing a national standard of care to measure a physician's skill and competence,²⁵³ a "virtual" national standard of care is a viable solution to avoid a patchwork of varying state malpractice standards.

In addition to the creation of a uniform "virtual" national standard of care to measure the negligence of a cyber-physician who is diagnosing and treating patients, another possible alternative is to consider the practice of medicine on the Internet as a separate medical speciality. According to this view, the conduct of a cyber-physician would be measured according to a standard of care determined by other cyber-physicians, and would not be compared to the reasonable skill and care of other "real time" physicians.²⁵⁴

²⁴⁸ See Zitter, *supra* note 33, at 609.

²⁴⁹ Pike v. Honsinger, 155 N.Y. 201, 210, 49 N.E. 760, 762 (1898).

²⁵⁰ See Eysenbach, *Rating Information*, *supra* note 110, at 385.

²⁵¹ See Laura Landro, *Living With Change*, THE WALL STREET JOURNAL, Oct. 18, 1999, at R13.

²⁵² See Hafner, *supra* note 9, at 3. See also Ronald Pies, M.D., *A Psychiatrist Confronts "Telemedicine" and Issues a Warning*, THE BOSTON GLOBE, Aug. 23, 1999, at C2 [hereinafter Pies, *Telemedicine*]. Dr. Ronald Pies is a psychiatrist who is opposed to cybermedicine because of its practical limitations.

²⁵³ See Mary Anne Bobinski, *Autonomy and Privacy: Protecting Patients From Their Physicians*, 55 U. PITT. L. REV. 291, 309 (1994).

²⁵⁴ For example, in a "real time" medical context, a pediatrician may possess

There are several reasons why the practice of medicine over the Internet should be considered a separate specialty. The primary reason is that there could be several conflicting viewpoints between what a cyber-physician and a "real time" physician would consider reasonable skill and care. For example, suppose that a cyber-patient refuses to adhere to the recommended follow-up care from a "real time" physician. Should a cyber-physician be reasonably certain that the cyber-patient might dismiss their suggestion to pursue follow-up care from a subsequent "real time" physician? At the same time, should a reasonable cyber-physician be able to sense that the cyber-patient is distorting his symptoms to deceive him into providing a prescription? Should a reasonable cyber-physician ask certain clinical questions in order to detect whether the cyber-patient is a "liar, addict, poor historian, or someone with Munchausen's syndrome?"²⁵⁵ Furthermore, could a reasonable cyber-physician conclude that he has an on-going relationship with a cyber-patient once the patient signs on to the web site, or would a reasonable cyber-physician concede that the physician-patient relationship has terminated the moment a cyber-patient has logged off of a web site?

In contrast to a cyber-physician, if a "real time" physician suggests that a patient receive follow-up care, is it reasonable for the "real time" physician to assume that her patient would seek the recommended follow-up treatment? Similarly, should a reasonable "real time" physician find it easier to detect whether a patient was lying about a medical condition upon the first hand observation of a patient's symptoms or behavior? Finally, would a reasonable "real time" physician automatically

special communication skills to interact with children, as opposed to those communication skills held by a general practitioner. A pediatrician knows how to frame certain questions for a child to determine the source of the medical problem. Thus, a pediatrician is held to the same standard as other pediatricians, and he or she is not compared to a general practitioner for the purposes of malpractice.

²⁵⁵ Tyler, *supra* note 18, at 288 (citing TABER'S CYCLOPEDIA MEDICAL DICTIONARY (Clayton L. Thomas ed., 18th ed. 1997)). Tyler explained that Munchausen syndrome occurs where a patient is extremely knowledgeable about symptoms and diseases and thus can deceive the medical community. *See id.* At times, a patient with that syndrome will seek medical advice from multiple hospitals or medical institutions. *See id.*

assume that the physician-patient relationship has ended the moment that her patient has walked out of the medical office?

The answers that one might conclude as "reasonable" could vary depending upon whether the physician is a cyber-physician or a "real time" physician. These distinctions suggest that cybermedicine should be considered its own medical specialty because what a "real time" physician and a cyber-physician might consider reasonable skill and care could be exactly the opposite. It might be conceivable that a cyber-physician should possess special skills apart from those held by "real time" physicians. Because of the physical limitations of cybermedicine, a cyber-physician cannot observe first hand clinical clues, such as the smell of a patient's breath or the fact that the patient has not showered for two weeks.²⁵⁶ Maybe a cyber-physician should have special skills to "read between the lines" to detect dishonest cyber-patients.²⁵⁷ More importantly, perhaps there should be a heightened expectation that a cyber-physician will carefully inquire about the cyber-patient's medical history or surrounding circumstances.

If the traditional tort model is not expanded to accommodate this new form of practicing medicine, a call for the regulation of diagnosis and treatment web sites will become necessary. It seems as if the federal government has already taken a step in the direction of regulating cybermedicine. Recently, President Clinton assembled a task force to evaluate a number of Internet issues, including the regulation of web sites that dispense prescription drugs.²⁵⁸ Proponents argue that federal

²⁵⁶ See Pies, *Telemedicine*, *supra* note 252, at C2.

²⁵⁷ One could also argue that a cyber-physician should be held to a lower standard of care in light of the physical constraints of online medicine. Under the traditional tort model, if a "real time" physician has performed a thorough examination, he should be able to detect a deceitful patient. However, unlike a "real time" physician, a cyber-physician cannot observe first hand the physical symptoms of a cyber-patient. Rather, a cyber-physician must rely solely upon the accurate description provided by a cyber-patient. Therefore, this limitation may justify the imposition of a lower standard of care in those instances where a patient has not been honest or straightforward in describing his symptoms.

²⁵⁸ See *Clinton Targets Online Rx*, Dec. 28, 1999 (visited Jan. 5, 2000) <http://www.cnnfn.com/output/pfv/1999/12/28/companies/clinton_drugs/>. The proposal would allow the Food and Drug Administration to have control over the review and certification of all Internet pharmacy web sites. Those web sites that dispense prescription drugs to consumers who do not have a valid prescription would be subject to a penalty of \$500,000 for each violation. See *id.*

regulation will benefit the online pharmaceutical industry and will foster consumer trust, which in turn will improve the demand for drugs on the Internet.²⁵⁹ However, the federal government has yet to focus upon the online consultation web sites.²⁶⁰ Perhaps online consultation and medical web sites will be the next area to become federally regulated. As one expert predicted, "[C]ourts will have a difficult time sorting out cyber-malpractice cases because with such a significant shift in medicine and the relationship between patient, doctor and pharmacist, the old rules don't make sense any more and the new roles have not been defined."²⁶¹ Since these rules have yet to be defined, new legal principles are necessary to accommodate new medical business models.²⁶² As the news media publicizes those injuries that result from online diagnosis and treatment web sites, either federal regulation or a model act will have to be drafted to monitor the practice of medicine over the Internet.²⁶³

On the other hand, those online medical providers who do not wish to "wait and see" how a court might interpret a cyber-malpractice case or define a virtual standard of care might pioneer their own standards of care. One of the founders of Cyberdocs.com aspires to "lay the groundwork for the next technological revolution, when video conferencing becomes commonplace."²⁶⁴ One commentator has articulated that efforts have been made by the American College of Radiology

²⁵⁹ See *id.* Another interesting issue that is beyond the scope of this paper is the relationship that online physicians have with online pharmacies. This relationship could potentially fall within the scope of the Stark II Anti-kickback statute. Under this statute, it is a criminal offense to knowingly receive any remuneration (cash or anything of value) to induce referrals of items or services reimbursable by federal health care programs. Whether a cyber-physician receives some type of kickback from referring cyber-patients to an online pharmacy is another potential legal issue for cyber-practitioners. See also Department of Health and Human Services, Office of Inspector General Advisory Opinion, No. 99-14 (visited Jan. 11, 2000) <http://www.hhs.gov/oig/advopn/1999/ao99_14.htm> (discussing the impact of this statute on telemedicine).

²⁶⁰ See *Leading Cybermedicine Expert Examines Health Care on Web*, Oct. 8, 1999 (visited Jan. 5, 2000) <<http://www.slu.edu/publications/nb/new/100899.shtml>>.

²⁶¹ *Id.*

²⁶² See *id.*

²⁶³ See Keith M. Korenchuk, *Online Pharmacies Present a Host of Regulatory Issues*, NAT'L L.J., Nov. 29, 1999, at B11.

²⁶⁴ Stolberg, *supra* note 5.

and the American Electroencephalograph Society to create a standard of care for physicians practicing telemedicine within that particular field.²⁶⁵ Similarly, state medical regulators in Florida have developed a task force to examine a number of issues, including the potential for malpractice arising from web sites that offer medical advice.²⁶⁶ This task force hopes to propose legislation addressing these and other future issues.²⁶⁷

While enforceable guidelines could help the advancement of medicine and fill an important gap in the nation's health care system,²⁶⁸ a potential downfall of an industry defined standard of care is that a court may disregard the industry standard as inadequate.²⁶⁹ A court may find that a cyber-physician is negligent despite the industry defined standard of care. Therefore, an entirely new legal structure might have to be created to govern physician-patient interactions over the Internet.

CONCLUSION

Currently, there are only a handful of web sites that perform online consultations because of the unknown legal risks. It is difficult to predict how the courts will assign legal liability to a cyber-physician and whether courts will apply old legal solutions to new technology. What is apparent is that the Internet will continue to expand at a rapid pace. As cyber-malpractice cases arise, the following issues need to be resolved: (1) the formation of a physician-patient relationship

²⁶⁵ See Caryl, *supra* note 43, at 198 (citing Robert F. Pendrak & R. Peter Ericson, *Telemedicine May Soon Spawn Long Distance Lawsuits*, NAT'L UNDERWRITER LIFE & HEALTH FIN. SERVICES EDITION, Nov. 4, 1996, at 4).

²⁶⁶ See *Under Examination*, 16 NO. 5 MED. MALPRACTICE L. & STRATEGY 14 (1999). The task force includes health care professionals, members of state regulatory agencies, and other representatives of health-related organizations. See *id.*

²⁶⁷ See *id.* The task force seeks to examine online drug sales, interstate transmission of medical information, confidentiality of medical records, quality of transmitted images, and licensing. See *id.*

²⁶⁸ See Hafner, *supra* note 9, at 3.

²⁶⁹ See Caryl, *supra* note 43, at 198 (citing *T.J. Hooper v. Northern Barge Corp.*, 60 F.2d 737, 740 (2d Cir. 1932), *cert. denied*, 287 U.S. 662 (1932), where the court acknowledged that "courts must in the end say what is required; there are precautions so imperative that even their universal disregard will not excuse their omission").

and (2) the standard of care under which a cyber-physician should be measured. It can be anticipated that courts will most likely apply traditional factors to the physician-patient relationship and analogize a cyber-malpractice case using either telephone consultation or contract law principles. As for determining the cyber-physician's requisite standard of care, it depends upon whether the jurisdiction deciding the cyber-malpractice case will hold the cyber-physician to either a national or local standard of care.

It can be predicted that cybermedicine will confront a host of legal, social, and ethical challenges similar to telemedicine because both fields of medicine stem from increasing technology, which in turn has redefined the traditional medical paradigm.²⁷⁰ As one commentator explained, the Internet presents a double edged sword for medicine.²⁷¹ While the legal risks inherent in the practice of both telemedicine and cybermedicine pose a danger for an online practitioner, the innumerable potential benefits should not go unnoticed.²⁷² Certainly, cybermedicine is the future of medical care, and the traditional doctor-patient relationship will have to conform to accommodate the predicted online medical boom.

In sum, there are risks inherent in the practice of cybermedicine. The easy access and convenience that makes an online consultation so attractive also presents a legal dilemma. Often a patient will sue her doctor when an adverse medical outcome causes permanent or serious damage to the patient. Since the law has lagged behind the recent developments in the delivery of health care, it will be difficult to predict how a court will assign accountability and whether courts will apply traditional malpractice standards to a rapidly changing health care system.²⁷³ Malpractice liability will incur a new dimension of legal risk when a cyber-physician provides medical

²⁷⁰ See *supra* Part I.B.1.

²⁷¹ See Tyler, *supra* note 18, at 287.

²⁷² See *id.* The cost savings in managed care, prevention, and access are enormous; however, these benefits are hindered by the unknown standard of care. See *id.*

²⁷³ See the American Medical Association official web site (visited Dec. 28, 1999) <<http://www.ama-assn.org/physlegl/legal/paphys.htm>>. The American Medical Association provides guidelines for physicians regarding the physician-patient relationship and states that a physician should take the "ethical highroad" that includes both the patient's best interest and the best risk management strategy. See *id.*

diagnosis and treatment over the Internet. Therefore, enforceable guidelines or a "virtual" national standard of care might have to be created to avoid varying state laws in the treatment of cyber-malpractice. The law should provide a more realistic and credible basis for measuring the liability of a physician who is practicing medicine over the Internet. To do so, it must first recognize that current laws do not accommodate conflicts that may occur over the Internet. Thus, the creation of a uniform "virtual" national standard of care, in response to this new means of practicing medicine, would help protect the rights of everyone—physicians and patients.

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