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Jessica Wilen Berg

Case Western University School of Law, jessica.berg@case.edu

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ETHICS AND E-MEDICINE

JESSICA W. BERG*

E-medicine has become the new catch phrase of the twenty-first century health care environment. The shortened form of “electronic medicine” refers to a variety of technologies including e-mail, Internet chat rooms, static and interactive websites and other forms of telemedicine.¹ Although concerns about the use of telemedicine are not new, the proliferation of electronic communication options has resulted in increased scrutiny of this area.² Despite this increased scrutiny, one area—ethics—remains largely unexplored.

This Article proposes that, rather than relying solely on traditional evaluative mechanisms, for example, legal standards of care, to determine the appropriate use of the new technologies, we should shift the focus to consider the implications of ethical standards. There are a variety of mechanisms used to regulate new technologies, including: oversight by medical payors, such as

*Assistant Professor of Law and Bioethics, Case Western Reserve University Schools of Law and Medicine. B.A., 1990 and J.D., 1994 Cornell University. I would like to thank Jeremy Grushcow, Michael Heise, Robert Lawry, Maxwell Mehlman and Andrew Morriss for providing valuable comments on earlier drafts. Blaire Osgood, Karine Morin and members of the Council on Ethical and Judicial Affairs at the American Medical Association were involved in early development of the concepts. In addition, Robyn Todd provided excellent research assistance.

1. See generally Kerry A. Kearney et al., *Telemedicine: Evolving into Cyberspace*, 13 HEALTH LAW. 28 (2001); see also Judith F. Darr & Spencer Koerner, *Telemedicine: Legal and Practical Implications*, 19 WHITTIER L. REV. 3 (1997) (identifying the range of telemedicine technologies).

Some people use “telemedicine” as the broader term and consider e-medicine, or cybermedicine, a subset of telemedicine. Others view e-medicine as the broader concept because it encompasses areas beyond telemedical treatments. See, e.g., Nicolas P. Terry, *Cyber-Malpractice: Legal Exposure for Cybermedicine*, 25 AM. J.L. & MED. 327, 328 (1999) (adopting the latter strategy, because cybermedicine includes “marketing, relationship creation, advice, prescribing and selling drugs and devices, and . . . levels of interactivity as yet unknown”). The term “e-health” is also sometimes used synonymously with “e-medicine,” although it generally refers to a broader range of activities.

2. See, e.g., Patricia Kuszler, *Telemedicine and Integrated Health Care Delivery: Compounding Malpractice Liability*, 25 AM. J.L. & MED. 297 (1999) (discussing negligence theories applied in the telemedicine context). Early discussions of telemedicine pointed out some of the inadequacies of traditional legal analysis for evaluating the appropriate use of new technologies. See, e.g., Kelly Gelein, *Are Online Consultations a Prescription for Trouble? The Uncharted Waters of Cybermedicine*, 66 BROOK. L. REV. 209 (2000).

insurance and managed care companies;³ federal administrative oversight, such as the Food and Drug Administration's (FDA's) approval process for drugs and devices;⁴ licensing board oversight, through licensing and discipline; and lawsuits for professional negligence. None of these mechanisms, however, provide an ideal basis for evaluating the appropriate use of e-medicine. In part, although none of the current frameworks make innovation impermissible,⁵ they tend to restrict or dissuade physicians from employing new treatments or technologies.⁶ Even more problematic, they do an especially poor job of evaluating technologies that change *how* care is delivered, as opposed to *what* care is delivered. The determination of whether a new technology should be used to change how medical care is delivered requires evaluation of the impact of the technology on the patient-physician relationship. This issue is best addressed by reference to professional ethical standards.

3. Some of this oversight is indirect. Insurers routinely put restrictions in their coverage for "reasonable and necessary care." Because treatments outside this category are not reimbursed, there is an incentive for physicians not to provide such treatments. Of course, patients can pay out of pocket, but given the high cost of most medical treatments, this route is often unavailable for all but the most wealthy patients. There are also direct limitations as with managed care pre-authorization requirements for treatments.

4. See Federal Food, Drug, and Cosmetic Act, 21 U.S.C. §§ 301-395 (1994).

5. See James A. Henderson & John A. Siliciano, *Universal Health Care and the Continued Reliance on Custom in Determining Medical Malpractice*, 79 CORNELL L. REV. 1382, 1398 (1994) (arguing that the tort system's reliance on custom to determine liability is flawed and noting that "[b]ecause [new] technologies are being employed soon after their emergence, the tort system is generally unable to assess their reasonableness by its traditional reference to professional custom").

6. The primary forms of regulation, malpractice and licensing, are the most restrictive or dissuasive. Part of the problem is the reliance on practice standards set by custom, either within the local or national community. Innovative technologies are, by definition, not customary. Although there are some mechanisms for incorporating innovative treatments into medical care, there are fewer routes to encourage the use of innovative technologies in delivering that care. For example, patient informed consent can overcome restrictions on the use of novel treatments. See Angela R. Holder, *Physician's Failure to Obtain Informed Consent to Innovative Practice or Medical Research*, in 15 AM. JUR. 2D *Proof of Facts* § 4 (1978 & Supp. 2000); Nancy M. P. King & Gail Henderson, *Treatments of Last Resort: Informed Consent and the Diffusion of New Technology*, 42 MERCER L. REV. 1007, 1029 (1991). The doctrine of informed consent, however, does not apply to patient-physician communications. See generally JESSICA BERG ET AL., INFORMED CONSENT: LEGAL THEORY AND CLINICAL PRACTICE (2d ed. 2001). Patients do not consent to an office visit or telephone call except to the extent that they choose to participate in the first place. Applying the informed consent doctrine to immunize physician's use of innovative communication technologies is problematic for a number of reasons, not the least of which is that it implies that the patient's decision can somehow substitute for the professional determination that the use of the communication medium is appropriate. This is not to say that patients should not be informed about the technology in question, but only that there still needs to be an initial professional determination that the communication mechanism is appropriate, before suggesting its use. This determination should be made based on ethical standards regarding the patient-physician relationship.

This Article begins with a brief discussion of the patient-physician relationship and then examines the notion of trust. Trust is a difficult concept to measure, and thus I propose accepting a previously articulated framework of six elements, which form the basis of an ideal, trusting, patient-physician relationship. Once identified, the six elements can be used to assess different forms of electronic communications, and the Article sketches out some of the considerations that may arise from such evaluation. It concludes with the implications of the foregoing analysis for physician practice of e-medicine.

I. THE PATIENT-PHYSICIAN RELATIONSHIP

The patient-physician relationship forms the basis of professional ethical guidelines.⁷ Since new forms of e-medicine may be utilized outside the confines of a pre-existing relationship,⁸ they have the potential to replace rather than merely augment traditional medical care. They change the setting and nature of the patient-physician relationship and thereby alter how medicine is practiced.

Some initial discussions of ethics and e-medicine implied that e-medicine in general is problematic because it fails to create a "patient-physician relationship," using the phrase as a term of art.⁹ Emphasizing the "gold" standard of the face-to-face interaction, commentators assume that electronic communications are *per se* inferior to traditional patient-physician encounters.¹⁰ But there is little attention paid to the reasons why face-to-face encounters are important, and why electronic encounters are inadequate.¹¹ It is

7. See, e.g., Robyn Meinhardt & Kenneth W. Landis, *Bioethics Update: The Changing Nature of the Doctor/Patient Relationship*, 16 WHITTIER L. REV. 177 (1995).

8. See, e.g., Gelein, *supra* note 2, at 239-40; David Mills, *Cybermedicine: The Benefits and Risks of Purchasing Drugs Over the Internet*, 5 J. TECH. L. & POL'Y 1, 1 (2000).

9. The concept is drawn from the medical malpractice area, which relies on an initial inquiry into whether a patient-physician relationship exists to determine liability. See generally STEVEN E. PEGALIS & HARVEY F. WACHSMAN, *AMERICAN LAW OF MEDICAL MALPRACTICE* (2d ed. 1992). There are a variety of factors that are considered in determining whether a patient-physician relationship exists, including whether the physician has met and/or examined the patient, or examined the medical record or test results from the record. See *Doughtery v. Gifford*, 826 S.W.2d 668, 674-75 (Tex. App. 1992). The trend lately in cases is to find a patient-physician relationship if the physician has a contractual obligation to treat, even if he or she has not met the patient in question. See Darr & Koerner, *supra* note 1, at 19-20.

10. See generally *Drugstores on the Net: The Benefits and Risks of On-Line Pharmacies: Statement of the AMA before the House Subcommittee on Oversight and Investigations Committee on Commerce* (July 30, 1999) (statement of Herman Abromowitz), available at <http://com-notes.house.gov> (last visited Sept. 14, 2001).

11. There is no consensus on whether telemedicine (or e-medicine) harms the patient-physician relationship. See R. Wootton & A. Darkins, *Telemedicine and the Doctor-Patient Relationship*, 31 J. ROYAL C. PHYSICIANS LONDON 598 (1997). One interesting study shows that patients view encounters that are not face-to-face more positively after experiencing telemedicine.

simply assumed that physical contact is the crucial element of a patient-physician encounter and its absence undermines the electronic encounter. The analysis, however, is not this simple. While the concept of “laying on of hands” is well embedded in medical literature,¹² it is certainly not practiced in all encounters.¹³ Moreover, advances in electronic technologies have resulted in “face-to-face” interactions via electronic media. Using interactive real-time video conferencing and virtual reality technology, for example, a patient and physician can have an interactive, “hands-on” equivalent encounter.¹⁴

It makes little sense, from an ethics perspective, to talk as if an electronic encounter does not create a patient-physician relationship. The issue is the extent of the relationship and, thus, the nature and extent of the physician’s obligations. Instead of focusing on the presence or absence of one factor, such as a physical exam, we would do better to ask what elements of the traditional encounter are necessary to provide a basis for ethical care. Each encounter between a physician and patient is different, and different elements may be required before engaging in particular interventions. The American Medical Association (AMA), for example, has identified four requirements that must be met before prescribing medication: 1) ensure that a medical history is obtained or is readily available; 2) provide information to the patient about the benefits and risks of the prescribed medication; 3) generally perform an examination of the patient to determine a specific diagnosis and whether there is an actual medical problem; and 4) initiate additional interventions and follow-up care, if necessary, especially when the drug in question may have serious side effects.¹⁵

This list is essentially a medical standard-of-care analysis. The physician who fails to meet these requirements, yet prescribes medication, provides substandard care. However, there is another crucial issue to explore, beyond whether provision of medical care via electronic media meets the appropriate technical standards of care. That issue is the extent to which these new tools enable, or prevent, physicians from meeting ethical standards of care.

Rashid L. Bashshur, *Public Acceptance of Telemedicine in a Rural Community*, 4 BIOSCIENCES COMM. 17, 34 (1978).

12. See Linda Rosa et al., *A Close Look at Therapeutic Touch*, 279 JAMA 1005, 1005 (1998).

13. For example, psychiatry, while usually practiced in a face-to-face setting, often does not involve a physical exam.

14. See Kuszler, *supra* note 2, at 299.

15. American Medical Association, Report of the Board of Trustees 35-A-99, *Internet Prescribing* (1999), available at <http://www.ama-assn.org/meetings/public/annual99/reports/onsite/bot/rft/bot35.rtf> (last visited Nov. 19, 2001).

II. ETHICS AS AN EVALUATIVE TOOL

The goal of patient-physician interaction is to facilitate good medical care, which requires trust.¹⁶ Patients must trust their physicians to provide competent care since most laypersons are unable to evaluate technical medical competence.¹⁷ Patients must also trust their physicians to maintain confidentiality, so they can feel comfortable disclosing necessary personal information.¹⁸ Finally, patients must believe that physicians are not acting merely in self-interest or limited by conflicts of interest, but are geared toward preserving the patient's health.¹⁹ Professional ethical guidelines²⁰ are premised on these requirements of trust, and are designed to promote a trusting patient-physician relationship. Therefore, they provide the best guide for evaluating the extent to which new technology promotes or decreases trust.

Electronic communications are appropriate when they are equal to or better than traditional modes of patient-physician communication in promoting a trusting relationship, thereby facilitating good medical care.²¹ Traditional

16. See David Mechanic & Mark Schlesinger, *The Impact of Managed Care on Patients' Trust in Medical Care and Their Physicians*, 275 JAMA 1693, 1693 (1996) ("Trust always has been central to relationships between physicians and patients."); see also MARK HALL, TRUST, LAW AND MEDICINE: TOWARDS A THERAPEUTIC JURISPRUDENCE OF HEALTH CARE DELIVERY 7 (2001) (unpublished manuscript on file with author); Frances Miller, *Trusting Doctors: Tricky Business When It Comes to Clinical Research*, 81 B.U. L. REV. 423, 426 (2001) ("Trust has always been deemed a critical component of the therapeutic relationship. Traditional healing theory is based on the idea that patients must trust their care-givers enough to lay themselves bare, both physically and emotionally, so the true causes of illness can be understood."); William M. Sage, *Physicians as Advocates*, 35 Hous. L. REV. 1529, 1575 (1999) ("Trust between physician and patient is generally regarded as an essential component of effective medical care."); Matthew Wynia et al., *Medical Professionalism in Society*, 341 NEW ENG. J. MED. 1611 (1999); Allen E. Buchanan, *Is There a Medical Profession in the House*, in CONFLICTS OF INTEREST IN CLINICAL PRACTICE AND RESEARCH 105, 106 (Roy G. Spece et al. eds., 1996); Richard L. Cruess & Sylvia R. Cruess, *Teaching Medicine as a Profession in the Service of Healing*, 72 ACAD. MED. 941, 942 (1997).

17. The inequities of knowledge due to expertise and the need to assure competence is one basis for the professionalization of a craft. Although some commentators view this as an argument in favor of internal professional self-regulation through ethics standards, others view it as a reason to advocate for external regulation of professional groups. Compare Wynia et al., *supra* note 16, with Buchanan, *supra* note 16.

18. See Jessica Berg, *When if ever should confidentiality be set aside?*, in ETHICAL DILEMMAS IN NEUROLOGY (W.B. Saunders ed., 2000).

19. See Buchanan, *supra* note 16.

20. See, e.g., AMERICAN MEDICAL ASSOCIATION, CODE OF MEDICAL ETHICS (2001).

21. This is analogous to the premise upon which new treatments are evaluated in research protocols. See ROBERT J. LEVINE, ETHICS AND REGULATION OF CLINICAL RESEARCH (2d ed. 1986) for background on research ethics. This article does not, however, advocate a requirement that *all* new technologies be subject to research trials to prove their worth before adopting them into practice. Such a restrictive stance may well discourage innovation. Rather, this standard is set forth to stress that traditional modes of communication serve as a baseline for evaluation, and

modes of patient-physician communication are based on a face-to-face encounter.²² In order to compare electronic communications to traditional ones, we must first establish which aspects of the face-to-face encounter are important for promoting trust and providing good medical care. Once we have established what is valuable about the traditional relationship, we can consider the implications of new electronic communications on that relationship and, ultimately, on the quality of medical care provided.

III. IDEAL ELEMENTS

How can we conceptualize trust in such a way that it can be an evaluative tool? Or, to put it differently, what aspects of the patient-physician relationship facilitate trust and, thus, healing? The following sections, drawing from work by noted ethicists Ezekiel Emanuel and Nancy Dubler, examine six crucial elements of the ideal patient-physician relationship. The “six C’s,” as identified by Emanuel and Dubler, are choice, competence, communication, compassion, continuity and (no) conflict of interest.²³ By examining the

are not necessarily superior. If new communication technologies are as good as or better than the traditional modes of communication, they should be used and even encouraged.

22. Although it has become common for physicians to communicate with patients via telephone, the use of “traditional” refers to face-to-face interactions. The argument here assumes that the traditional mechanism of communication fosters appropriate goals. To a certain extent we can assume this is true, since ethics standards have shaped the traditional patient-physician relationship since early in its inception. See SAMUEL HABER, *THE QUEST FOR AUTHORITY AND HONOR IN THE AMERICAN PROFESSIONS 1750-1900* (1991) for a history of the development of the medical profession. However, not all of historical practices are necessarily positive. For example, recent attention regarding conflicts of interest have led to ethical prohibitions on certain financial relations between physicians and patients. The American Medical Association (AMA) recommends against the sale of non-health related products by physicians to patients in their office and provides limitations for the sale of health related products. American Medical Association, Council on Ethical and Judicial Affairs, Code of Medical Ethics, Op. Nos. E-8.062 & E-8.063 (2001), available at <http://www.ama-assn.org> (last visited Oct. 7, 2001). In both cases, the Council on Ethical and Judicial Affairs (CEJA) of the AMA cite the potential conflict of interest and negative impact on facilitating trust within the patient-physician relationship. Nevertheless, the sale of products within some specialties is widespread and there is historical evidence that physicians often supplemented their practice income in this way. In other words, the practice can be considered commonplace. Despite this, it was still deemed unethical.

In the context of this Article, in discussing the modes of communication between physicians and patients, we can assume for the most part that face-to-face encounters are designed to meet the goals in question. It is a separate question whether new constraints on the practice of medicine, such as those limiting the time spent with patients during office visits, so undermine the benefits of a face-to-face encounter that alternative modes of communication are actually superior. This issue will be addressed later in the Article.

23. See Ezekiel J. Emanuel & Nancy Neveloff Dubler, *Preserving the Physician-Patient Relationship in the Era of Managed Care*, 273 JAMA, 323, 324 (1995) (noting that “[w]hile many people emphasize the importance of trust in the physician-patient relationship, we believe that trust is the culmination of realizing these six C’s, not an independent element”). Emanuel

interplay between e-medicine technologies and each of these elements, we can come closer to establishing the impact of e-medicine on the patient-physician relationship. It is important to stress, however, that the goal of this examination is to provide a framework for thinking about new technologies, rather than definitive statements on the ethical acceptability of particular media. As a result, the following discussion considers each element within a broad array of e-medicine technologies and makes only general statements about benefits and concerns.

A. Choice

The role of choice in promoting good medical care in this country may be controversial, but it is of undeniable importance to many people.²⁴ Choice plays a part in a number of aspects of the patient-physician relationship. In theory, patients choose their physicians, their health plans and their treatments. There are numerous studies showing that choice of physician plays a crucial role in promoting trust and facilitating good medical care. Moreover, the notion of choice of treatment is embodied in the now well-accepted doctrine of informed consent. And while choice of health plan is often more illusion than reality, the concept that individuals should have a say in constructing their own health care system remains an important American ideal.²⁵ Electronic media may increase choice of a physician by allowing communication between physicians and patients located at some geographic distance from each other. Thus the potential pool of physicians among whom the patient can choose will widen. In addition, patients have greater ability to find and research physicians. For example, some states have put up websites that list physician's

and Dubler note that there may not be agreement on the six elements and they may change over time. *Id.* at 324. Moreover, they are not necessarily descriptive of all patient-physician relationships. *Id.*

24. See Emanuel & Dubler, *supra* note 23, at 324 (delineating kinds of choice, including choice of practice type/setting, choice of primary care and specialist physicians, and choice of treatment). There is conflicting evidence regarding whether individuals really desire freedom to choose among health plans (which few people actually have) or even desire freedom to choose from large numbers of physicians. It may be that people simply desire a choice between a few competent physicians and some may only want one recommendation. See, e.g., Lenore Skenazy, *Who Needs 205 Dressings*, N.Y. DAILY NEWS, Jan. 28, 2001, at 37 (reporting on a psychology study that found that too many choices overwhelm people).

25. Although most people have no choice of health plan or extremely limited choices, the Internet can facilitate choice by providing access to information. For example, patients can access rating of health plans of medical centers. See *America's Best Hospitals*, U.S. NEWS AND WORLD REPORT (Oct. 7, 2001) (rating hospitals for prospective patients), available at <http://www.usnews.com/usnews/nycu/health/hosptl/tophosp.htm>. See also Harris Meyer, *Information Systems: Surfing the Net for a Health Plan*, 70 HOSPS. & HEALTH NETWORKS 37 (1996) (suggesting online systems that allow individuals to pick their own health plan).

training, malpractice awards or other qualifications.²⁶ The AMA provides a website, entitled "Doctor Finder," that enables patients to search for physicians by specialty and location, and includes information about schooling and board certification.²⁷ Patients can also access a plethora of individual physician and group practice web pages, which may provide additional pertinent information.

The Internet has also had an effect on choice of treatments.²⁸ Electronic media has revolutionized the dissemination of medical information. One example is the National Library of Medicine's service, MEDLINEplus, which allows users to access information specifically tailored to the general public as well as pre-formulated MEDLINE searches of medical journals.²⁹ Another example is a pilot project creating a website that provides health outcome information for different treatment options categorized by age, health, lifestyle, severity of condition and side effects that can be accessed by patients in conjunction with their physicians during office visits.³⁰ As patients become

26. See generally Janet Firshein, *U.S. Physicians' Malpractice Data Goes on Internet*, 349 LANCET 1155 (1997) (discussing laws to make physician information accessible via the Internet). California, for example, requires the following information on licensed physicians to be posted on the Internet: 1) whether the licensee is in good standing, subject to a temporary restraining order, or interim suspension order, 2) whether the licensee has been subject to discipline by the board of another state or jurisdiction, 3) any felony convictions reported to the board after 1/3/91, 4) all current accusations filed by the Attorney General, 5) any malpractice judgment or arbitration award reported to the board after 1/1/93 and 6) any hospital disciplinary actions that resulted in the termination or revocation of a licensee's hospital staff privileges for a medical disciplinary cause or reason. CAL. BUS. & PROF. CODE § 2027 (West 2001). There is a great deal of controversy, however, about these postings. See Damon Adams, *Groups Squabble Over Use of "Enforcement" Tag*, AM. MED. NEWS, July 9/16, 2001, at 23, available at http://www.ama-assn.org/sci-pubs/amnews/pick_01/prsg0709.htm; see also Damon Adams, *Pa., Va. Latest States to Offer Physician Data Online*, AM. MED. NEWS, Aug. 13, 2001, at 14, available at http://www.ama-assn.org/sci-pubs/amnews/pick_01/prsc0813.htm#w1.

27. For access to Doctor Finder, see the AMA website at <http://www.ama-assn.org> (last visited Nov. 19, 2001).

28. See Paul Starr, *Health Care Reform and the New Economy*, 19 HEALTH AFF. 23, 27 (2000) (stating that "[i]t is unclear whether the Internet will encourage wider choice of providers within plans, but it plainly encourages stronger consumer role in the choice of treatment because of the access it affords patients and their families to information about therapeutic options."). See, e.g., Mary Patsos, *The Internet and Medicine: Building a Community for Patients with Rare Diseases*, 285 JAMA 805 (2001) (facilitating communication between patients with rare diseases). Such communication not only provides a support mechanism for patients, but also serves as a source of information. *Id.*

29. See Donald A. B. Lindberg, *The National Library of Medicine's Web Site for Physicians and Patients*, 285 JAMA 806 (2001) (stating that a website must be dependable, have an advisory board whose names are listed, not promote products or services, be consistently available and have reliably maintained links). The service also connects users to medical dictionaries, hospitals, directories of physicians/dentists, a medical encyclopedia and information on prescription drugs. See *id.*

30. See Damon Adams, *Database to Offer One-Stop Shopping for Treatment Options*, AM. MED. NEWS, April 9, 2001, at 12 (discussing a database to help patients and physicians determine

more informed consumers they may be able to better judge their need to see a physician, and even the specifics of that need, including what kind of physician to see. There is even a website listing clinical trials throughout the country.³¹ Although, perhaps not as welcome to physicians, the Internet also enables patients to learn more about their choice of alternative medicine and alternative medical providers.³² It may be that the e-health information revolution will finally succeed in fully shifting the patient-physician relationship away from the physician-dominant model and towards the ideal of shared decision making envisioned by the development of the informed consent doctrine, which was first conceived almost half a century ago.³³

Although greater access to information is generally thought to be beneficial, there are also downsides to that access. Most information on the Internet is not regulated, nor subject to peer review or other content evaluations.³⁴ Although there have been efforts to accredit health information sites, these have been implemented only recently and have yet to be fully tested.³⁵ There is a great deal of deceptive and misleading information.³⁶

the best approach to specific diseases), *available at* <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

31. See National Institutes of Health, Clinical Trials, *at* <http://www.clinicaltrials.gov> (Oct. 7, 2001) (listing more than 5,200 publicly and privately funded trials).

32. Most mainstream medical practitioners are either trained in allopathic or osteopathic medicine and there are few differences between the two. The allopathic degree is a M.D. and the osteopathic is a D.O. Both usually lead to residency programs (which accept students with either degree), and often to board certification. There are currently a variety of so-termed "alternative medical providers." These include homeopaths, naturopaths, chiropractors and others. See generally David Eisenberg, *Advising Patients Who Seek Alternative Medical Therapies*, 127 ANNALS INTERNAL MED. 61 (1997).

33. See BERG ET AL., *supra* note 6. Furthermore, greater patient involvement in care may lead to more competent care. *Id.* See also Rob Cunningham, *Two Old Hands and the New New Thing*, 19 HEALTH AFF. 33 (2001) (quoting Newt Gingrich about the effect of the Internet on informed consent and consumer models of decision making in medicine). See generally Pew Internet & American Life Project: Online Life Report, *The Online Health Care Revolution: How the Web Helps Americans Take Better Care of Themselves*, *at* <http://www.pewinternet.org> (Nov. 26, 2000) (discussing the impact of the Internet on access to health information).

34. See Donald A.B. Lindberg & Betsy L. Humphreys, *Medicine and Health on the Internet: The Good, the Bad, and the Ugly*, 280 JAMA 1303 (1998). MEDLINEplus is an exception to this. See *supra* note 29 and accompanying text.

35. See generally Bruce Merlin Fried et al., *E-Health: Technologic Revolution Meets Regulatory Constraint*, 19 HEALTH AFF. 124 (2001). See e.g., American Accreditation Health Care Commission, New Accreditation Programs (charging \$5000 for review each year), *at* <http://www.urac.org> (last visited Sept. 14, 2001); See also Hi-Ethics, Health Internet Ethics, *URAC and Hi-Ethics Collaborate on health Web Site Accreditation*, Press Release, *at* <http://www.hiethics.org/Press/Releases/010521.asp> (May 21, 2001) (stating that Hi-Ethics and URAC have joined forces and plan that URAC's Health Web Site Accreditation Program will demonstrate adherence to quality standards based on the fourteen Hi-Ethics Principles); David W. Bates & Atul A. Gawande, *The Impact of the Internet on Quality Measurement*, 19 HEALTH AFF.

Nonetheless, people view information obtained from computers as more authoritative than information obtained from print sources.³⁷ As a result, physicians may have to spend precious additional time correcting patient misconceptions or second-guessing a patient's description of symptoms or request for a particular drug. Although the proliferation of physician, drug and other medical information web pages means that patients have mechanisms to obtain more information and thus theoretically have more choices, the vast array of misinformation has the potential to limit choice by confusing patients.³⁸ For example, although providing health information on the Internet may help some patients self-diagnose, one journalist notes that the Internet has resulted in the development of "cyberchondriacs" who believe they have any illness they see on the web.³⁹

B. Competence

Another key element of the patient-physician relationship is competence.⁴⁰ Here the focus is on technical expertise. Electronic technologies may have both direct and indirect impact on physician competence. These different modes of communication require technical competence in order to be employed properly, and physician training in this area lags far behind.⁴¹

104 (2001) (noting that besides concerns related to judging the quality of information, there may also be difficulty in communicating quality information).

36. See generally Thomas N. Robinson, et al., *Evidence-Based Approach to Interactive Health Communication*, 280 JAMA 1264 (1998).

37. *Id.* at 1265 (noting that "people put more credibility in information from computers than from television and other media"). This perception may be changing. See Tyler Chin, *Web Users Worry About Health Info Accuracy*, AM. MED. NEWS, Dec. 25, 2000 (reporting one study showed that 86% of adults that accessed health information over the Internet were concerned about the reliability of the information), available at http://www.ama-assn.org/sci-pubs/amnews/pick_00/tesb1225.htm.

38. It is worth noting that many "reputable" electronic medical sites such as drKoop.com and WebMD have recently encountered significant financial problems.

39. Ann Carrns, *Cyberchondriacs Get What Goes Around on the Internet New*, WALL ST. J., Oct. 5, 1999, at A1.

40. Emanuel & Dubler, *supra* note 23, at 324. The authors define competence to include: current knowledge, technical skills, clinical judgment and an understanding of one's own limitations. *Id.*

41. See, e.g., Jerome P. Kassirer, *Patients, Physicians, and the Internet*, 19 HEALTH AFF. 115 (2000); Bonnie I. Chi-Lum & Robert M. Durkin, *Physicians Accessing the Internet: The PAI Project*, 282 JAMA 633, 634 (1999); Jordan M. Prutkin, *Cybermedical Skills for the Internet Age*, 285 JAMA 808, 808 (1999) ("[C]apitalizing on the power of the Internet requires both technical proficiency as well as an understanding of why these technologies are important from a societal perspective."); Tyler Chin, *Doctors go online, but mostly from home, not the office*, AM. MED. NEWS, Feb. 12, 2001 (reporting that "[m]ost physicians use the Internet and computers but don't see enough value yet to use them professionally"), available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>; Tyler Chin, *Tech Effect*, AM. MED. NEWS, Aug. 13, 2001, at 29, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>

Moreover, the anonymous nature of the Internet may make it more difficult for patients to evaluate the physician's medical competence. Credentials of the individual on the other end of the electronic media may be difficult to verify.⁴² On the other hand, evaluating physician competence is difficult even in the traditional settings. There are a number of cases in which physicians held themselves out to be board-certified or experts in a particular area, but in fact lacked the credentials and experience they claimed.⁴³

There is no reason to think that patient trust suffers due to lack of ability to directly evaluate competence any more in the electronic setting than in the traditional settings. In fact, patients generally rely on professional self-regulation to ensure competence.⁴⁴ To the extent that the medical establishment is seen as failing to ensure adequate competence, trust suffers in both face-to-face and electronic encounters.⁴⁵ Thus the key issue for electronic media may be the extent to which professional regulation⁴⁶ is seen as appropriately guiding physicians' use of new technologies (for example,

(reviewing an Institute of Medicine report which states that a great deal needs to be done to fully implement the benefits of new technologies into the delivery of health care).

42. In fact, some websites fail to list the credentials of the health professionals in question, or even identify whether the individual is a "health professional." See, e.g., Bernard S. Bloom & Ronald C. Iannaccone, *Internet Availability of Prescription Pharmaceuticals to the Public*, 131 ANNALS INTERNAL MED. 830, 831-32 (1999) (surveying Internet prescription sites and finding that 80.4% of sites did not provide physicians' names, specialties, locations or qualifications).

If a website does list credentials, it may turn out to be easier to check their validity using electronic resources. It may be just as, or more, difficult to check the legitimacy of diplomas on the wall of an office. One of my favorite New Yorker cartoons shows a horrified wife of a patient looking at a physician's diplomas while her husband sits on the examining table and exclaiming: "Dave! These are all just part of the wallpaper pattern!" John McPherson, *Close to Home*, NEW YORKER, Apr. 16, 1998, available at <http://www.ucomics.com/closetohome/viewcl.htm>.

43. See, e.g., cases cited in BERG ET AL., *supra* note 6, at 61-64.

44. In fact, some authors argue that this is one basis for the professionalization of a trade—laypersons' inability to evaluate competence, and thus the need for professional standard setting and enforcement. See, e.g., PAUL STARR, *THE SOCIAL TRANSFORMATION OF AMERICAN MEDICINE* 9-17 (1982).

45. For an example of the failure to police face-to-face encounters, consider the infamous case of Michael Swango, who killed a number of his patients before finally being apprehended. From his medical school training onwards there was evidence of problems, none of which prevented him from becoming licensed in different states and continuing to both practice medicine and murder. See JAMES B. STEWART, *BLIND EYE: HOW THE MEDICAL ESTABLISHMENT LET A DOCTOR GET AWAY WITH MURDER* (1999) (outlining the facts of the Dr. Michael Swango case and the work by Nancy Watson, a staff member at the American Medical Association, that led to his discovery). See also Michael Grover et al., *Deception by Applicants to Family Practice Residencies*, 33 FAM. MED. 441 (2001) (finding that most residency directors took application information at face value, thus failing to catch falsified credentials).

46. State licensing boards are included in the discussion of the legal framework, because licensing authority and standards come from the state. But licensing boards are composed of professionals, so there is an interesting mix of both professional and state regulation.

consider the AMA Internet prescribing guidelines). One of the biggest problems regarding e-medicine is the lack of consistent oversight and the difficulty in identifying which organization has the authority and responsibility for regulation of the variety of practices in question.⁴⁷ This confusion may lead to (if it has not already) the impression that e-medicine is not regulated appropriately, undermining patient trust.

Although evaluating and ensuring competence may be difficult, e-mail or other new electronic media may promote more competent care within a particular patient-physician relationship than other forms of electronic communication such as telephones. Physicians potentially can provide better and more thoughtful advice via e-mail, which they can answer at their leisure, than via telephone conversation that occurs during the middle of caring for another patient (not to mention provide better care for the patient being examined). The production of a written transcript of the interaction that can be entered into the patient's medical record is also likely to improve overall care. Video conferencing and use of technologies that can transmit specific medical information over long distances can facilitate consultation among physicians and thus better care for patients. The increase in "home telecare" allows continued monitoring and provision of health care to patients who lack mobility or who prefer to remain in familiar settings.⁴⁸ It may turn out that video conferencing and virtual reality technology revive the now defunct physician "home visit." Finally, like the patient, the physician gains access to a vast array of resources through the Internet, including medical information⁴⁹ and a means for contact with other physicians.⁵⁰ Recent developments include

47. There are concerns about the lack of consistency both at a national and an international level. See Haney, *infra* note 82, at 590-92; see generally Kearney et al., *supra* note 1.

48. Steven W. Strode et al., *Technical and Clinical Progress in Telemedicine*, 281 JAMA 1066, 1067 (1999).

49. See, e.g., Tyler Chin, *Gathering Clinical Evidence Online*, AM. MED. NEWS, Dec. 11, 2000, at 27 (discussing the usefulness of evidence-based websites), available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>. Another study showed that providing online "pop-up" information to physicians at the point of care can inform and thus influence prescribing behavior. Dimitri A. Christakis et al., *A Randomized Controlled Trial of Point-of-Care Evidence to Improve the Antibiotic Prescribing Practices for Otitis Media in Children*, 107 PEDIATRICS 15, 15 (2001), available at <http://www.pediatrics.org/cgi/content/full/107/2/e15>.

Of course this assumes that the information provided on the Internet is not only correct, but appropriate. For example, electronic pop-up advertisements for drugs raise the same concerns as print advertisements (although perhaps to a greater degree). Ideally, advertisements serve to educate physicians, but there is evidence that in some cases they can result in inappropriate changes in prescribing practices.

50. Besides providing a link to other physicians, the Internet can also facilitate access to other resources. For example, Delaware plans to put in place a statewide electronic reporting system for communicable diseases that will link physicians, hospitals and laboratories. See Tyler Chin, *Delaware Plans Statewide Reporting System*, AM. MED. NEWS, Aug. 13, 2001, at 31

peer-to-peer physician networks—"the Napster of health care"—allowing physicians direct access to each other's files and information.⁵¹

But there are also potential problems. As previously pointed out, the physician, like the patient, must wade through enormous amounts of sometimes-erroneous information. In addition, there are concerns that physicians relying solely on electronic communications will have difficulty diagnosing patients.⁵² Visual cues can be important in diagnosis and are absent from many electronic media. These concerns, however, speak more to the appropriateness of using a particular electronic medium in a particular circumstance (for instance, prescribing medication via a website) than to the overall effect of e-medicine on physician competence. As repeatedly stressed here, individual technologies should be evaluated to determine in what circumstances their use is most appropriate. This is likewise true of face-to-face encounters. For example, rarely will a five-minute routine initial office visit be sufficient for recommending surgery to a patient, although it may be an adequate basis for suggesting lifestyle changes or a follow-up evaluation.

The greatest danger, apart from the potential for misuse, is that these new electronic communication mechanisms might be seen as substitutes for more extensive encounters between physicians and patients. The general constraints that exist in current medical practice leave less time for physicians to focus on developing a good patient-physician relationship upon which to base continued treatment.⁵³ If electronic means of communication become a widespread substitute, rather than a supplement to other interactions, they may further erode physicians' ability to find out information about their patients and provide competent medical care.

C. Communication

The third factor, communication, is linked closely with competence.⁵⁴ In order to provide competent care, the physician must communicate with the patient. Analysis of the impact of e-medicine in this area is hindered by the lack of empirical data: Do electronic forms of interaction facilitate or

(noting that "[a]ll 50 states are working to develop statewide electronic public health warning systems"), available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

51. Tyler Chin, *Peer to Peer: Sharing Patient Data Online*, AM. MED. NEWS, Mar. 12, 2001, at 34, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

52. Kelly K. Gelein, *Are Online Consultations a Prescription for Trouble? The Uncharted Waters of Cybermedicine*, 66 BROOK. L. REV. 209, 238 (2000) (noting that in addition to other concerns, a physician will be unable to check, for example, that the patient's height and weight are self-reported accurately to calculate dosage of medications).

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

54. Emanuel & Dubler, *supra* note 23, at 324.

undermine clear communication between physicians and patients?⁵⁵ Most people have encountered difficulties correctly interpreting another person's comments over the telephone, e-mail or other non face-to-face media. In an attempt to compensate for these difficulties, people have taken to inserting "emoticons," or surrogate facial expressions, such as happy or sad faces, into e-mail messages.⁵⁶ Moreover, there are obvious confidentiality concerns that arise from the use of these new technologies⁵⁷ which may inhibit patients from freely communicating with their physicians via electronic media.

However, as previously mentioned, the new electronic means of communication, such as e-mail, may constitute an improvement on older communication media, such as the telephone. Although there may be a tendency to think that anything besides a face-to-face encounter is less desirable, there may be some circumstances in which electronic communications are actually preferable. For some particularly sensitive issues, the greater anonymity of the Internet may afford patients a more comfortable forum for communication.⁵⁸ One study noted that "[c]omputer-based interfaces . . . can increase a participant's willingness to engage in frank discussions about health status, behavioral risks, and fears and uncertainties."⁵⁹

55. See Thomas N. Robinson et al., *An Evidence-Based Approach to Interactive Health Communication: A Challenge to Medicine in the Information Age*, 280 JAMA 1264 (1998); Kassirer, *supra* note 41, at 119.

56. Sample emoticon dictionaries can be found at the following sites: NetPets, Inc., *Emoticons: E-mail Moods!*, at <http://www.chirpingbird.com/netpets/html/computer/emoticon.html> (last visited Sept. 28, 2001); The Primitive Baptist Web Station, *Common Emoticons and Acronyms*, at <http://www.pb.org/emoticon.html> (last visited Sept. 28, 2001); Bronwen & Claire's Really Huge Emoticon Collection!, *Commonly Used Emoticons*, at <http://www.angelfire.com/hi/hahakiam/emoticon.html> (last visited Sept. 28, 2001).

57. Christopher J. Caryl, *Malpractice and Other Legal Issues Preventing the Development of Telemedicine*, 12 J.L. & HEALTH 173, 182-84 (1998); Alissa R. Spielberg, *Online Without a Net: Physician-Patient Communication by Electronic Mail*, 25 AM. J.L. & MED. 267, 275-80 (1999); Darr & Koerner, *supra* note 1, at 10-12; James G. Hodge, Jr. et al., *Legal Issues Concerning Electronic Health Information: Privacy, Quality, and Liability*, 282 JAMA 1466, 1467 (1999); Press Release, Medem, "Avoid Standard Un-secure E-mail for Online Communications with Patients," Says Nation's Leading Medical Societies and the AMA, Top Malpractice Carriers and Medem (April 30, 2001), at www.medem.com/Corporate/press/corporate_medeminthenews_press042.cfm (last modified Sept. 28, 2001).

58. However, problems with this anonymity are demonstrated by the development of Internet complaint sites that allow patients to anonymously vent their dissatisfaction with particular physicians. Often the physicians are neither notified of the complaints nor given a chance to respond. Furthermore, the complaints are not often investigated for accuracy. Besides the potential problems for the physician's reputation and practice, the availability of these sites seems to discourage direct communication with the physician—a situation that can potentially lead to worse care both for that patient and for future patients. Tyler Chin, *Gripevine*, AM. MED. NEWS, Feb. 26, 2001, at 22, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

59. Robinson et al., *supra* note 55, at 1265.

In fact, one area that has recently received positive attention is the use of e-mail counseling for psychiatric patients.⁶⁰ Furthermore, Internet technology may be ideally suited for behavioral public health interventions.⁶¹ For example, chat room technology has been promoted as a way to provide health information to teenagers. There are a number of benefits to using electronic communications with this population including avoiding embarrassment, providing links to other teens for feedback and providing easy access to medical advice and professionals.⁶²

As tools supplementing current patient-physician relationships, the electronic media is likely to be more beneficial than detrimental from the standpoint of communication. In fact, they may function to enable better patient understanding of information and thus facilitate increased patient involvement in decisions about their care.⁶³ Information can be disseminated to large patient populations and easily updated as necessary.⁶⁴ However, it is questionable whether these technologies should be used as a widespread substitute for more traditional modes of communication. For example, even those who stress the potential benefits of using e-mail counseling caution against allowing e-mail to “diminish the need for personal contact.”⁶⁵

D. Compassion

Compassion,⁶⁶ which is the fourth factor, or element of the ideal patient-physician relationship, is closely linked with communication. A physician must not merely be compassionate, but must also communicate that compassion to the patient.⁶⁷ Since emotional or other psychological signals are

60. Cameron Johnston, *Psychiatrist says counselling via e-mail may be yet another medical use for Internet*, 155 CAN. MED. ASS'N J. 1606, 1606 (1996). Benefits touted include the ability to interact without disrupting the physician's home or office schedule, providing a “safe” forum in which to express feelings, providing an alternative means of communication for patients who are less articulate when engaged in oral interactions, and the ability to keep conversations more “on track” than possible via telephone. *Id.* at 1607.

61. Deborah F. Tate et al., *Using Internet Technology to Deliver a Behavioral Weight Loss Program*, 285 JAMA 1172, 1172 (2001).

62. Bonnie Rothman Morris, *Teenagers Find Health Answers With a Click*, N.Y. TIMES, Mar. 20, 2001, at F8. Teenagers are also more likely to have access to the Internet, either from home or through schools and libraries. Moreover, they are likely to be familiar with, and comfortable with, the technology.

63. Robinson et al., *supra* note 55, at 1265.

64. *Id.* (stating that one advantage of the new media is the “[e]nhanced ability for widespread dissemination and for keeping content or functions current”). Consider the Consumer Products Safety Commission's e-mail service for product recalls and safety alerts.

65. Johnston, *supra* note 60, at 1606.

66. Emanuel & Dubler, *supra* note 23, at 324. Emanuel and Dubler define compassion as “empathy” and stress the need to communicate compassion to the patient. *Id.*

67. *Id.*

difficult to communicate via a particular electronic medium,⁶⁸ attempts to convey compassion may fail. It also may be more difficult for a physician to feel compassionate when he or she is separated from a patient by a great geographic distance and has never actually seen the patient in person. Empathizing with patients that sit in a physician's office may well be easier than empathizing with a patient through e-mail or the Internet. On the other hand, intimate relationships that form over electronic media provide some evidence that strong psychological and emotional links can be developed in non face-to-face settings.⁶⁹

E. Continuity

Although compassion may suffer via electronic communications, the fifth factor, continuity,⁷⁰ is likely to be enhanced. As previously noted, new technologies enable physicians and patients to maintain contact over long distances and also to share information with other health care providers. On the other hand, continuity is most certainly a concern when the patient communicates with a particular site versus a particular health care professional. Like telephone referral services staffed by multiple persons, website or e-mail interactive communications may entail contact with multiple physicians or other health care providers.⁷¹ Without careful attention to maintaining records of ongoing communications, patients may find that their care is not coordinated and may suffer as a result. Furthermore, follow-up care may be more difficult when an interaction is initially prompted by an electronic

68. See Kassirer, *supra* note 41, at 119.

69. There are literally hundreds, if not thousands, of Internet dating services. See, e.g., uDate.com, at <http://www.connectionzone.com/welcome.asp?R=5573> (last visited Sept. 28, 2001); Pearz: Connections for People, at <http://pearz.com> (last visited Sept. 28, 2001); Great Expectations, at <http://www.great-expectations.net/html/happinessisyourchoice.asp> (last visited Sept. 28, 2001).

There is conflicting evidence regarding the impact of the Internet on social interaction. Initial studies indicated that high Internet use may be correlated with social isolation or alienation. See NORMAN H. NIE & LUTZ ERBRING, STAN. INST. FOR QUANTITATIVE STUDY SOC'Y, INTERNET AND SOCIETY: A PRELIMINARY REPORT (Feb. 17, 2000), available at http://www.stanford.edu/group/siqss/Press_Release/internetStudy.html (last visited Sept. 28, 2001). But more recent findings show that the Internet can function as a tool enabling people to maintain a robust social network. See Philip E. N. Howard et al., *Days and Nights on the Internet: The Impact of a Diffusing Technology*, 45 AM. BEHAV. SCIENTIST 383 (2001).

It is important to note that the impact of electronic communications on intimate relationships and social interactions may be significantly different than the impact on the patient-physician relationship and the provision of health care. If so, then the aforementioned studies are of limited value in judging the appropriateness of electronic communications between physicians and patients.

70. Emanuel & Dubler, *supra* note 23, at 324-25.

71. This may also occur in a face-to-face setting. For example, there are a number of large physician practices where patients see whichever physician is currently available.

communication, such as when a patient seeks a prescription via a website. In contrast, the use of electronic communications, such as e-mail, as a follow-up to a face-to-face office visit enhances continuity of care.

F. Conflict of Interest

Finally, there are conflict of interest concerns in the area of e-medicine.⁷² Conflicts of interest may arise between a physician's personal interests, including those of a financial nature, and patient care, care of one patient versus care of another patient, and care of patients versus other professional obligations.⁷³ There is no initial reason to believe that e-medicine raises additional conflicts between different patients, or between different professional obligations.⁷⁴ However, there may be specific concern regarding financial interests.⁷⁵

The most basic financial conflicts arise from reimbursement mechanisms. Fee-for-service systems create incentives to provide more care (since care is reimbursed on a per-procedure basis) and some capitated systems create incentives for less care (since a flat fee covers all care rendered).⁷⁶ Reimbursement for use of electronic media varies, with few insurance companies covering things like e-mail.⁷⁷ In some cases a group practice may

72. Emanuel & Dubler, *supra* note 23, at 325. The authors state this element as "(No) Conflict of Interest."

73. See Patricia Werhane & Jeffrey Doering, *Conflicts of Interest and Conflicts of Commitment*, 4 PROF. ETHICS 47 (1996).

74. This could change if physicians find themselves pressured between providing care to "virtual" patients versus "in-person" patients. Likewise, if electronic interactions result in adding to physician workloads, rather than easing them, there may be conflicts between professional obligations.

75. This concern is possibly heightened by the lack of personal interaction and effect on compassion.

76. Stephen R. Latham, *Regulation of Managed Care Incentive Payments to Physicians*, 22 AM. J.L. & MED. 399 (1996).

77. In fact, the AMA has been pushing the Centers for Medicare & Medicaid Services (CMS, formerly known as HCFA) to provide separate reimbursement codes for different modes of electronic communication (including telephone calls, which are currently bundled with other service codes), stressing the need to evaluate these services separately. Tyler Chin, *Delegates Sort Through Patient E-mail Issues*, AM. MED. NEWS, July 10/17, 2001, at 33, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>. CMS reimburses for some telemedicine services, but has strict limits. Medicare also provides some reimbursement mechanisms as do some insurers. Two states, Louisiana and California, have laws requiring such reimbursement. Steven W. Strode et al., *Technical and Clinical Progress in Telemedicine*, 281 JAMA 1066, 1066 (1999). In addition, one group of self-insured companies in California have instituted a new program to reimburse physicians twenty dollars per e-mail contact in an effort to encourage both patients and physicians to use the new technology for non-emergent care. Another plan offers cash incentive to physicians who have e-mail consultations with chronic patients. Tyler Chin, *Pilot Project to Pay Physicians for E-mail "Visits"*, AM. MED. NEWS, April 9, 2001, at 27, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

impose a flat, out-of-pocket fee on patients for such use.⁷⁸ Others charge based on time spent; for example, a group of New York doctors offer “[p]sychoanalytically guided self-inquiry” via e-mail for one hundred twenty-five dollars an hour.⁷⁹

One concern in this area is that it may be more difficult to estimate or oversee time spent involved in electronic communications. The lack of insurance coverage means there will be no external oversight or review of charges. Unlike the office visit (or even the telephone call) where the patient knows how much time the physician spends in his or her company, the patient has no way of knowing how long the physician spends answering e-mail. On the other hand, once outside the examining room, patients generally are unaware of the additional time physicians spend on their cases, and it is not clear the incentives in this area to overcharge are any greater.

In addition to concerns about abuse, there are also legitimate questions about how time should be charged. Should physicians who use the hunt-and-peck method of typing charge less (in terms of lower hourly rate) for their time? Should the speed of an Internet connection be taken into account? Despite the backlash against managed care, the oversight and standardization it provides regarding compensation for physician services is useful. The absence of both oversight and standards in the electronic context may make it difficult both for physicians to determine how to set fees and for patients to be able to compare rates across physician practices.

Although the conflict of interest issues in this context are similar to those of many treatments that are not considered medically necessary and for which patients pay out-of-pocket, the incentives in some cases may be extreme. Consider, for example, one website selling Viagra which charges a consultation fee of eighty-five dollars, only if your application is approved.⁸⁰

78. The Finch University of Health Science/Chicago Medical School Reproductive Medicine Program regularly bills from \$30 to \$250 per e-mail from physicians, grading from administrative response to pathology test results. Finch University of Health Science/Chicago Medical School Reproductive Medicine Program, *E-Mail Billing*, at <http://repro-med.net/info/emailbill.html> (last visited Sept. 14, 2001). Consult Doctor charges \$20 for an e-mail response within five business days and \$30 for a response within two business days. Consult Doctor, *FAQ*, at <http://www.consultdrs.com/faq.htm> (last visited Oct. 4, 2001). Ask Your Family Doc charges \$25 for a “typical” question, for which she will allot up to fifteen minutes including research. Anything more than that requires you to ask her for a quote. Ask Your Family Doctor, *Ask the Doc a Question*, at <http://www.askyourfamilydoc.com/askdoc.htm> (last visited Oct. 4, 2001). Ask Dr. Z charges \$10 for an e-mail response, \$5 for a fax and \$25 for a person-to-person telephone call (collect, paid by the patient). Second Opinions with Doctor Stuart Zeman, *Ask Dr. Z*, at <http://secondopinionswithdrz.com/askdrz.html> (last visited Sept. 14, 2001).

79. Johnston, *supra* note 60, at 1606 (editor’s note in text).

80. Buy Prescriptions Online, *Please Read the Consent to Medical Care – VIAGRA*, at <http://www.1-buy-prescriptions-online.com/itemdetail.asp?category=viagra> (last visited Oct. 4, 2001).

Contrast this with the traditional office visit for erectile dysfunction—the patient pays regardless of whether a prescription treatment is provided. Moreover, the most popular types of drugs for which prescriptions have been offered on the Internet—Viagra, diet pills, hair replacement treatment and fertility drugs⁸¹—to name just a few, are drugs for which there is a significant black market. The anonymous nature of the Internet may lead to less careful prescribing and less ability for oversight.⁸² For some time now, journalists have been reporting successful efforts to obtain prescription medication via the Internet for medically inappropriate candidates, including pets, deceased individuals or patients with clear contraindications.⁸³

IV. AN ETHICAL STANDARD OF CARE

Having briefly considered the important elements in a patient-physician relationship and the implications of e-medicine technologies for each, there are several conclusions that can be drawn with respect to e-medicine. First, it is worthwhile to stress that the issues are more complex when the technology in question is used in the absence of a pre-existing traditional patient-physician relationship. Presumably, where the traditional interaction(s) function to establish the ideal elements, the electronic interaction(s) merely build upon an existing trusting relationship. Therefore, e-mail communications with existing patients who routinely obtain the bulk of their medical care through traditional face-to-face encounters are less likely to be problematic than e-mail communications with unknown individuals. But even among the population of existing patients, restraint may be appropriate; not all health care is appropriately delivered via an electronic medium, even for established patients, and physicians may have to make case-by-case determinations. Second, even though using electronic communications as an adjunct to a traditional relationship raises fewer concerns, much of the beneficial potential of e-medicine will be lost if limited only to use in this context. Health professionals need guidelines for determining when to use e-medicine, and states and licensing boards need a framework within which to develop regulations.

Although the six C's provide one way to instrumentalize the notion of trust; there are likely to be others. The key is to focus on the elements of the patient-physician relationship that promote good medical care. For some technologies there may be clear advantages at some levels that must be

81. Deborah L. Shelton, *Group Warns of Unlawful Web Sales of Fertility Drugs*, AM. MED. NEWS, July 10, 2000, at 34, available at <http://www.ama-assn.org/public/journals/amnews/amnews.htm>.

82. Sean P. Haney, *Pharmaceutical Dispensing in the "Wild West": Advancing Health Care and Protecting Consumers Through the Regulation of Online Pharmacies*, 42 WM. & MARY L. REV. 575, 589-90 (2000).

83. *Id.*

balanced against clear disadvantages at other levels. For example, although e-mail may be a better way to communicate competent information than the telephone, it has fewer confidentiality safeguards.⁸⁴ In general, physicians, judges, licensing boards and other regulators will have to balance the pros and cons in determining whether the use of a particular technology is appropriate in a particular circumstance. The balancing can be done proactively, with standards set by professional medical organizations, licensing boards or even legislatures.⁸⁵ Alternatively, standards may be set retroactively through court decisions.⁸⁶ Clearly a number of unanswered questions remain with respect to responsibilities for oversight and enforcement, but they are beyond the scope of this article.

V. IMPLICATIONS FOR PRACTICE

Although additional development of the “ethical standard of care” suggested here is necessary before drawing any definitive conclusions, initial negative reactions to e-medicine may have been unwarranted. First, the technologies themselves clearly are not ethical or unethical—it is only their use that can be characterized as such. Second, even from a use perspective, when utilized in conjunction with a pre-existing traditional patient-physician encounter, these new forms of electronic communications appear to have significant benefits over the older forms, such as the telephone. Finally, there appear to be significant potential benefits from using certain technologies apart from a pre-existing relationship, as long as physicians remain aware of the limitations and take steps to minimize problems.

That being said, the following are some general recommendations. First, it is imperative that patients be clearly informed about the range and limits of electronic communication tools. Although a number of authors have suggested applying the formal legal doctrine of informed consent in this setting,⁸⁷ it is not necessary. Certainly we do not require that a patient sign a consent form before engaging in a telephone conversation or conducting a face-to-face office visit. Likewise, the creation of additional paperwork for already overburdened patients and physicians in the way of an “Internet or e-mail consent form” is

84. Spielberg, *supra* note 57, at 270.

85. See, e.g., Medical Board of California, *Internet Prescribing: Ordering Prescriptions Through the Internet? Buyer Beware!*, at <http://www.medbd.ca.gov/buyerbeaware.htm> (last visited Sept. 14, 2001); Colorado State Board of Medical Examiners, *Guidelines Regarding Prescribing for Unknown Patients*, Policy 40-9 (Nov. 16, 2000), available at <http://www.dora.state.co.us/Medical/Policy40-9.htm> (last visited Sept. 14, 2001).

86. This is a less appealing option since it creates many of the same disincentives as the traditional malpractice system due to uncertainty. Moreover, courts are less familiar with ethical guidelines and may not apply them appropriately.

87. See, e.g., Alissa R. Spielberg, *On Call and Online: Sociohistorical, Legal, and Ethical Implications of E-mail for the Patient-Physician Relationship*, 280 JAMA 1353, 1356-57 (1998).

not necessary.⁸⁸ Rather, physicians may want to create informational materials for patients regarding e-mail or Internet communications. How and when to use the medium in question (for example, that it is not to be used for emergencies—similar to the recorded telephone warning most physicians place on their office lines; and who will respond—physician, nurse or other), response rate times and cautions about confidentiality are all important information that should be conveyed to patients. In addition, any billing practices must be explained up front. Although consent forms are an acceptable method of documentation, physicians may choose to notify patients via a written letter or simply post information in waiting rooms. The American Medical Informatics Association and AMA suggest that discussions with patients regarding consent to use e-mail communications be documented in the medical record.⁸⁹ Regardless of the method chosen for documentation, physicians are well-advised to include a generic message, explaining these issues, on websites⁹⁰ as well as an addendum to all e-mail communications.

In addition, physicians should be trained in the appropriate use of electronic communication media. Independent practices, hospitals and other institutions should set guidelines for use of different technologies that are disseminated to medical staff and to patients. Physicians should be encouraged to use technologies in appropriate settings and be trained in their applications, as well as, their limitations.

Finally, efforts should be made to promote access to useful technologies, particularly for underserved populations.⁹¹ As one article aptly notes, although electronic communication technologies have the potential to reduce health care disparities, “those who have preventable health problems and lack health insurance coverage are the least likely to have access to such technologies.”⁹² Another article stresses the vast differential between access to computer technologies in academic health centers compared with inner-city clinics and

88. For a general discussion of consent forms see BERG ET AL., *supra* note 6, at 188-207.

89. Beverley Kane & Daniel Z. Sands, *Guidelines for the Clinical Use of Electronic Mail with Patients*, 5 J. AM. INFORMATICS ASS'N 104, 107 (1998); American Medical Association, AMA Policies related to Computer-Based Patient Records and Electronic Medical Records, H-478.997 *Guidelines for Patient-Physician Electronic Mail*, available at <http://www.ama-assn.org/ama/pub/category/2906.html> (last visited Sept. 20, 2001).

90. See Margaret Winker et al., *Guidelines for Medical and Health Information Sites on the Internet: Principles Governing AMA Web Sites*, 283 JAMA 1600 (2000).

91. Chemene Robinson et al., *Internet Access and Use Among Disadvantaged Inner-City Patients*, 281 JAMA 988 (1999); Mollyann Brodie et al., *Health Information, The Internet, and The Digital Divide*, 19 HEALTH AFF. 255, 255 (2000) (noting that despite the fact that “the Internet is already a useful vehicle for reaching large numbers of lower-income, less-educated, and minority Americans . . . a substantial digital divide continues to characterize computer and Internet use, with lower-income blacks especially affected”).

92. Thomas R. Eng et al., *Access to Health Information and Support: A Public Highway or a Private Road?*, 280 JAMA 1371, 1371 (1998).

the potential for these new technologies actually to widen the schism between the wealthy and the poor with respect to health care.⁹³ Paradoxically, if more equal access to the technologies is achieved, there is a risk that our medical care system will become even more imbalanced, with the wealthy buying access to face-to-face encounters and others having to rely on electronic communications. Nonetheless, given the great disparities in the provision of medical care currently, focus on alternative mechanisms to provide care to populations who lack access to basic health care seems warranted despite such future risks.

VI. CONCLUSION

Using ethics to evaluate e-medicine has a number of potential benefits. First, like discussions of cyberlaw, discussions of cyberethics focus our attention on a novel area and may provide new insight into ethics standards more generally.⁹⁴ This may have implications for the use of ethics standards in regulating the practice of medicine overall.⁹⁵ Second, we may find that new ethics standards must be developed to accommodate new technologies. This is similar to arguments made in the legal arena that telemedicine requires new legal standards of evaluation.⁹⁶ Although it is possible that new ethics standards may have to be developed to accommodate new practices, I argue instead that current ethics standards are adaptable and that the ethical values underlying traditional patient-physician relationships will provide a sufficient mechanism for evaluating new electronic relationships. Finally, ethics standards are fairly well developed and accessible to both physicians and other regulators. Although additional clarification may be necessary, such as done here, in general a focus on the important aspects of a physician-patient relationship should be familiar (at least to health care providers) and met with little resistance.

93. Helen Burstin, *Traversing the Digital Divide*, 19 HEALTH AFF. 245, 245 (2000).

94. See Lawrence Lessig, *The Law of the Horse: What Cyberlaw Might Teach*, 113 HARV. L. REV. 501 (1999) (arguing that although there may be no specialized "law of the Internet" there is something to be learned by examining the legal regulation of cyberspace).

95. The author plans to address this topic in a later article.

96. See, e.g., Lynette A. Herscha, *Is There a Doctor in the House? Licensing and Malpractice Issues Involved in Telemedicine*, 2 B.U. J. SCI. & TECH. L. 8 (1996) (suggesting a national reasonable telemedical doctor standard of care for malpractice analysis, telemedicine practice parameters promulgated by medical groups and legislatures, and congressionally assembled regional tribunals to determine if malpractice claims merit going to trial); Heather L. Daly, *Telemedicine: The Invisible Legal Barriers to the Health Care of the Future*, 9 ANNALS HEALTH L. 73, 92-93, 104-05. Daly suggested an international telemedicine standard of care since geography is "irrelevant in the world of telemedicine." *Id.* at 104. Daly also suggested a mutual recognition international licensing system between countries of equal-quality health care systems. *Id.* at 92-93.

Electronic media are neither ethical nor unethical in and of themselves. Physicians and regulators should consider their use as technical tools, but be aware of potential effects on relationships with patients. The Internet revolution may well change the way medicine is practiced, if it has not already. Whether or not this is good depends on physicians understanding what is important in a patient-physician relationship and the effect of the new technologies on that relationship.

