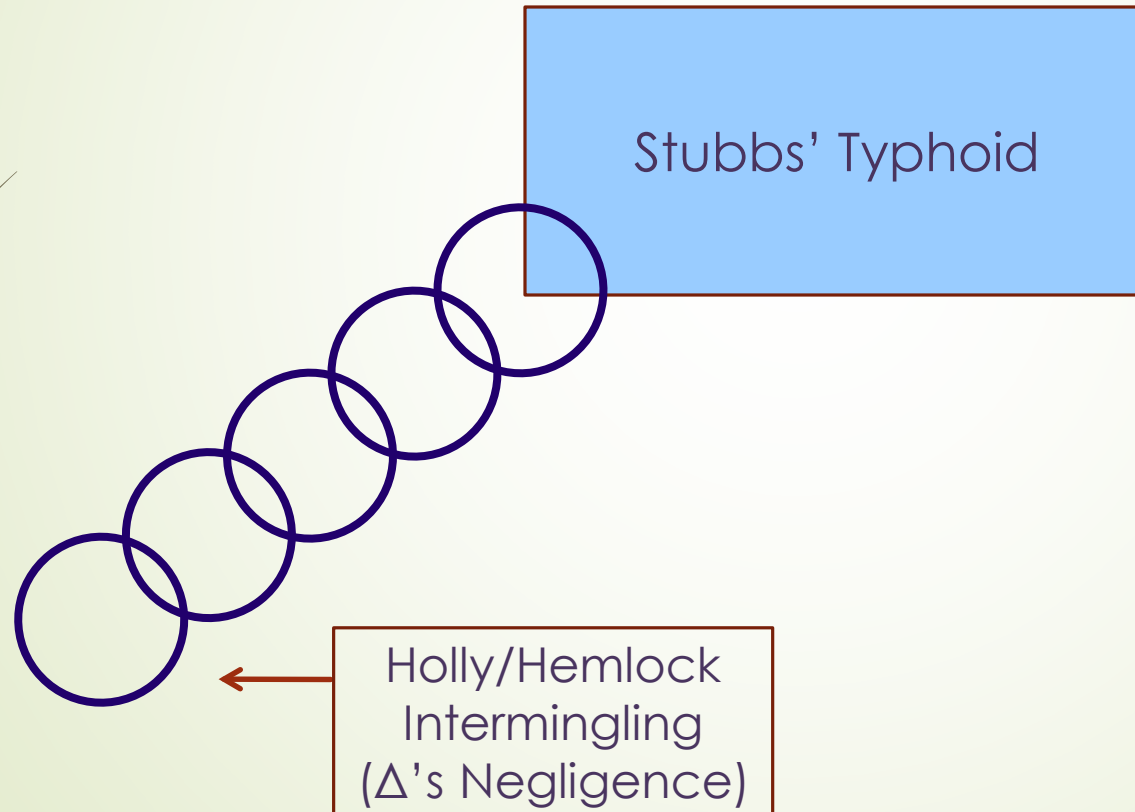


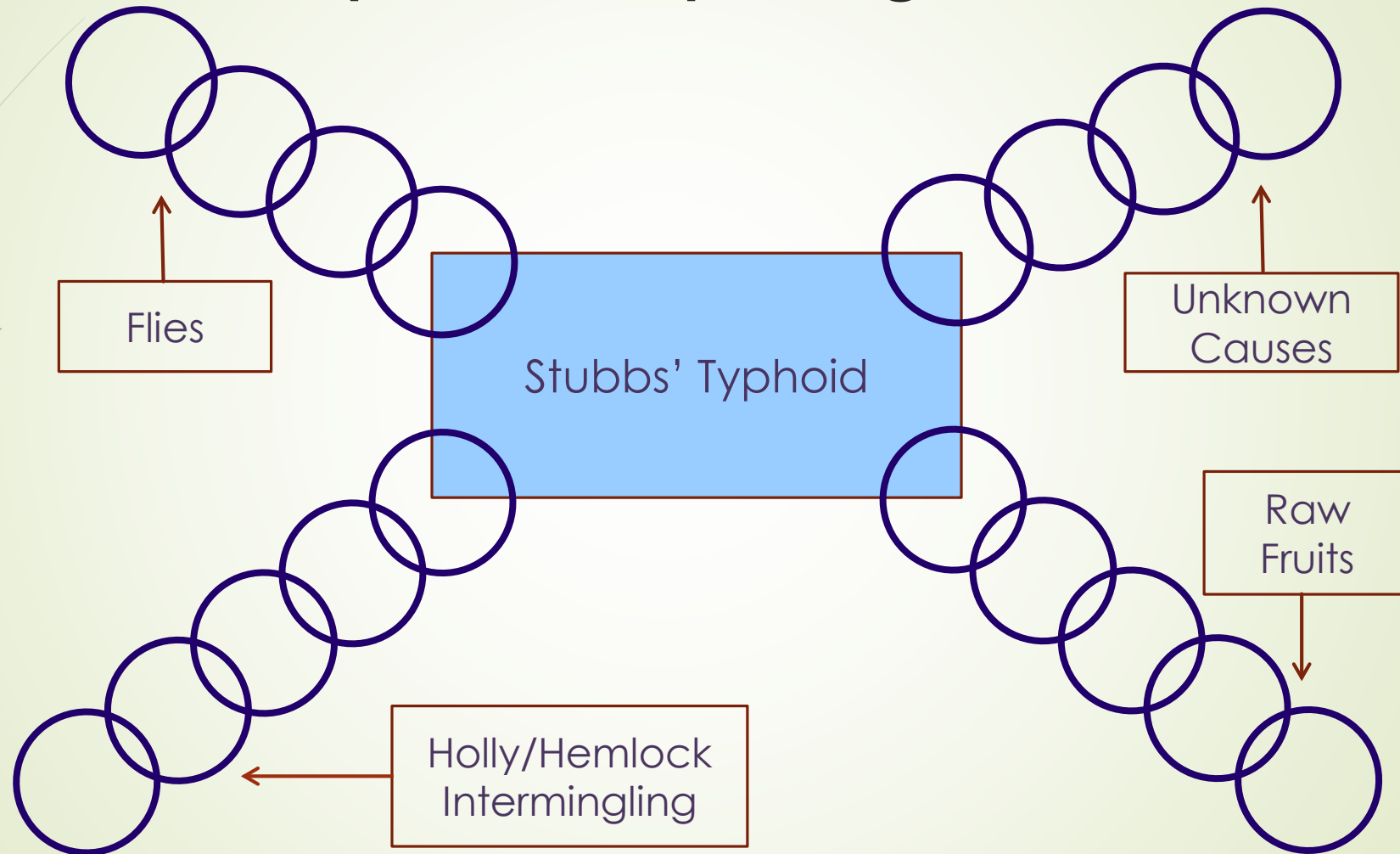


**PANEL 1**  
**New Technologies**  
**and Science in**  
**Tort Practice**

# A MODEL FOR CAUSATION



# Multiple Competing Causes



# STUBBS' STATISTICS

- 1) 223 Typhoid cases in 1910; excess of 58 over prior years
  - 2) 180 of those cases occurred in the 3 months (Aug., Sept & Oct.) following intermingling
  - 3) 58 others drank intermingled water and contracted typhoid
  - 4) One-third of typhoid cases were in Stubbs' water district
- 1) What else happened in Rochester that year?
  - 2) What was the chronological distribution of disease in other years?
  - 3) A Numerator without a denominator
  - 4) What proportion of the population lived in Stubbs's water district?

# The Development of Epidemiology (Statistical Investigation of the Cause of Disease)

- ▶ Forerunners in 19<sup>th</sup> century; most famously John Snow's study of Cholera in London
- ▶ Development of principles guiding study design and interpretation of data not until post-World War II.
- ▶ "Framingham Study" of heart disease begun in 1949
- ▶ Salk polio vaccine largest study ever involving over one million school children
- ▶ Salk study makes an appearance in an early case that employed epidemiology,

# Samuel D. Estep, *Radiation Injuries and Statistics*, 59 Mich. L. Rev. 259 (1960)

- ▶ An article well ahead of its time, recognizing
  - ▶ The difficulties of competing causes
  - ▶ The consequences of long latency periods
  - ▶ The problematics of using statistical evidence for particular cases
  - ▶ Distinguishing agents that merely accelerate the occurrence of a disease
- ▶ How many courts have cited this article since it was published?

0

# BURSTING THE *FRYE* MYTH

Before *Daubert*, courts in civil cases did almost no screening of the substance of experts' opinions deferring to any expert who presented with appropriate credentials.

Not until the Agent Orange and Bendectin litigations of the late 1970s and 1980s did *Frye* make an appearance in civil cases.



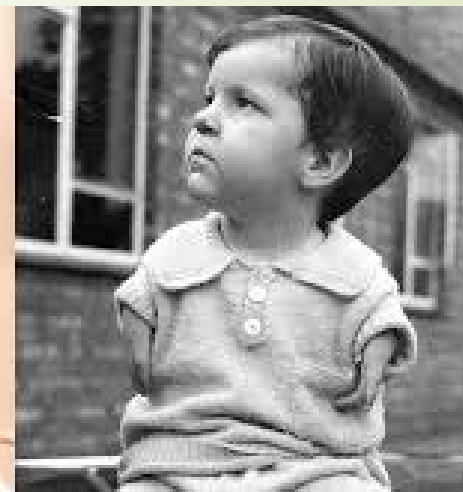
# The Laissez Faire Approach to Expert Testimony

7

- ▶ *Cigarettes*: [P]laintiff's expert stated that causation existed in his opinion and that is not only sufficient, it also requires no further examination.
- ▶ *MER/29*: P's expert, a doctor, testified: "with a reasonable amount of medical certainty that [P's cataracts and other adverse events] were caused by the taking of MER/29; he relied on 'medical literature' and 'conversations' that many persons who developed skin and hair changes like Roginsky's after taking MER/29 also developed cataracts." That, declared, Judge Friendly was sufficient for leaving the issue to the jury
- ▶ *Salk Vaccine*: "it was impossible to prove that any individual case was caused by vaccine" Nevertheless, this evidence "does not preclude a finding by the jury that the polio contracted by plaintiffs was vaccine induced"



8





# Agent Orange

- Embracing epidemiology for addressing causation
- Carefully analyzing those studies as to their implications for dioxin as a cause of veterans' and their families' maladies
- Appreciation for the necessity of attending to specific causation when epidemiologic (statistical) evidence of causation is employed to prove causation
- Most importantly, expressing skepticism about expert testimony: Calling for "careful scrutiny" in toxic tort cases where "speculative scientific hypotheses" "create a need for robust screening of experts."
- Reviving *Frye*, Judge Weinstein used it as the tool to rule out plaintiff's experts because they were "insufficiently grounded grounded in any reliable evidence."

# The Two Roads Taken in Bendectin

11



- 1) Judge Thomas Penfield Jackson: The scientific (epidemiologic) evidence “fails to demonstrate Bendectin’s teratogenicity” and thus JMOL for defendant was proper.
- 2) In a number of other cases, the courts focused on plaintiff’s expert witnesses’s opinion on causation and employed *Frye* to rule them inadmissible.

# The Nadir of Judicial Confrontation with Scientific Evidence: *Brock v. Merrell Dow Pharmaceuticals, Inc.*

- 1) "Courts have not always been so willing to analyze the reasoning employed by experts to reach their conclusions."
- 2) The three sources of error in epidemiology studies: 1) random error; 2) bias and 3) confounding

## *Brock*: The Magic Potion of Confidence Intervals

Fortunately, we do not have to resolve any of the above questions, since the studies presented to us incorporate the possibility of these factors by use of a *confidence interval*. The purpose of our mentioning these sources of error is to provide some background regarding the importance of confidence intervals.



on of confidence intervals to cure these sources

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## The Irony of *Brock*, 874 F.2d at 309:

Ultimately, the “correctness” of our decision that there was insufficient evidence presented by plaintiff on the issue of whether Bendectin caused Rachel Brock's limb reduction defect to enable a jury to draw a reasonable inference may be just a matter of opinion, but hopefully the reasoning below will persuade others of the insights of our perspective.

# Daubert

- ▶ The trial court relied on the state of epidemiologic record and prior cases, including *Brock* to conclude that plaintiff could not meet her burden of production on causation
- ▶ The court of appeals, relying on *Frye*, dismissed the methodology of the plaintiffs' experts, ruling they could not testify on causation
- ▶ By relying on *Frye*, the Ninth Circuit teed up the case for Supreme Court consideration on whether the FRE displaced *Frye* as the standard for determining the admissibility of expert testimony



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17



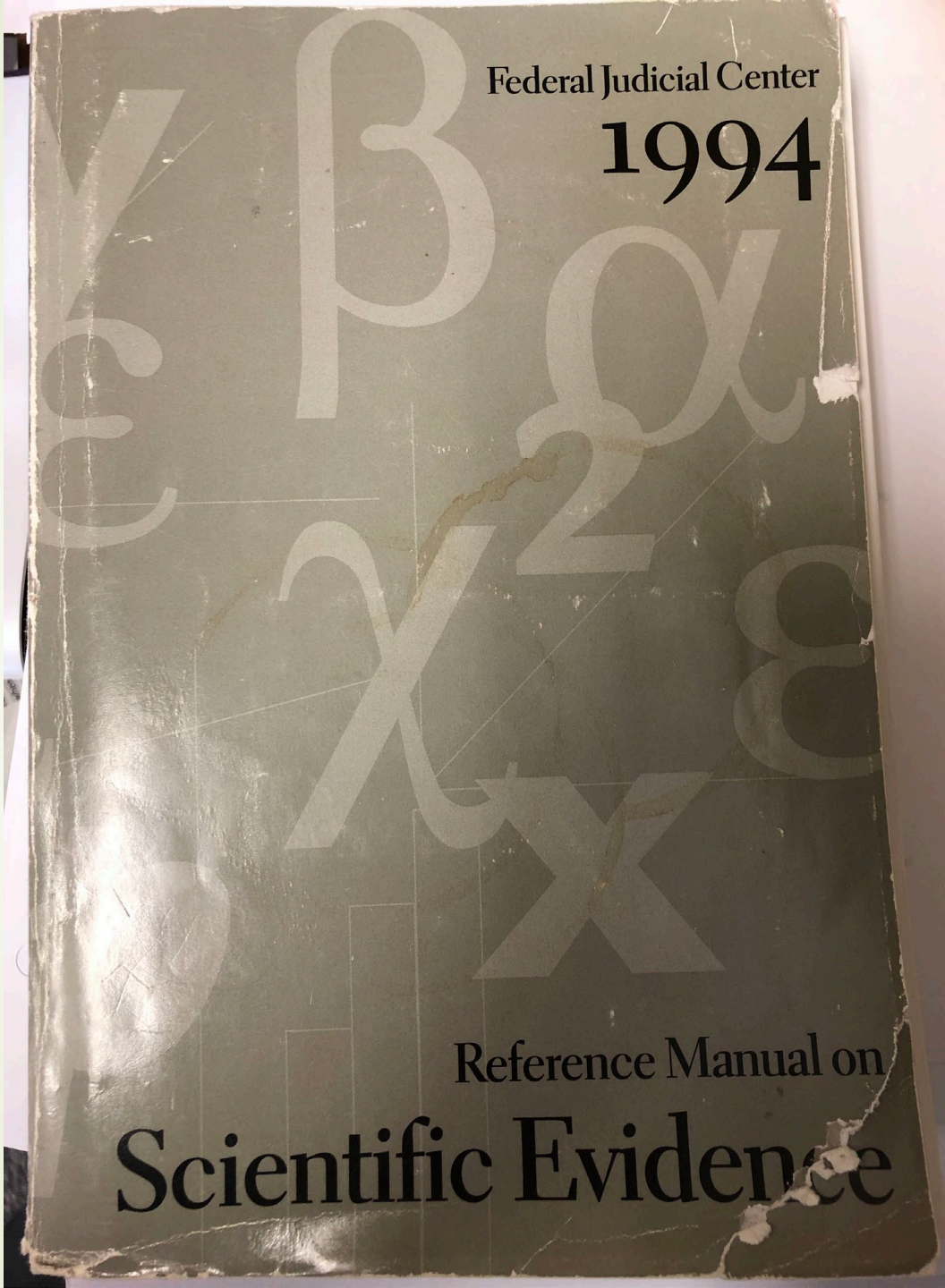
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# The Two Roads Taken in Bendectin





Federal Judicial Center

1994

Reference Manual on

Scientific Evidence



# The Reference Manual on Scientific Evidence (NAS & FJC 3d ed. 2011)

The Admissibility of Expert Testimony, 11  
How Science Works, 37  
Reference Guide on Forensic Identification Expertise, 55  
Reference Guide on DNA Identification Evidence, 129  
Reference Guide on Statistics, 211  
Reference Guide on Multiple Regression, 303  
Reference Guide on Survey Research, 359  
Reference Guide on Estimation of Economic Damages, 425  
Reference Guide on Exposure Science, 503  
Reference Guide on Epidemiology, 549  
Reference Guide on Toxicology, 633  
Reference Guide on Medical Testimony, 687  
Reference Guide on Neuroscience, 747  
Reference Guide on Mental Health Evidence, 813  
Reference Guide on Engineering, 897

# The Common Law of Epidemiology

- However, failure to control for every conceivable potential confounder does not necessarily render the results of an epidemiological study unreliable. See *id.*; see also [Bazemore, 478 U.S. at 400, 106 S.Ct. 3000](#)
- [T]he [Bradford Hill] factors are guidelines. See [Wagoner, 813 F. Supp. 2d at 803–04; Testosterone Replacement Therapy, 2017 WL 1833173, at \\*11.](#)
- The “ruling in” step of a differential diagnosis involves creating a list of causes that are generally capable of causing the disease. ([Clausen v. M/V NEW CARISSA, supra, 339 F.3d at pp. 1057-1058.](#))
- The “best evidence of causation in toxic tort actions” is grounded in epidemiology, [Rider v. Sandoz Pharmaceuticals Corp., 295 F.3d 1194, 1199 \(11th Cir. 2002\),](#)

*General Electric v. Joiner*: “too great an analytical gap between the data and opinion”

Too great an analytical gap =  
Insufficiency of the evidence



<b>Sufficiency Analysis?</b>	
<i>Yes</i>	53
<i>Ambiguous</i>	23
<i>No</i>	11
<i>Other</i>	1

*I.e., Sixty percent of courts' ruling on a Daubert motion examined the scientific evidence to determine if it would permit a reasonable jury to find causation.*

# The Two Roads Taken in Bendectin



You've come a long way, baby.

**Virginia Slims.**  
This is the one cigarette made just for women.  
The Virginia Slims that the lady experts never smoke.  
With the lush Virginia Slims women's line.



# DOCKET ALARM

Feb. 2020



# About



**Michael E. Sander**  
Founder / Managing Director

- Software engineer
- IP Litigator
- Docket Alarm Founder



**Fastcase**  
Parent Company

- Acquired Docket Alarm Jan. 2018
- Leading legal research engine
- 800,000 Attorney Users



Track



Search



Analytics



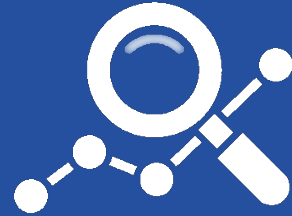
API



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Analytics



API



# Legal Analytics





# Legal Analytics

Mining court decisions and dockets to extract statistical answers to complex legal questions



# Legal Analytics

what are my chances of winning?

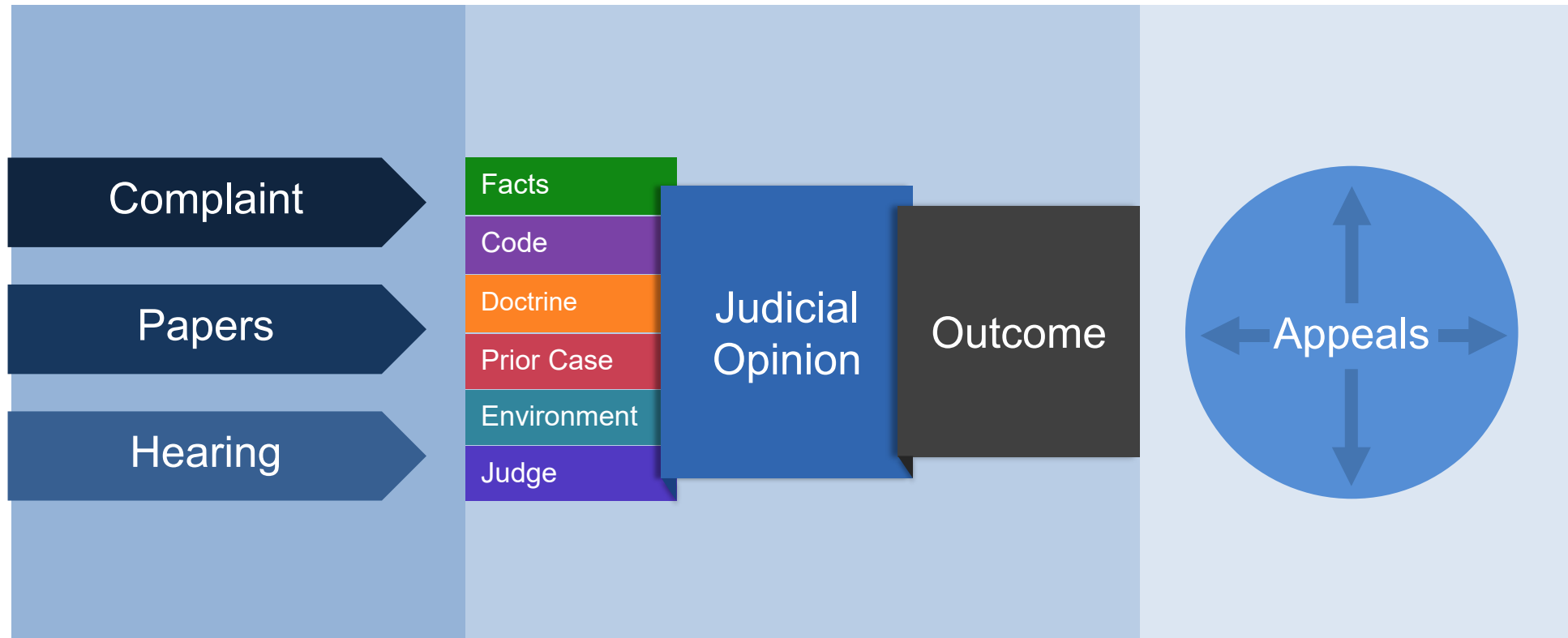
which judges are the most favorable?

how often does a party settle?

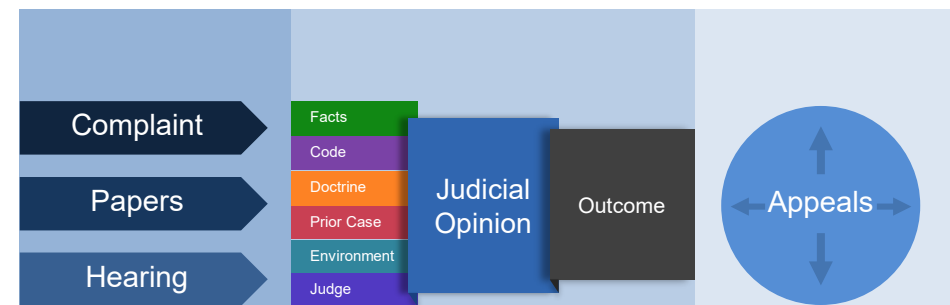
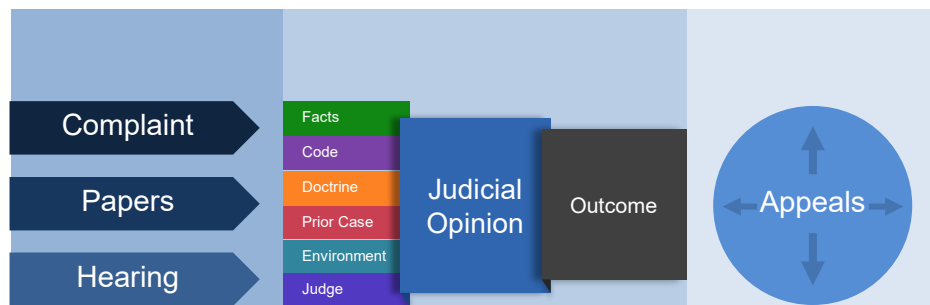
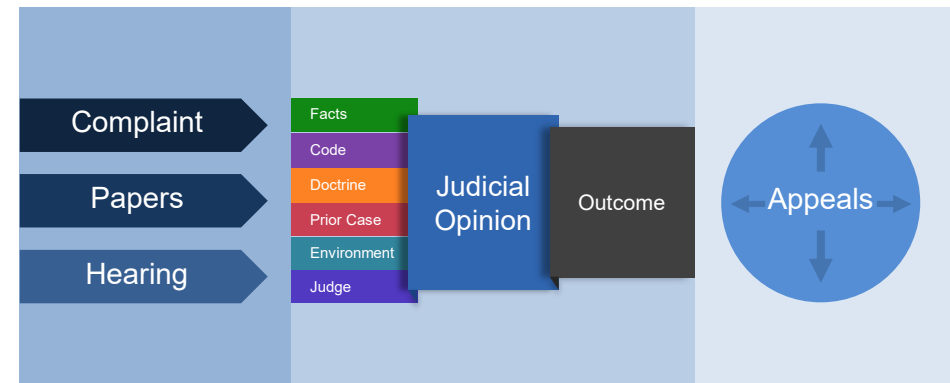
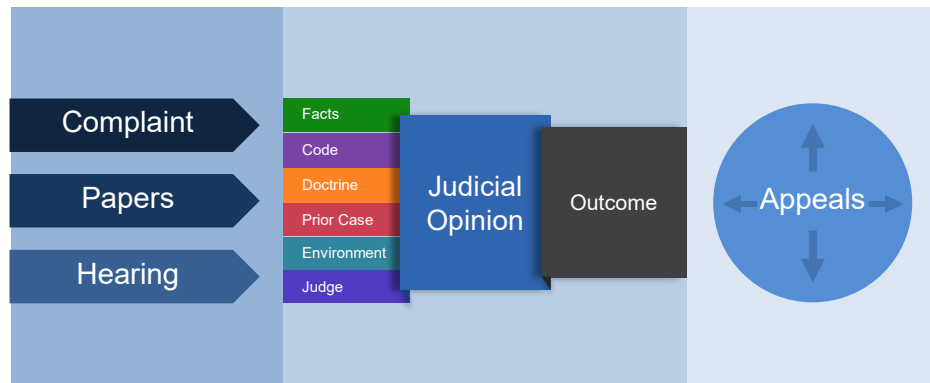
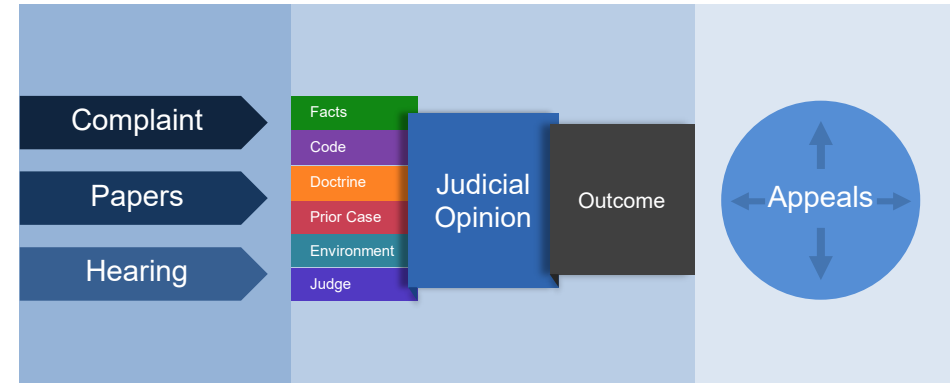
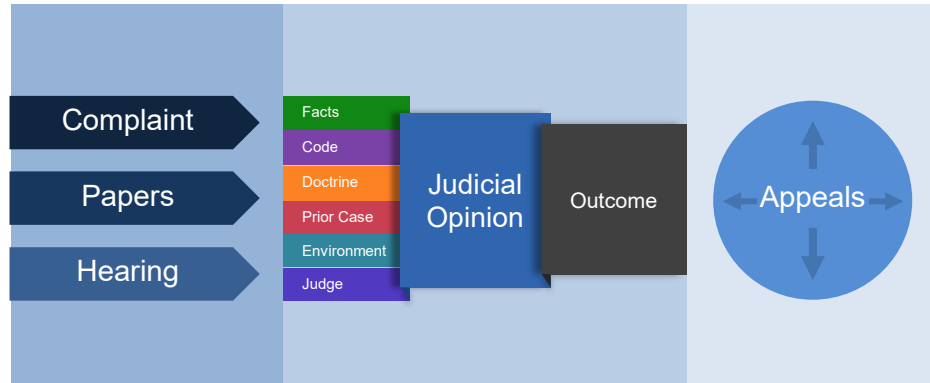
when do cases settle?

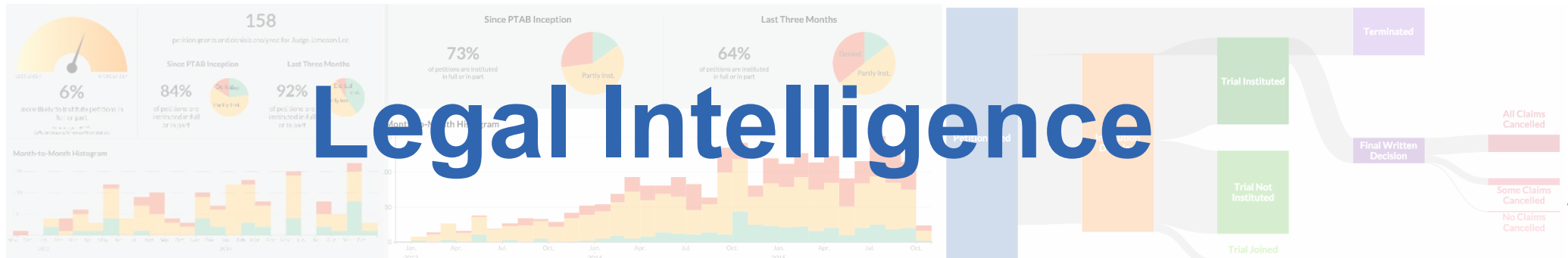
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# Analyzing a Case



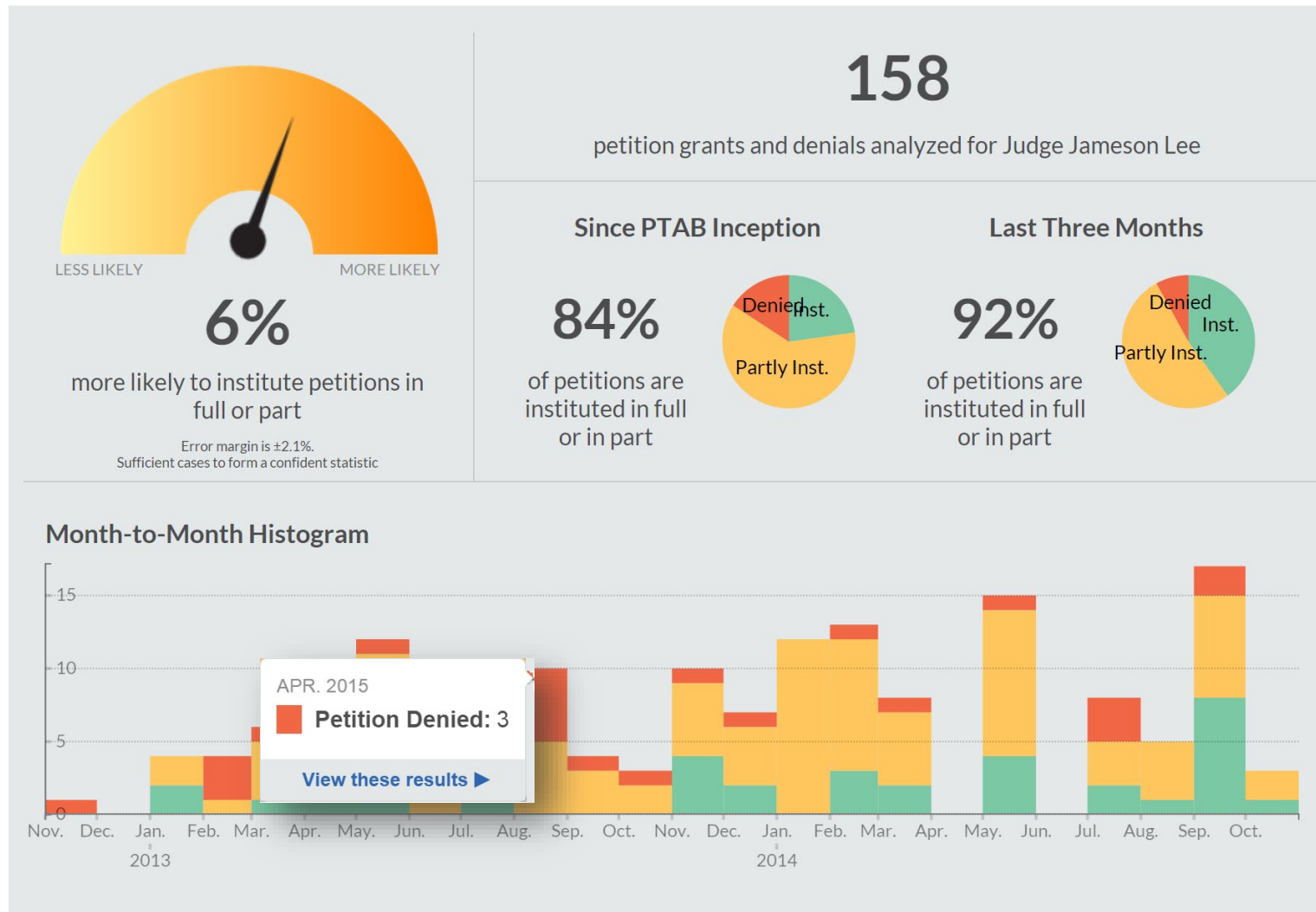
# Data Aggregation





# Analyzing Judicial Behavior

## Judicial Profile for a Judge



# Data Backed Decisions Choosing Effective Counsel

## Law Firm Ranking

NO. OF PROCEEDINGS ▼	PARTY TYPE	TOP TECH CENTER ▼	INST. RATE ▼	CLAIM CANC. RATE ▼
Fish & Richardson 361		3600 Transportation, e-Commerce, Construction & Agriculture	76%	71%
Sterne, Kessler, Goldstein & Fox 353		2600 Communications	74%	71%
Finnegan, Henderson, Farabow, Garrett & Dunner 340		2600 Communications	68%	74%
Oblon, Spivak, McClelland 196		2100 Computer Arch., Software & Information Security	79%	82%
Wilmer Cutler Pickering Hale 193		2800 Semiconductors, Electrical & Optical	88%	83%
Sidley Austin 186		2400 Networks, Cable, & Cryptography	52%	81%
Baker Botts 169		2600 Communications	75%	93%
Haynes and Boone 160		2800 Semiconductors, Electrical & Optical	90%	89%
Foley & Lardner 149		2800 Semiconductors, Electrical & Optical	79%	68%



# Tort Analysis

Connecticut State  
Superior Court

*Motion for Summary Judgment + Trial*



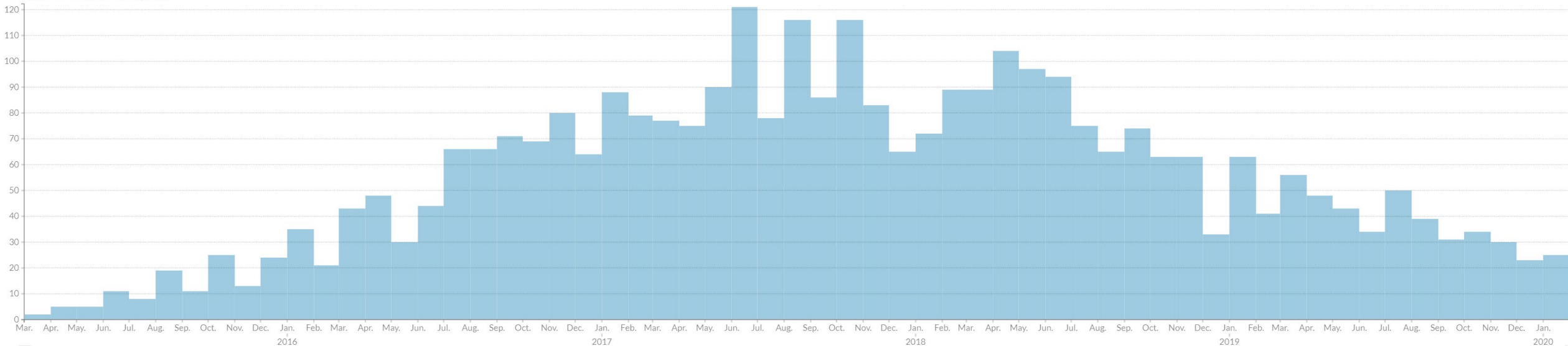
# The Data Set

- **Connecticut State, Superior Court**
- **Cases Filed 2015 or Later**
- **Tort Cases**
- **With a Summary Judgment Motion (“MSJ”)**

# What Questions Can We Answer

# Over 3200 Motions for Summary Judgment

Month-to-Month Histogram

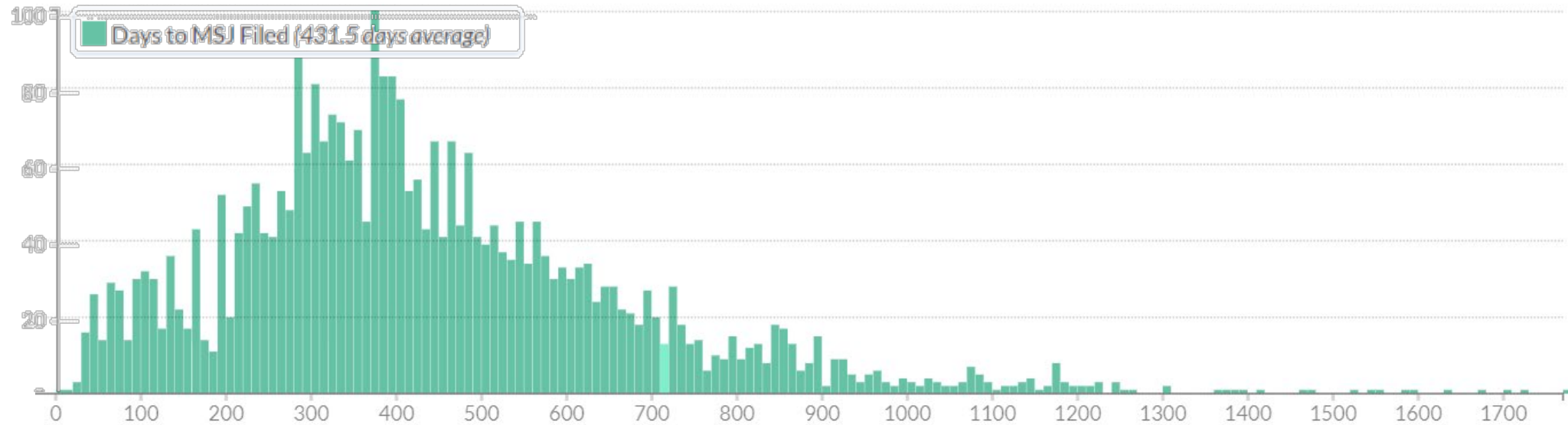


[Clear Date Filter](#)

Mar. 1, 2015 to Jan. 28, 2020

Motion for Summary Judgment: Filed

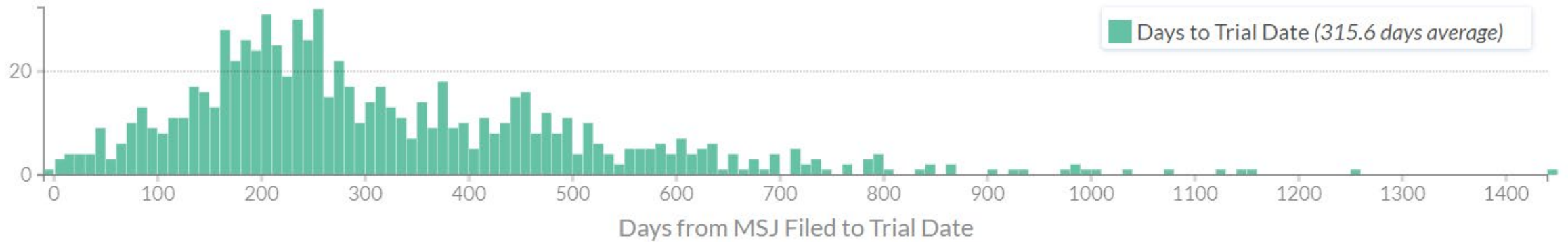
# ~15 Months to File MSJ



Motion for Summary Judgment: Filed – Histogram of When Filed

# ~10 Months from MSJ Filed to Trial

Time to Trial Date



Days from Motion for Summary Judgment Filed to Trial

# Party Analytics

- Who files MSJs the most?
- When do they file?
- Delay?
- Do they go to trial?

# Top MSJ Filers

NO. OF CASES ▼	PARTY TYPE ▼	TRIAL RATE ▼
Metropolitan Life Insurance Company 90	100% Defendant	23%
Union Carbide 85	100% Defendant	27%
Imo Industries 73	100% Defendant	25%
Goulds Pumps 72	100% Defendant	25%
Ingersoll-Rand Company 64	100% Defendant	27%
Warren Pumps 64	100% Defendant	22%
Georgia Pacific 52	100% Defendant	9.6%
City of Bridgeport 50	100% Defendant	24%
Bayer Cropscience 49	100% Defendant	22%
Carrier 49	100% Defendant	18%

Top Parties in Tort Cases in CT since 2015 where a MSJ was filed, with percentage that go to trial

# Average Time to File of top MSJ Parties

Name	Average Days to File
Metropolitan Life Insurance Company	650.9
Union Carbide	598.0
Imo Industries	695.2
Goulds Pumps	686.0
Ingersoll-Rand Company	725.8
Warren Pumps	704.0
Georgia Pacific	573.1
<b>City of Bridgeport</b>	<b>321.4</b>
<b>Bayer Cropscience</b>	<b>735.9</b>
Carrier	670.6





# Other Answers in this data

which judges go to trial most often?

how long until trial?

what are the top plaintiff/defendant firms?

when do cases settle?

...

# Trials by Case Type

Case Type	No. Cases w/ MSJ	No. w/ Trials	Rate
Torts - Assault and Battery	59	8	13.56%
Torts - Motor Vehicle (Small Claims)	7	1	14.29%
<b>Torts - Malpractice - Legal</b>	<b>106</b>	<b>17</b>	<b>16.04%</b>
Torts - False Arrest	5	1	20.00%
Torts - All other	932	214	22.96%
Torts - Fire Damage	26	6	23.08%
Torts - Defective Premises - Public - Snow or Ice	179	43	24.02%
Torts - Defective Premises - Private - Snow or Ice	537	135	25.14%
Torts - Defective Premises - Public - Other	420	108	25.71%
Torts - Defamation	33	9	27.27%
Torts - Defective Premises - Private - Other	696	195	28.02%
Torts - Animals - Dog	138	39	28.26%
Torts - Malpractice - All other	20	6	30.00%
Torts - Products Liability - Other than Vehicular	202	66	32.67%
Torts - Animals - Other	3	1	33.33%
<b>Torts - Malpractice - Medical</b>	<b>130</b>	<b>45</b>	<b>34.62%</b>

Med-Mal Cases go to trial at 2X the rate of Legal Mal

# The Electronic Lawyer

Richard L. Marcus

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## Recommended Citation

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# THE ELECTRONIC LAWYER

*Richard L. Marcus\**

## I. INTRODUCTION

The organizers of this conference have asked us to reflect on future challenges for the legal profession.<sup>1</sup> I begin with an image from popular culture. Anyone who has seen the movie *Michael Clayton* has seen one vision of the future (or possibly contemporary) American lawyer.<sup>2</sup> In the movie, George Clooney plays the title role as a lawyer who works for a 600-lawyer New York law firm that is acting as the “fixer” for a large agricultural products company sued for allegedly causing the deaths of small farmers in the Midwest. The head of the litigation department, who is in charge of the case, “gets religion” when he discovers incriminating documents in the client’s files, and declares that he will bring down the company. Michael Clayton is the law firm’s fixer, and his job is to rein in the wayward litigation chief. But that proves difficult, and the client resorts to illegal means to contain things.

As one surveys the possibilities and challenges of the organized American bar during the coming decades, *Michael Clayton* might be one vision (or nightmare) to contemplate.<sup>3</sup> In a way, the film illustrates the dilemma that Dean Kronman addressed sixteen years ago in his book *The Lost Lawyer*.<sup>4</sup> He contrasted the contemporary role of American lawyers with the image of the sage advisor of old, a professional who truly gave direction to the client and acted on some level as a moral compass. Dean Kronman’s lawyer was anything but a fixer.

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\* Horace O. Coil ('57) Chair in Litigation, University of California, Hastings College of Law. I am indebted to Jesse Basbaum, Hastings class of 2010, for research assistance in connection with this Article, and to Hastings for a Summer Research Grant partly used for this Article.

1. This Article builds on my comments during the Fourteenth Annual Clifford Symposium on Tort Law and Social Policy at the DePaul University College of Law on April 4, 2008. The Symposium was entitled *The Challenge of 2020: Preparing a Civil Justice Reform Agenda for the Coming Decade*.

2. MICHAEL CLAYTON (Warner Brothers Pictures 2007).

3. I note that I am not the first to latch onto the movie as fodder for law review analysis. See Thomas L. Shaffer, *Business Lawyers, Baseball Players, and the Hebrew Prophets*, 42 VAL. U. L. REV. 1063, 1063 n.1 (2008) (invoking *Michael Clayton*).

4. ANTHONY T. KRONMAN, *THE LOST LAWYER: FAILING IDEALS OF THE LEGAL PROFESSION* (1993).

Kronman mourned that the modern lawyer, in contrast, has become “an accomplished technician” without “a wisdom that lies beyond technique.”<sup>5</sup> Lawyers are now one-dimensional rather than serving as broad-based guides for their clients.<sup>6</sup>

My focus is narrower than Dean Kronman’s; I focus on the role of products depending on electricity in this supposed transformation. In *Michael Clayton*, electronic technology is pervasive. In the modern lawyer’s life, it is also pervasive. It is certainly tempting to say that electronic technology is a prime cause—or at least a critical facilitator—of the role of the lawyer today. To the extent that one focuses on big law firms (like the fictional one in *Michael Clayton*), the role of technology has been a longstanding feature of legal practice. Thus, Professors Galanter and Palay recognized in 1991 that “[t]he emergence of the big firm is associated with the introduction of new office technologies,”<sup>7</sup> and they quoted a lawyer who wrote in 1914 that the introduction of the telephone “completely revolutionized” methods of transacting legal business.<sup>8</sup>

Surely the variety of electronic gadgets the Electronic Lawyer now possesses far outstrips those available to the 1914 attorney. Lawyers now employ, rely upon, and to some extent are captives of cellphones, BlackBerries (also known to some as “CrackBerries”), instant messaging, instantaneous electronic research, word processing, electronic filing, and a myriad of other gadget-facilitated activities. Dean Kronman recognized that the introduction of the computer placed pressure on his sage lawyers by reducing turn-around time and curtailment time for introspection.<sup>9</sup> The introduction of additional gadgets in the fifteen years since Kronman wrote has surely accelerated the trend.

Against this background, I intend to offer some thoughts about where these technological developments may lead and their possible effect on the legal profession.<sup>10</sup> Of necessity, this sketch will be impressionistic, speculative, and general. I begin with a comparison to the medical profession, which may be undergoing transformative

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5. *Id.* at 2.

6. *See id.* at 307–09.

7. MARC GALANTER & THOMAS PALAY, TOURNAMENT OF LAWYERS: THE TRANSFORMATION OF THE BIG LAW FIRM 7 (1991).

8. *Id.* (quoting THERON G. STRONG, LANDMARKS OF A LAWYER’S LIFETIME 396 (1914)).

9. *See* KRONMAN, *supra* note 4, at 302–06.

10. This work builds on earlier work. *See* Richard Marcus, *The Impact of Computers on the Legal Profession: Evolution or Revolution?*, 102 Nw. U. L. REV. 1827 (2007) (examining the extent to which the introduction of computers has altered what lawyers do).

changes due in part to electronic technology.<sup>11</sup> I then turn to a variety of aspects of legal practice and consider the ways in which the Electronic Lawyer may differ from her predecessors. One possibility is that computers might themselves replace lawyers as providers of legal services, but this does not seem imminent.<sup>12</sup> At the same time, the electronic law office has evolved far beyond the law office of the mid-twentieth century, with attendant implications for law practice.<sup>13</sup> Moreover, the profession itself may be moving towards a two-tier reality, although the impact of electronic devices in furthering that trend is doubtful.<sup>14</sup> But the extensive reach of electronic communications in legal representation of clients may place greater stresses on our balkanized system of lawyer regulation.<sup>15</sup> Electronic communications present new challenges on a number of other fronts: the attorney-client privilege, the growing scope of citizen surveillance, and the manner in which law schools train new lawyers.<sup>16</sup> Despite all these potential impacts, however, I believe we must be cautious about a sentimentalized attitude toward the various golden ages of legal practice in the past, and skeptical about the extent to which technology has threatened them or made them disappear.<sup>17</sup> Accordingly, it seems to me that the Electronic Lawyer actually has more in common with her non-electronic predecessor than she may appreciate.

## II. THE ELECTRONIC DOCTOR

Medicine . . . would have been seen only a century ago to have been largely outside the realm of technology, whereas today it is one of the most thoroughly technological fields any of us will encounter.<sup>18</sup>

One way of approaching the Electronic Lawyer is to consider a comparable vision of another profession—the electronic doctor. It is often said that doctors and lawyers are the best established professions,<sup>19</sup> so there is the possibility of parallelism.<sup>20</sup>

There are at least some parallels. For example, a study of “physician discontent” suggested that “lawyers are no more satisfied, and

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11. See *infra* notes 18–63 and accompanying text.

12. See *infra* notes 64–107 and accompanying text.

13. See *infra* notes 108–135 and accompanying text.

14. See *infra* notes 136–148 and accompanying text.

15. See *infra* notes 149–175 and accompanying text.

16. See *infra* notes 176–238 and accompanying text.

17. See *infra* notes 239–270 and accompanying text.

18. ROBERT FRIEDEL, *A CULTURE OF IMPROVEMENT: TECHNOLOGY AND THE WESTERN MILLENNIUM 1* (2007).

19. See, e.g., C. WRIGHT MILLS, *WHITE COLLAR: THE AMERICAN MIDDLE CLASSES* 113 (1951) (referring to “the old professions, such as medicine and law”).

20. For further discussion of this possible parallelism, see Marcus, *supra* note 10.

perhaps are more dissatisfied, than physicians.”<sup>21</sup> For lawyers, the dynamics of competition and law firms’ pursuit of ever-increasing profits—along with declining loyalty from corporate clients—seem to contribute to attorney anomie,<sup>22</sup> while for doctors the advent of managed care may loom large. At least some in the legal world have begun to focus on the “new medical marketplace” and the difficulties presented when patients are approached solely as consumers;<sup>23</sup> other similar forces may be at work in the medical profession, as well.

Other parallels seem to exist. Those who teach in law schools are familiar with the phenomenon of rising student debt, with its attendant constraints on the career choices of graduates who express a preference for public interest law but nonetheless flock to higher paying law firm jobs. For similar reasons, medical students are reportedly flocking to higher paying specialties and forsaking family medicine.<sup>24</sup> Another similarity is the growing concern with life-work balance in the medical profession. In law firms, such concerns have also grown in importance.<sup>25</sup> Similarly, we are told that “U.S. medicine is in the middle of a cultural revolution, as young physicians intent on balancing work and family challenge the assumption that a doctor should be available to treat patients around the clock.”<sup>26</sup> This shift is contribut-

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21. David Mechanic, *Physician Discontent: Challenges and Opportunities*, 290 J. AM. MED. ASS’N 941, 941 (2003).

22. See Marcus, *supra* note 10, at 1851–52.

23. See, e.g., Mark A. Hall & Carl E. Schneider, *Patients as Consumers: Courts, Contracts, and the New Medical Marketplace*, 106 MICH. L. REV. 643 (2008) (analyzing the courts’ reaction to the advent of managed care and the overcharging of patients who do not have insurance).

24. See Natasha Singer, *For Top Medical Students, Appearance Offers an Attractive Field*, N.Y. TIMES, Mar. 19, 2008, at A1 (reporting on the growing popularity of dermatology and plastic surgery, which are the most competitive fields to enter). While the dermatology and plastic surgery fields are becoming increasingly competitive, family and internal medicine enjoy much less popularity among top medical students:

Until recently, saving skin did not have the cachet of saving lives. Doctors in other fields jokingly dismissed dermatology as a province of red-spot diseases that could not really be cured, but weren’t going to kill patients. Twenty-five years ago, the fiercest competition among medical students was for internal medicine and general surgery.

*Id.*

25. See, e.g., Ross Todd, *Eyeing the Door*, AM. LAW., Aug. 2008, at 113 (reporting that, in light of the workload of junior partners, today’s associates “think that they *could* make partner, [but] they’re not sure they *want* to”); Emmett Berg, *Stop the Partnership Track, I Want to Get Off*, CAL. LAW., Aug. 2008, at 12 (reporting that “the younger generation’s desire for better work/life balance” has taken the shine off the partnership track); Marisa McQuicken, *Rebels with a Cause: Students Seek a More Reasonable Law Firm Life—Before They Even Start*, LEGAL TIMES, Sept. 3, 2007, at 26 (describing resistance among law students to a “law firm culture bereft of work-life balance”).

26. Jacob Goldstein, *As Doctors Get a Life, Strains Show*, WALL ST. J., Apr. 29, 2008, at A1.

ing to the appeal of some higher paying positions such as dermatology, which also offer more predictable work hours.<sup>27</sup>

But one must be careful not to emphasize the parallels between medicine and law too forcefully. For example, we are also told that problems of life-work balance are deterring medical students from pursuing careers in academic medicine.<sup>28</sup> Although law schools may sometimes have difficulty persuading promising candidates to work for lower salaries than law firms offer, it is hard to believe that many candidates who are in law practice are put off by the long hours required of law professors; indeed, one lure of a law faculty job is the desirable work-life balance it makes possible. Much as law schools may try to ease the tuition burden on graduates who take public interest jobs, law schools are not likely to do the same for those who pursue professor positions. But at least some medical schools are pursuing tuition breaks for students in hopes of prompting them to pursue academic jobs.<sup>29</sup> Even more remarkable from the law school perspective is the seeming suggestion that the medical profession needs more academics to conduct research on topics such as new treatments.<sup>30</sup> One need not agree with Judge Edwards that law professors and practicing lawyers are on divergent paths<sup>31</sup> to recognize that nobody would pretend that the American bar would be hamstrung in providing legal representation if deprived of the research output of the American legal professoriate.

So any parallels must be examined carefully. For purposes of our focus, one might think at first that the electronic doctor would be less different from predecessors than the Electronic Lawyer. For one thing, lawyers frequently provide advice to a client who is an inani-

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27. *Id.* Goldstein reports:

Many [new doctors] are eschewing fields such as internal medicine, pediatrics, and family medicine, choosing instead specialties that offer both higher pay and more predictable work hours. In family medicine, for example, hundreds of medical residency positions go unfilled every year. But competition for slots in dermatology residencies is fierce.

*Id.*

28. See Shirley S. Wang, *Cleveland Clinic's Medical School to Offer Tuition-Free Education*, WALL ST. J., May 15, 2008, at D3 (quoting an expert who described the demands of academic careers in medicine and said that "[s]ome students feel that those kinds of demands would be difficult for them to meet while also trying to obtain some sense of work-life balance").

29. See *id.* (reporting on plan of Cleveland Clinic to offer tuition-free medical education to encourage top students to enter academic medicine).

30. See *id.* (quoting medical school dean who says that "there is a need for more [academics] in the profession").

31. Harry T. Edwards, *The Growing Disjunction Between Legal Education and the Legal Profession*, 91 MICH. L. REV. 34 (1992) (decrying the extent to which legal scholarship and legal education have lost interest in what actual lawyers and judges do).



mate entity like a corporation or a governmental body. Doctors, on the other hand, only provide professional services to human patients. Lawyers' advice often depends on documentary materials (or electronically stored information), and they may have no need to "examine" a human being to provide advice. In many instances, lawyers seek both "diagnostic" and "treatment" information in a law library, not from the client. Doctors' advice is *about* a human patient, and although much diagnostic and treatment information can come from medical literature, human input from the actual patient seems crucial to making that information pertinent to this case.

Despite all this, it may be that the transformation wrought by the electronic doctor looms larger than that produced by the advent of the Electronic Lawyer. In facilitating a medical diagnosis, electronic devices have long been important, and they now have an even more prominent role. Perhaps the X-ray machine was the first electronic device widely used for diagnosis, but it has been joined by a wide variety of others, particularly as the computer age has become more pervasive. Indeed, if one asked whether a doctor would be more likely justified in reaching a diagnosis by relying solely on electronic devices or solely on personal interaction with the patient, it might well be that the electronic route would be the more reliable one.

One illustration is the possibility of online interaction to replace the face-to-face doctor-patient relationship of the past. Increasingly, doctors may offer treatment to patients in remote locations through online interaction rather than face-to-face examination.<sup>32</sup> This possibility may be enhanced if cellphones could cheaply be turned into a digital microscope that would help with remote diagnosis.<sup>33</sup> This development raises the possibility that "[t]he mobile phone may join the stethoscope and the thermometer as an indispensable piece of medical kit."<sup>34</sup> When one considers that an estimated 3.3 billion peo-

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32. See, e.g., Erin Allday, *Online Visits a Boon for Far-Off Patients*, S.F. CHRON., May 27, 2007, at B1. This article describes doctors treating "virtual" patients—real people who will never meet face-to-face with their physician" at the University of California San Francisco, adding that the UCSF program "is modeled on an online consultation program at the Cleveland Clinic in Ohio, which was one of the first medical centers in the world to offer interactive medical services on the Internet." *Id.*

33. See *Doctor on Call*, ECONOMIST, May 17, 2008, at 100 (describing the development of CellScope, a device that can be attached to a mobile phone to turn the phone into a microscope, permitting transmittal of an image showing individual white and red blood cells that can be used to identify such parasites as the one that causes malaria); see also *Sticky Fingers*, ECONOMIST, Aug. 9, 2008, at 77 (reporting that desorption electrospray ionization may enable doctors to diagnose patients by using this method to scan a portion of their skin).

34. See *Doctors on Call*, *supra* note 33, at 100.

ple—half the world population—now possess cellular phones,<sup>35</sup> the changes that the electronic doctor confronts begin to become apparent. Moreover, there are efforts afoot to use implanted sensors to monitor people with certain medical conditions and identify problems before the patient is aware of them.<sup>36</sup> And the electronic doctor can use the Internet to obtain input from other electronic doctors on tough cases.<sup>37</sup> Indeed, the electronic doctor may be too enamored of such devices; the *New York Times* reports on what it calls a “trend in American medicine” that “faith in innovation, often driven by financial incentives, encourages American doctors and hospitals to adopt new technologies even without proof that they work better than older techniques.”<sup>38</sup>

Once the data on the patient are in, however, even the electronic doctor might revert to the role of the doctor of old in reaching a diagnosis, albeit with more information. But the electronic data increase may have changed the nature of the doctor’s diagnostic role also. Twenty years ago, informed observers reported that “increased biomedical knowledge and technological capability have increased rather than reduced the complexity and difficulty of the clinician’s task.”<sup>39</sup> Surely the explosion of medical knowledge since then has magnified this task. Perhaps the computer is necessary also to evaluate all this information. More than sixty years ago, a psychologist suggested that a computer would be better in making treatment decisions for a patient than a doctor.<sup>40</sup> Two decades ago, it was said that “medicine is almost certainly the largest, non-military area of application for both traditional and knowledge-based decision technologies.”<sup>41</sup> More than thirty years ago, efforts to use artificial intelligence for diagnosis were

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35. See *Halfway There*, *ECONOMIST*, May 31, 2008, at 68 (“Sometime in the next few months, the number of mobile phones in use will exceed 3.3 billion, or half the world’s population.”).

36. *Telemedicine Comes Home*, *ECONOMIST TECH. Q.*, June 7, 2008, at 28, 28–30 (describing use of sensors).

37. See Jessica E. Vascellaro, *Social Networking Goes Professional*, *WALL ST. J.*, Aug. 28, 2007, at D1 (describing a networking site for doctors that some 25,000 doctors visit regularly to consult with colleagues about diagnoses and treatments).

38. Alex Berenson & Reed Abelson, *Weighing the Costs of a Look Inside the Heart*, *N.Y. TIMES*, June 29, 2008, at 1 (focusing on the possible overuse of CT scanners for detailed scans of the heart).

39. *PROFESSIONAL JUDGMENT: A READER IN CLINICAL DECISION MAKING 2* (Jack Dowie & Arthur Elstein eds., 1988) [hereinafter *PROFESSIONAL JUDGMENT*].

40. See *Logical Endings*, *ECONOMIST*, Mar. 17, 2007, at 85 (describing Theodore Sarbin’s suggestion in 1947 that “a doctor is really just a machine whose purpose is to make actuarial judgments about the best treatment for a patient,” and urging that consideration be given to replacing the doctor with a computer).

41. John Fox, *Formal and Knowledge-Based Methods in Decision Technology*, in *PROFESSIONAL JUDGMENT*, *supra* note 39, at 226.

beginning.<sup>42</sup> One study found that by the 1980s computerized diagnoses were more accurate than those of doctors,<sup>43</sup> and more than a decade ago it was asserted that “[t]he physician became a purveyor of technology.”<sup>44</sup> Perhaps it will soon be true that a cellphone in the field could feed information to the computer in the “doctor’s office,” which in turn would generate a proposed treatment and communicate it back to the cellphone in the field—truly the electronic doctor!

Treatment itself might also differ with the electronic doctor. Thus, we are told that “[f]ans of genomics have long argued that decoding genomes one person at a time would revolutionise health care by leading to ‘personalised’ medicine, in which doctors match the treatment to the individual.”<sup>45</sup> Some surgeons are being supplanted by computer-controlled robots: “In prostate surgery, it is rapidly becoming unusual for a urologist to operate without using” a robot.<sup>46</sup> In May 2008, a robot was used to remove a brain tumor for the first time.<sup>47</sup> “Robots are more precise with a scalpel or laser than a person could ever be. And they can enter the body through a small ‘keyhole’ incision no bigger than 2 cm (0.8 inches), which means that surgery is less invasive. That improves the prognosis and speeds convalescence.”<sup>48</sup>

Even something so simple as using computers to keep medical records might cause a major change in the delivery of medical care. The *New York Times*, for example, reports on efforts to persuade New York to shift to using computers to prepare patient records by using as an example a doctor who graduated from medical school in 1962 and regards the shift to computerized record-keeping to be “as profound a

42. Arthur S. Elstein & Georges Bondage, *Psychology of Clinical Reasoning*, in PROFESSIONAL JUDGMENT, *supra* note 39, at 109, 118–19; see also Jerome R. Kassirer, *A Report Card on Computer-Assisted Diagnosis—The Grade: C*, 330 NEW ENG. J. MED. 1824, 1824 (1994) (reporting that use of computers to diagnose medical conditions began in the 1950s).

43. F.T. de Dombal, *Computer-Aided Diagnosis of Acute Abdominal Pain: The British Experience*, in PROFESSIONAL JUDGMENT, *supra* note 39, at 190, 196 (cautioning that although the data indicated that computerized diagnoses were correct almost twice as frequently as the admitting doctor, the difference was not as dramatic as it seemed).

44. Kenneth I. Shine, *The Physician as Health Agent*, 729 ANNALS N.Y. ACAD. SCI. 73, 73 (1994).

45. *Getting Personal*, ECONOMIST, June 21, 2008, at 76; see also *Signs of a Long Life*, ECONOMIST, June 28, 2008, at 87 (describing a new procedure that may enable doctors to predict the diseases that will afflict given patients before any symptoms have appeared).

46. Barnaby J. Feder, *Prepping Robots for the O.R.*, N.Y. TIMES, May 4, 2008, Sunday Business, at 1.

47. *Tiny, Careful Cuts*, ECONOMIST, June 21, 2008, at 91 (adding that “[r]obots should soon be able to perform cardiac surgery without the trauma and the potential risk of breaking open the chest and plugging the patient into a heart-bypass machine”).

48. *Id.*

shift in the way he treats patients as advances in diabetes drugs.”<sup>49</sup> Another article in the *Times* says that “there is broad agreement that moving patient records into the computer age . . . is essential to improving care and curbing costs.”<sup>50</sup> This report is fairly gushing in praise of the impact of computerized records on patient care:

A paper record is a passive historical document. An electronic health record can be a vibrant tool that reminds and advises doctors. It can hold information on a patient’s visits, treatments, and condition, going back years, even decades. It can be summoned with a mouse click, not hidden in a file drawer in a remote location and thus useless in medical emergencies.

Modern computerized systems have links to online information on best practices, treatment recommendations and harmful drug interactions. The potential benefits include fewer unnecessary tests, reduced medical errors and better care so patients are less likely to require costly treatment in hospitals.<sup>51</sup>

Altogether, then, there could be a fundamental challenge to the role of doctors in the era of the electronic doctor. At least some doctors foresee such a challenge in medical practice. In his 2007 book *How Doctors Think*, Professor Jerome Groopman of Harvard Medical School argues that there has been a change in the way doctors approach their work.<sup>52</sup> He was prompted to write the book by the concern that “the next generation of doctors was being conditioned to function like a well-programmed computer that operates within a strict binary framework.”<sup>53</sup> As a proponent of doctors thinking “outside their boxes,” Dr. Groopman says that medical students are now “taught to follow preset algorithms and practice guidelines in the form of decision trees,” and that “algorithms discourage physicians from thinking independently and creatively.”<sup>54</sup> In essence, he sees the electronic doctor as a threat to important aspects of medical practice:

Electronic technology can help organize vast clinical information and make it more accessible, but it can also drive a wedge between doctor and patient when used in this way to increase “efficiency.” It also risks more cognitive errors, because the doctor’s mind is set on filling in the blanks on the template. He is less likely to engage in

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49. Anemona Hartocollis, *Looking to Private Records for Public Health Goals*, N.Y. TIMES, Dec. 30, 2008, at A18.

50. Steve Lohr, *Health Care that Puts a Computer on the Team*, N.Y. TIMES, Dec. 27, 2008, at B1.

51. *Id.*

52. JEROME GROOPMAN, *HOW DOCTORS THINK* (2007).

53. *Id.* at 6.

54. *Id.* at 5.

open-ended questioning, and may be deterred from focusing on data that do not fit on the template.<sup>55</sup>

The role of computers is central to this evolution. For example, Dr. Groopman reports that, after the Food and Drug Administration approved a computer-aided diagnostic system for use by radiologists, there was an increase in false positives.<sup>56</sup> “This demonstrates the power of technology, particularly computer-based, in shaking the confidence of a specialist in his initial diagnosis.”<sup>57</sup> “Scoring schemes are proliferating in all branches of medicine,” he says, and many young doctors “look to classification schemes and algorithms to think for them.”<sup>58</sup> There is, for example, “a fundamental schism in the field of oncology, between those who are driven almost entirely by data and those who are willing to treat patients outside of proven protocols.”<sup>59</sup>

Responding to the challenges of practicing medicine in the computer era, Dr. David Blumenthal wrote in 2007 that health information technology is “a potentially transformative force that ultimately will bring about a radical redesign of the processes by which care is delivered.”<sup>60</sup> Five years before, he wrote that the information revolution, coupled with other developments like healthcare consumerism and the rise in alternative providers of healthcare, could mean that “the medical profession might be headed, if not for extinction, at least toward a profoundly diminished role and status in ministering to society’s ills.”<sup>61</sup> But he concluded then that the medical profession “does not seem headed for extinction—like some quaint species of the era between Hippocrates and Gates.”<sup>62</sup>

In sum, the advent of the electronic doctor might produce revolutionary results in medical practice, whether for good or ill.<sup>63</sup> Although

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55. *Id.* at 99; see also Anne Armstrong-Coben, Op-Ed., *The Computer Will See You Now*, N.Y. TIMES, Mar. 6, 2009, at A27 (arguing that “the computer depersonalizes medicine”).

56. *Id.*

57. *Id.*

58. *Id.* at 238.

59. GROOPMAN *supra* note 52, at 199.

60. David Blumenthal & John P. Glaser, *Information Technology Comes to Medicine*, 356 NEW ENG. J. MED. 2527, 2527 (2007).

61. David Blumenthal, *Doctors in a Wired World: Can Professionalism Survive Connectivity?*, 80 MILBANK Q. 525, 526 (2002).

62. *Id.* at 543.

63. A different slant, not pursued here, is that medical “advances” during the last century have not produced desirable results, even though they have increased longevity in much of the world and eliminated or very substantially reduced mortality due to certain infections. This attitude is a feature of the contemporary critique of the idea of progress. For a collection of essays on this topic, see generally PROGRESS: FACT OR ILLUSION? (Leo Marx & Bruce Mazlish eds., 1996). For a very effective rebuttal of the application of this skepticism to medicine, see Leon Eisenberg, *Medicine and the Idea of Progress*, in PROGRESS: FACT OR ILLUSION?, *supra*, at 45.

it is not possible for those of us who are outside that profession to be certain about the importance of these developments in medical practice, the possible impact of the electronic doctor can at least provide a comparison to the Electronic Lawyer's impact on legal practice. And though the world of the Electronic Lawyer is pervasively affected by electronic gadgets, it does not seem presently likely to be affected in so fundamental a fashion as some doctors foresee for the electronic doctor.

### III. THE COMPUTER AS LAWYER?

We have seen that some fear that the role of the doctor will be transformed by the advent of electronic devices. Of course, dire predictions about the transformation of medical care are just predictions. But could something similar lie in lawyers' futures?

One reaction is that lawyers' work is fundamentally different from doctors' work, and therefore immune to similar technological pressures. Professor Groopman's book *How Doctors Think*<sup>64</sup> lends some support to that view. It begins with the observation that "[m]y generation [of doctors] was never explicitly taught how to think as clinicians."<sup>65</sup> From his point of view, the problem is that *now* medical students are taught differently, inclining them to take a computer-like approach to medical problems.<sup>66</sup>

Certainly the education of lawyers has not neglected the core question of how they should think about doing their jobs. To the contrary, as made famous in the 1970s book and movie *The Paper Chase*,<sup>67</sup> learning to "think like a lawyer" is a central focus of legal education. That centrality is continually recognized. There is, for example, a 2007 Oxford University Press book on the topic,<sup>68</sup> and there are myriad articles about it.<sup>69</sup> Actually, that inclination in legal education originated a century before Professor Kingsfield's famous line in *The Paper Chase*: "You come in here with a skull full of mush and you

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64. See GROOPMAN, *supra* note 52.

65. *Id.* at 4.

66. See *id.* at 5 (asserting that current-day medical students are "taught to follow preset algorithms and practice guidelines in the form of decision trees").

67. JOHN JAY OSBORN, JR., *THE PAPER CHASE* (1971); *THE PAPER CHASE* (Twentieth Century Fox 1973).

68. ELIZABETH MERTZ, *THE LANGUAGE OF LAW SCHOOL: LEARNING TO "THINK LIKE A LAWYER"* (2007).

69. See, e.g., Stephen Wizner, *Is Learning to "Think Like a Lawyer" Enough?*, 17 *YALE L. & POL'Y REV.* 583 (1998); Kurt M. Saunders & Linda Levine, *Learning to Think Like a Lawyer*, 29 *U.S.F. L. REV.* 121 (1994).

leave thinking like a lawyer.”<sup>70</sup> As Professor LaPiana has shown, Langdell’s case system might best be understood as designed to prepare law students to do what lawyers have to do in court—analyze and apply cases.<sup>71</sup> “The power of the case method to teach legal reasoning thus became its ultimate justification.”<sup>72</sup> Surely computers can’t do what lawyers do?

Actually, it’s not so clear. For one thing, the role of something like the case method is not unique to legal education. Despite Professor Groopman’s report that doctors are not taught how to think,<sup>73</sup> the case method has long existed in medical education also. President Eliot of Harvard approved of Langdell’s innovations in legal education partly because they resembled changes in the Harvard Medical School, where laboratory and clinical work was added to the curriculum—“students learned by doing what professionals did in practice.”<sup>74</sup> In 1910, clinicopathological conferences modeled on Langdell’s case method were introduced at Massachusetts General Hospital.<sup>75</sup> So medical education itself has had something analogous; if that form of clinical analysis can be performed by computers, so might legal analysis.

Perhaps more significantly, the whole notion that legal analysis is distinctive has come under fire in recent years. Some urge that reasoning by analogy is a unique feature of legal reasoning,<sup>76</sup> but others contend that there is nothing special about legal reasoning.<sup>77</sup> Trying

70. *THE PAPER CHASE* (Twentieth Century Fox 1973).

71. See WILLIAM P. LAPIANA, *LOGIC AND EXPERIENCE: THE ORIGIN OF MODERN AMERICAN LEGAL EDUCATION* 70–73, 95–108 (1994) (describing the way in which close analysis of cases became crucial for lawyers at the end of the nineteenth century, partly due to the introduction of the Field Code).

72. *Id.* at 151.

73. See GROOPMAN, *supra* note 52.

74. LAPIANA, *supra* note 71, at 26.

75. David M. Eddy & Charles H. Clanton, *The Art of Diagnosis: Solving the Clinicopathological Exercise*, in *PROFESSIONAL JUDGMENT*, *supra* note 39, at 200, 200 (reporting that clinicopathological conferences “are the offspring of the case method of teaching instituted at the Harvard Law School in the 1870s and introduced to the Massachusetts General Hospital in 1910 by Dr. Richard Cabot”).

76. See, e.g., LLOYD L. WEINREB, *LEGAL REASON: THE USE OF ANALOGY IN LEGAL ARGUMENT* (2005) (arguing that lawyers and judges use analogies, without relying on some general principle extracted from them, as grounds for deciding cases).

77. See, e.g., Richard A. Posner, *Reasoning By Analogy*, 91 *CORNELL L. REV.* 761, 768 (2006) (“Analogies are not reasons . . .”); Larry Alexander, *The Banality of Legal Reasoning*, 73 *NOTRE DAME L. REV.* 517, 517 (1997) (“[T]hinking like a lawyer is just ordinary forms of thinking clearly and well.”); Frederick Schauer & Virginia J. Wise, *Legal Positivism as Legal Information*, 82 *CORNELL L. REV.* 1080, 1082 (1996) (“[C]laims about the distinctive character of legal reasoning appear increasingly implausible—‘thinking like a lawyer’ is a phrase heard less and less these days.”).

to unravel this dispute is far beyond the goals of the current piece, but the existence of the dispute provides reason for caution about thinking legal analysis immune to poaching by computers because of its distinctive nature.

There seems nonetheless some room to argue that the most creative legal work depends on something that it would be difficult for a computer to emulate. Professor Groopman's main objection to the new orientation of medical analysis is that it does not legitimate thinking "beyond the box," which can be crucial to successfully solving some of the most difficult medical diagnostic problems.<sup>78</sup> But assuming that much sophisticated legal analysis is beyond the competence of computers<sup>79</sup> does not mean that most lawyers do that sort of thing most of the time. To the contrary, there is more reason to believe that most lawyers spend most of their time doing legal analysis that is more of the "fill in the blanks" variety. *That* sort of activity might be done with some frequency by a computer.

Richard Susskind, an English legal theorist, announced in a 2000 book that computers will soon be doing that kind of work.<sup>80</sup> Contrary to those who contend that legal reasoning is unique, he asserted that "there is nothing inherent in the process of legal reasoning or in the nature of law that constitutes a theoretical or practical obstacle to the development of rule-based expert systems in law of restricted scope."<sup>81</sup> He forecast that information and the Internet would "fundamentally, irreversibly and comprehensively change legal practice, the administration of justice and the way in which non-lawyers handle their legal and quasi-legal affairs."<sup>82</sup> In his view, "by 2015, the *main* way in which legal service is delivered across the world will be through access to online legal service as opposed to consultation with human lawyers."<sup>83</sup> Most lawyers—like travel agents—are therefore threatened with "disintermediation" because their customers will be able to make their own legal arrangements using computer-based systems without the direct involvement of human professionals.<sup>84</sup>

In this Brave New World for lawyers, then, most Americans would get their legal advice from the legal equivalent of TurboTax. Lawyers

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78. See GROOPMAN, *supra* note 52, at 5.

79. See *infra* notes 95–101 and accompanying text (discussing the difficulties of modeling American lawyers' analysis by computers).

80. See RICHARD SUSSKIND, *TRANSFORMING THE LAW: ESSAYS ON TECHNOLOGY, JUSTICE AND THE LEGAL MARKETPLACE* (2000).

81. *Id.* at 213.

82. *Id.* at viii–ix.

83. *Id.* at 29.

84. See *id.* at 45–46.



could find work for companies that design such computer programs, but (usually) not advising individual clients. At least some legal practices might be ripe for this sort of thing; family law practices or drafting wills come to mind. Recurrent situations might really be easily handled by a properly programmed computer. There have at least been suggestions that computers will threaten other learned professions.<sup>85</sup> Indeed, Milton Friedman once urged that the Federal Reserve Board be replaced by a computer.<sup>86</sup>

It need hardly be emphasized that such a change would be revolutionary. Susskind sugar coats the pill by urging that the main effect will be to provide access to (computerized) legal advice for those who cannot presently afford the human version. And in the UK there seems to be some reason to think this sort of thing could be designed. Susskind reported in 2000 that a program existed that permits a lay person to navigate Scottish divorce law without the assistance of a solicitor or barrister,<sup>87</sup> and some suggest that computers would be adapted to perform other forms of legal problem-solving.<sup>88</sup>

But the likelihood of this sort of revolution happening, or happening soon, seems remote in the U.S. For one thing, some of Susskind's predications already look inaccurate, at least for the U.S. For example, in 2000 he predicted that by 2002 clients will insist on being able to log onto a law firm's website and check the progress of work on their cases, including specifics about tasks being performed or already finished, and that any firm not offering this service will be at a disadvantage.<sup>89</sup> Although by 2009, many American firms probably have

85. See, e.g., IAN AYRES, *SUPER CRUNCHERS* 167 (2007) (arguing that automated decision-making has supplanted bank loan officers and will do the same to other professional jobs); *Hold the Front Page*, *ECONOMIST*, Mar. 8, 2008, at 90, 90 (suggesting that computer programs could "turn editorial decisions into a rational process, rather than an intuitive one").

86. See Hillel J. Einhorn, *Accepting Error to Make Less Error*, in *PROFESSIONAL JUDGMENT*, *supra* note 39, at 181 (citing Friedman comment).

87. SUSSKIND, *supra* note 80, at 210 (describing prototype of an expert system in Scottish divorce law).

88. See, e.g., François Brochu, *The Internet's Effect on the Practice of Real Property Law: A North American Perspective*, 2003(2) *J. INFO. L. & TECH.*, [www2.warwick.ac.uk/fac/soc/law/elj/jilt/2003\\_2/brochu](http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2003_2/brochu).

89. See SUSSKIND, *supra* note 80, at 19–20. The author identifies eight categories of "first generation" client relationship systems:

1. *Status tracking systems.* These enable clients to monitor the status of any matter being conducted on their behalf so that they can determine, for example, what the latest activity has been, on whom the next responsibility falls, or the basic milestones and deadlines for the matter in question.
2. *Financial reporting systems.* These offer clients the facility to find out, in respect of any particular matter, how much time has been recorded, what bills have been rendered so far, the level of outstanding work in progress, the charge-out rates being applied, and other related financial information.

some services along the lines Susskind envisioned for 2002,<sup>90</sup> these stop far short of supplanting the lawyer herself with a computer, and it seems likely that developments along that front have not proceeded at the pace he predicted.<sup>91</sup>

Perhaps more significantly, there remains a legitimate question about the extent to which computers *can* be programmed to perform the sort of analysis that good lawyers provide to clients. To take the TurboTax analogy, it is clear that some of these legal materials have come into existence.<sup>92</sup> And there surely seems to be a market for these materials, given the striking rise in *pro se* litigation in recent years. Thus, we are told that “myriad websites devoted to *pro se* litigation now exist and are accessible to anyone possessing Internet access and the ability to perform a simple search engine query.”<sup>93</sup> At the same time, we are also warned that “the growing availability of

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3. *Contact systems.* So that clients are able to determine the identities, qualifications, and experience of lawyers working on any particular matter, these systems make that information easily available, alongside the ability to search for suitable practitioners for particular classes of work.

4. *Virtual deal rooms and other virtual case rooms.* These are online, secure sites for the posting and accessing of documents pertaining to any particular deal or dispute.

5. *Online archives.* Developed for particular clients, these provide an online collection of all advice, documents, agreements, and other work produced for that client, held in one indexed and easily accessible repository.

6. *Online instruction.* This is a facility to enable law firms to be invited to begin work on new matters without cumbersome, face-to-face procedures or exchanges of formal letters.

7. *Case/matter management services.* A form of project management facility, and often embracing many of the above categories of client relationship system, these enable clients to monitor the flow of individual matters or to assess the collective workload being undertaken by a particular firm.

8. *Client relationship sites.* These are online sites dedicated to the particular relationship between one client and one law firm, being a first port of call for the client wanting access to any of the firm's services.

*Id.*

90. See *infra* notes 125–131 and accompanying text (describing services offered by some American law firms in 2007).

91. For further discussion of the electronic law office, involving services like those listed by Susskind in note 89, see *infra* notes 108–135 and accompanying text.

92. See, e.g., Christine Larson, *A Need for a Will? Often, There's an Online Way*, N.Y. TIMES, Oct. 14, 2007, at 8. Larson describes a service offered by LegalZoom, which offers will-drafting online for a charge of about \$70. *Id.* But this service relies on a LegalZoom employee (not a lawyer) who reviews answers to questions the customer provides online and develops a will based on those answers. *Id.* The article also points out that WillMaker Plus, a program from Nolo Press, experienced an increase of nearly thirty-three percent in sales from 2005 to 2006. *Id.* It also refers to Suze Orman's Will and Trust Kit, which reportedly costs \$17.99. *Id.*

93. Nina Ingwer VanWormer, Note, *Help at Your Fingertips: A Twenty-First Century Response to the Pro Se Phenomenon*, 60 VAND. L. REV. 983, 1007 (2007).

Internet resources can raise important concerns over accuracy and relevance due to the medium's inherent openness."<sup>94</sup>

The diversity of state and local laws, as well as the variety of federal laws and regulations, that must often be considered in the U.S. would make the task of designing a program that reliably could substitute for a knowledgeable lawyer much more difficult than in other countries.<sup>95</sup>

Indeed, it seems that—as currently used by lawyers—computers play a very different role from the one they play in the diagnostic and treatment activities of doctors. For doctors, computers and other electronic devices may provide insights and information that they cannot obtain another way. Thus, the X-ray, CAT scan, and other techniques permit doctors to discern the patient's condition in a way that they could not without the electronic devices. Moreover, electronic devices—including robots that perform surgery—permit doctors to provide treatment in a way, or with a degree of accuracy, that they could not provide without the devices. Some might argue that computers could provide *better* treatment than human doctors.

It does not seem that anyone is arguing that computers can provide *better* legal advice than lawyers, only cheaper advice. Indeed, the nature of computerized support for lawyers seems qualitatively different from that used by doctors. Computerized legal research, for example, is a faster method of locating possibly pertinent legal materials. But the computer is not in a position to assess the importance of the fruits of that research. To the contrary, the very sorts of argument-development skills that the Langdellian method of instruction imparts to lawyers are still needed to construct the legal arguments that the research can be used to support. So, much as computers and other electronic devices have had and will continue to have a major impact on the operation of American law offices,<sup>96</sup> it presently does not seem that they are likely to provide a better substitute for the work of human lawyers.

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94. *Id.* at 1009; see also Terry Carter, *Who's Putting a Price on Free Legal Aid*, A.B.A. J., Sept. 2008, at 32 (describing cybersquatters who divert poor seekers of free legal advice to look-alike sites that charge for advice).

95. This point reappears in relation to the balkanized regulation of American lawyers, for they must increasingly consider the laws of multiple jurisdictions. See *infra* notes 149–175 and accompanying text. The point there is that lawyers nowadays need to be able to analyze the handling of legal issues under the law of several jurisdictions. The point here is similar—that the range of pertinent legal regimes now worth considering complicates the lawyer's task and also the job of designing a computer program that would substitute for a lawyer doing that task.

96. See *infra* notes 108–135 and accompanying text for further discussion of the electronic law office.

The very nature of American adjudication could further complicate the effort of using computers to devise legal arguments. In many countries that rely on detailed codes, it is said that judges have limited latitude for making decisions, and that they ordinarily must apply the code rather automatically.<sup>97</sup> The role of American judges is quite different. They often have some latitude to make decisions based on the circumstances of the particular case—doing “justice”—without slavish application of some statutory or regulatory directive.<sup>98</sup> And they do so in a somewhat intuitive way that could prove highly difficult to emulate in a computer. A recent study of American judges’ actual decisionmaking found that “judges are predominantly intuitive decision makers,”<sup>99</sup> but urged that they move toward what the authors called an “intuitive override” model, in which judicial first impressions are reexamined by deliberation. The authors supported this argument with examples from medical decisionmaking<sup>100</sup> and closed with a quotation from Professor Groopman’s study of how doctors think.<sup>101</sup> Whether American judges will move further toward such a model remains to be seen, but the study underscores the difficulty of modeling some legal issues for resolution by a computer.

Looking into the future, and considering the notion that the capacity of computers tends to increase geometrically, it may be that breakthroughs in computing capacity will at some point permit computers

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97. See, e.g., CARL F. GOODMAN, *THE RULE OF LAW IN JAPAN: A COMPARATIVE ANALYSIS* (2003). Goodman explains that the common-law process of lawmaking “may be viewed as a ‘bottoms up’ system where the law is created (or ‘found’) as a consequence of lawsuits brought by individuals.” *Id.* at 7. Goodman adds:

Unlike the common law system, the civil law system that was developed on the continent of Europe was a system based on an entirely different philosophy. Here was no “bottoms up” system but rather a “top down” system of law making. The “top down” model of lawmaking has a long and honorable tradition. . . . Under the civil law system’s top down model judges were neither as important nor as influential as judges in the common law system.

*Id.* at 8; see also ROBERT A. KAGAN, *ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW* 11 (2001) (contrasting American courts with German and French courts, “where bureaucratically recruited and embedded judges—not the parties’ lawyers and not lay juries—dominate both the evidence-gathering and the decisionmaking processes”).

98. According to Kagan:

Compared to most national judiciaries, American judges are less constrained by legal formalisms; they are more policy-oriented, more attentive to the equities (and inequities) of the particular situation. In the decentralized American legal system, if one judge closes the door on a novel legal argument, claimants can often find a more receptive judge in another court.

KAGAN, *supra* note 97, at 16.

99. Chris Guthrie, Jeffrey J. Rachlinski & Andrew J. Wistrich, *Blinking on the Bench: How Judges Decide Cases*, 93 CORNELL L. REV. 1, 5 (2007).

100. See *id.* at 33 (using a doctor’s diagnosis as an example).

101. See *id.* at 43 (quoting GROOPMAN, *supra* note 52, at 9).

to do something like the analysis of client problems that lawyers do. Even if that proves true, it seems unlikely that computers will also be able to bring creativity to this process; for at least high-end transactions, therefore, human help is likely to remain crucial. Indeed, Susskind recognizes that for such high-end, high-value work, individually tailored legal work will remain the norm, but he sees computers displacing “the standard and repetitive work of our current lawyers.”<sup>102</sup>

For clients needing such standardized legal work, this may be a liberation. Many are presently priced out of the American legal market—hence the growing presence of *pro se* litigants—and it is possible that such breakthroughs will not divert much current legal work from actual lawyers because those who use the legal TurboTax programs of the future already have foresworn lawyers. Nonetheless, there may be considerable fights about unauthorized practice of law if computerized services providing legal advice become more prevalent.<sup>103</sup> For example, Nolo Press, a California concern that produces hard-copy books that assist lay people in handling their own legal problems, got into trouble about unauthorized practice in Texas.<sup>104</sup>

Susskind predicts that lawyers’ monopoly on the provision of legal services will be shattered by the computer,<sup>105</sup> but that has not yet happened. Noting that most state statutes are somewhat vague on what constitutes the practice of law, Professor Hadfield foresees ongoing difficulties for computer-based products:

Consider even a basic consumer product such as the standard-form simple wills, originally in hard-copy books and now packaged in software and online, delivered by entities such as Nolo Press. State bar associations challenged the sale of these products in their state as unauthorized practice of law (UPL). Even though many states have exempted such products from the UPL restrictions, it is a state-by-state process, and the standards vary from state to state. Moreover, in order to stay on the right side of the UPL restrictions and state bar associations, Nolo Press products and similar products must be generic and not intended to tailor solutions to the unique “circumstances or objectives of another person.” More elaborate products that use, for example, artificial intelligence mechanisms to

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102. SUSSKIND, *supra* note 80, at 113.

103. Other and different issues about the impact of technology on authorization to practice law are considered in notes 149–175 and accompanying text.

104. See *In re Nolo Press*, 991 S.W.2d 768 (Tex. 1999) (addressing a dispute arising out of the proceedings by the Texas Unauthorized Practice of Law Committee to investigate the activities of Nolo Press). Nolo Press sought a jury trial on whether it had engaged in the practice of law, but just as the case was going to trial the Texas legislature amended the state’s unauthorized practice statute to exempt books and software. Kathy M. Kristof, *Legal Champion for the Middle Class*, L.A. TIMES, Nov. 18, 2007, at C3.

105. See SUSSKIND, *supra* note 80, at 98–99.

tailor documents or route nonstandard issues into online advisory services or “chat with a lawyer now!” mechanisms are presumably beyond the pale.<sup>106</sup>

At least some examples of such UPL restrictions on computer-based legal assistance can be found.<sup>107</sup>

For the present, then, the computer as lawyer is surely a thing of the distant future, even if the computer as doctor may come to be a current reality sooner and more frequently.

#### IV. THE ELECTRONIC LAW OFFICE

Although the American lawyer may not herself have been supplanted by a computer, her office is hugely dependent on computers for myriad everyday activities from billing to communications to legal research. As noted above, Susskind foresees more aggressive involvement of computers in everyday law firm activities.<sup>108</sup> Even if his forecasts have not yet come true, it is undoubtedly true that computers have affected legal practice in a wide variety of ways.

It also seems that there has been a revolution in practice—particularly of large commercial law firms—in the last generation or so.<sup>109</sup> Since 1970, American law firms have become less and less stable. Law firm partners once retained their firm affiliations for their entire careers, but now laterals frequently shift from firm to firm. Corporate clients once established long-term relationships with given law firms but now play the field, often assigning work on the basis of “beauty contests” consisting of competing presentations by various law firms for specific projects. Law firms have been merging with increasing frequency, creating multi-city (and sometimes multi-national) behemoths with hundreds (and sometimes thousands) of lawyers. Individ-

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106. Gillian K. Hadfield, *Legal Barriers to Innovation: The Growing Economic Cost of Professional Control over Corporate Legal Markets*, 60 STAN. L. REV. 1689, 1724 (2008).

107. See, e.g., *In re Reynoso*, 477 F.3d 1117 (9th Cir. 2007) (upholding an injunction against a company that maintained websites that helped customers prepare bankruptcy petitions and schedules). In *Reynoso*, the court found that the program offered more than mere clerical assistance since it did more than simply insert responses into fields on a form. *Id.* at 1125. The program “determined where (particularly, in which schedule) to place information provided by the debtor, selected exemptions for the debtor and supplied relevant legal citations.” *Id.* Accordingly, although it “express[ed] no view as to whether software alone, or other types of programs, would constitute the practice of law,” the court concluded that the guidance provided by this particular program did constitute practice of law. *Id.* at 1126 n.9. See also Richard F. Mallen & Assocs., Ltd. v. Myinjuryclaim.com Corp., 769 N.E.2d 74 (Ill. App. Ct. 2002) (upholding standing of personal injury lawyers to sue company that provided settlement estimates to people injured in car accidents).

108. See SUSSKIND, *supra* note 80; *supra* note 89 and accompanying text (listing functions that could be provided to clients on a routine basis).

109. For further discussion of these issues, see generally Marcus, *supra* note 10.

ual “partners” no longer enjoy the level of participation or the degree of control they once did, which feeds the tendency of successful lawyers to shop for a better deal with other firms. For at least some lawyers, this regime has produced fabulous financial rewards.

We began by recognizing that technology—the telephone—played an important role in the emergence of those law firms.<sup>110</sup> Technology—enabling varying versions of the Electronic Lawyer—has undoubtedly played a role in the recent changes in law firms. A multinational law firm relies on electronic communications to facilitate its worldwide activities, including virtual “partnership meetings.” The Internet has become a marketing tool. A decade ago, it was a big new thing for a law firm website to attract attention.<sup>111</sup> Now websites are clearly designed to impress potential clients and provide them with marketers’ information. Firms also use the Internet to attract associates with videos and other postings that convey a “fun” image of the firms.<sup>112</sup>

Technology can affect the actual organization of law firms. E-Discovery—responding to discovery requests for electronically stored information—may be fostering the creation of a new layer of lawyer-employees at law firms. Traditionally, the law firm ladder has been fairly clear. The firm hires associates, and either they become partners or leave the firm. This “up or out” approach has been softened with expanded use of “of counsel” or “senior associate” positions, but the essentially tenure-track aspect of initial hiring has not changed. The burden of E-Discovery, however, is prompting some firms to experiment with a new niche of permanent staff attorneys who specialize in this activity.<sup>113</sup> Using staff attorneys could mean lower bills for cli-

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110. See *supra* note 7 and accompanying text (quoting Galanter & Palay).

111. Thus, the San Francisco Recorder ran a story in 1997 reporting that the Orrick law firm was experiencing 5000 hits a week on its website. See *This Week in Recorder History*, S.F. RECORDER, July 9, 2007, at 5.

112. See, e.g., Karen Donovan, *Law Firms Go a Bit Hollywood to Recruit the YouTube Generation*, N.Y. TIMES, Sept. 28, 2007, at C6 (reporting that law firms are creating websites “with the look and feel of YouTube” to persuade law students that the firms “are young-thinking and hip”); Sheri Qualters, *Law Firms Post Online Video Clips to Attract Associates*, S.F. RECORDER, Jan. 23, 2007, at 3 (reporting that Web videos featuring only associates, conceived as a marketing project for clients, are now perceived as a valuable recruiting tool to reach law students as well).

113. See Jill Redhage, *Enlisting Staff Attorneys to Tame Discovery Fees*, S.F. DAILY J., June 23, 2008, at 1 (reporting that the growing burdens of E-Discovery meant that “the work stopped being well received among partnership-track associates” at Bingham McCutchen, and prompted the firm to develop an in-house staff attorney program to do this work, using lawyers who are not on the partnership track); Kellie Schmidt, *Firm to Fill Cheap Seats*, S.F. RECORDER, Nov. 1, 2007, at 1 (reporting that Chicago firm McDermott, Will & Emery responded to the dramatically escalating costs of E-Discovery by creating a new position of staff attorney to deal with this work).

ents because the billing rates of these lawyers are lower than the rates charged for partnership-track lawyers.<sup>114</sup> Some suggest that lawyers in the new positions will be happier than associates in traditional tenure-track positions.<sup>115</sup> Whatever the likelihood of that result, the central point is that a significant feature of the conventional law firm arrangement—the “up or out” expectations for young lawyers—may be abandoned due to the demands of technological change.

The operation of the law firm may be altered in other significant ways. In 2002, the San Francisco law firm Orrick shifted a great deal of its “back office” work from San Francisco to Wheeling, West Virginia.<sup>116</sup> It estimates that this move saved the firm \$26.5 million during the first five years of the West Virginia office’s operations.<sup>117</sup> Since then, “offshoring” of such work has grown. Howrey has opened an office in India,<sup>118</sup> as has Clifford Chance.<sup>119</sup> Baker & McKenzie has moved its back office work to the Philippines.<sup>120</sup> Moreover, Indian firms employing Indian lawyers are increasingly providing low-cost services for American law firms or clients, moving beyond providing purely back office services. One estimate is that the number of Indian lawyers engaged in this activity increased threefold between 2005 and 2006.<sup>121</sup> Another estimate is that the dollar value of this activity might rise approximately fiftyfold to four billion dollars by 2015.<sup>122</sup> Although some law firms resist such offshoring as undermining the professional atmosphere of American law firms,<sup>123</sup> client pressures may mean that the frequency of such arrangements rises. Thus, a recent article begins with the illustration of a corporate general

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114. See, e.g., Redhage, *supra* note 113 (reporting that salaries and billing rates for staff attorneys are lower than for partnership-track associates).

115. See *id.* (reporting that the director of the Bingham McCutchen staff attorney program says that “staff attorneys escape the stress of the partnership track and enjoy . . . a less competitive work environment with more camaraderie”).

116. Kellie Schmitt, *The View From Wheeling*, S.F. RECORDER, May 5, 2008, at 1.

117. *Id.*

118. Daphne Eviatar, *Howrey Opens India Office for Document Management*, S.F. RECORDER, Feb. 11, 2008, at 3.

119. Richard Lloyd, *Home Away From Home*, AM. LAW., Sept. 2007, at 75.

120. Zusha Elinson, *Orrick Spins the Globe*, S.F. RECORDER, May 23, 2007, at 1.

121. Aruna Viswanatha, *Inside Out*, AM. LAW., Mar. 2008, at 20 (reporting an estimate that from March 2005 to the end of 2006, the number of Indian lawyers so employed rose from 1800 to 6000); see also Niraj Sheth & Nathan Koppel, *With Times Tight, Even Lawyers Get Outsourced*, WALL ST. J., Nov. 26, 2008, at B1 (reporting rapid growth in outsourcing to India).

122. See Vesna Jaksic, *Guidelines for Outsourcing Grow*, NAT’L L.J., Apr. 30, 2007, at 5; Arin Greenwood, *Manhattan Work at Mumbai Prices*, A.B.A. J., Oct. 2007, at 36, 39.

123. See Elinson, *supra* note 120 (quoting the chair of a large American law firm, who stated that “[w]e depend very heavily on personal relationships between lawyers and staff and it would be a very substantial change and disruption if we told people you either don’t have a job or you can move to wherever”).



counsel asking himself, "Why pay big-firm associates \$200 an hour to do document review when you can ship it out to India for \$25 an hour?"<sup>124</sup> Answering that question will likely become a bigger concern of American law firms.

Closer to home, law firms are beginning to offer the kinds of electronically assisted access opportunities that Susskind predicted.<sup>125</sup> American firms have been using computers for multiple tasks for some time. More than twenty years ago, the *American Bar Association Journal* was already reporting that "legal computing is no longer just for cutting and pasting standard forms, but for building cases, administering estates, creating personal research libraries, and much more."<sup>126</sup> In 2007, some twenty-four percent of firms were giving in-house lawyers at corporate clients access to the law firm's knowledge management systems.<sup>127</sup> Corporate clients are now requesting specific technological arrangements from law firms, such as electronic billing and access to their case materials via the firm's extranet, and twenty percent of those potential clients said that access of this sort affected decisions whether to retain a specific law firm.<sup>128</sup> E-billing is a high priority; "[e]lectronic invoices are typically broken down into exquisite detail, so company lawyers and CFOs can see exactly how a case was staffed, what the firm charged for late-night takeout dinners for the paralegals, and whether the amount billed falls within the budgeted range."<sup>129</sup> This scrutiny can even be used to confirm that staffing complies with the client's diversity goals.<sup>130</sup> For example, we are told that in mid-2008 "Wal-Mart, a leading corporate advocate of diversity in the legal profession, is deploying new software to keep a watchful eye on its law firms and make sure the attorneys working on its matters are diverse."<sup>131</sup>

For the firm's attorneys themselves, offsite access is becoming total:

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124. Zusha Elinson, *GCs Embracing Outsourced Work*, S.F. RECORDER, Jan. 24, 2008, at 1.

125. See SUSSKIND, *supra* note 80; *supra* note 89 and accompanying text (listing potential services).

126. Robert L. Perry, *The Case for Computers in the Law Office*, A.B.A. J., June 1, 1987, at A9.

127. Anthony Paonita, *All Aboard*, AM. LAW., Mar. 2007, at 77.

128. *Id.*

129. *Id.* at 78.

130. *Id.* (quoting Pitney Bowes's manager of legal operations as explaining that E-billing data enables the corporation to confirm that law firms are actually using diverse teams on its legal matters).

131. Alana Roberts, *A Tug of War*, MIAMI DAILY BUS. REV., July 11, 2008, at A1. The article adds that "[t]he new software is an example of the evolving approach taken by general counsel to ensure more minorities and more women are staffing their outside legal assignments." *Id.*; see also Leigh Jones, *Microsoft to Offer Counsel Diversity Bonuses*, NAT'L L.J., July 21, 2008, at 4 (reporting on Microsoft "tracking plan" to achieve these diversity goals).

Firms are thinking not just about remote access, but also about universal access as well. It is not enough that attorneys are able to communicate around the clock; they now want complete and fully secure office capabilities. This way, they can respond to conflict checks, download client reports, and complete time reports anytime, anywhere.<sup>132</sup>

Together, these changes surely mean that the Electronic Lawyer operates in an environment significantly different from the one her predecessors experienced in earlier decades. One consequence has been noted already—the stress on the work-life balance.<sup>133</sup> When the cares and burdens of the office could largely be left behind at the office, these concerns were not so pressing. But now that being at the office is hardly integral to being “at work,” the potential exists for work to intrude into every waking moment, and perhaps some sleeping ones as well. As those who renamed BlackBerries “CrackBerries” recognize, technology can produce qualitative changes in life for professionals. The increased access afforded clients is likely to magnify this effect, enabling them to monitor lawyers’ activities minutely and continuously, and prompting them to demand responses on shorter turn-around times. *Michael Clayton* illustrates this effect vividly; the title character seems to be constantly on call, and required to head out at a moment’s notice no matter what the time of day or night. Many contemporary lawyers feel somewhat the same way.

Indeed, Professors Galanter and Henderson have recently emphasized the role of electronic media in the transformation of the big law firm:

[T]he advent of the computer and sophisticated software has profoundly influenced the behavior of the market participants. Increasingly, the financial performance of a firm is tracked internally on an office-by-office, practice-group-by-practice-group, lawyer-by-lawyer level. . . . With the interconnectivity of business over the Internet, a large proportion of clients are demanding that law firms submit their bills electronically using a standardized format that facilitates firm-to-firm comparisons on similar matters. Thus, from virtually every perspective, the economic contribution of specific lawyers or law firms has become more measurable and transparent.<sup>134</sup>

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132. See, e.g., Marcy Burstin, *Making It Better*, AM. LAW., Nov. 2006, at 55.

133. See *supra* note 25 and accompanying text.

134. Marc Galanter & William Henderson, *The Elastic Tournament: A Second Transformation of the Big Law Firm*, 60 STAN. L. REV. 1867, 1897–98 (2008). Galanter and Henderson note:

From the emergence of the promotion-to-partnership firm until about 1960, the office, research, and communication technology of law practice remained largely unchanged. Then, in rapid succession, the firm’s productivity, scope, and scale were enlarged by

As we shall see,<sup>135</sup> the electronic effect may not be causative, but it is nonetheless central.

Looking to the future, then, one would expect more of the same; for many attorneys, the stresses of practicing law are not likely to abate due to technology. Coping with these stresses will likely be a major concern for the bar over coming decades.

## V. A TWO-TIER PROFESSION?

Another possible feature of the future—potentially exacerbating other stresses on the profession—is that it may become a two-tier legal affair. Competitive forces, we are told, may increasingly limit top-dollar legal work to a small number of law firms, leaving the others to scrap for the less exalted work in a highly competitive environment leavened by the possibility of budget offshore placement of legal work formerly given to American lawyers.<sup>136</sup> It seems that the concentration of success at the very top, recognized more generally a decade ago,<sup>137</sup> may become the lot of the legal profession.

There is certainly some evidence that this phenomenon is taking hold in the legal profession. The distribution of starting salaries for recent law graduates, for example, does not form a Bell curve, but rather shows two distinct peaks, with the high-earning young lawyers making far more than the rest.<sup>138</sup> Fifteen years ago Galanter and Pa-

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photocopying, computers, jet air travel, faxing, the Internet, and the myriad innovations that accompanied them.

*Id.* at 1881.

135. See *infra* notes 239–270 and accompanying text.

136. See, e.g., Mehul Patel, *Ecosystem of Legal Services Is Evolving*, NAT'L L.J., Apr. 28, 2008, at S1. Patel, who is executive vice president of a “new model firm that changes the way attorneys and clients work together,” explains as follows:

For a handful of the most successful traditional law firms, this environment brings an opportunity to adapt, differentiate, and garner the premium price-insensitive bet-the-company work that will drive growth in profits per equity partner. For most others, it will mean a new era of competition, both with other traditional firms and with a new category of firms that will enter the market in response to the needs of corporate buyers.

*Id.*

137. See ROBERT H. FRANK & PHILIP J. COOK, *THE WINNER-TAKE-ALL SOCIETY: WHY THE FEW AT THE TOP GET SO MUCH MORE THAN THE REST OF US* (1995) (examining the tendency of concentration of economic activity to magnify the take of the “winners” but not of the rest).

138. For the law school class of 2006, the National Association of Law Placement (NALP) compiled data about the distribution of full-time salaries, which revealed a bimodal distribution, with one peak at about \$35,000 per year and another at about \$135,000 per year. See NALP, *A Picture Worth 1,000 Words* (Sept. 2007), <http://www.nalp.org/content/apictureworth1000words>. For graduates of the class of 2007, NALP compiled similar data, yielding a chart again with two high points, one at a salary of about \$40,000 and another at a salary of about \$160,000. See NALP, *Another Picture Worth 1,000 Words* (July 2008), <http://www.nalp.org/anotherpicture>. A

lay began their book on law practice with a similar orientation, seeking to examine “the two hemispheres of the profession.”<sup>139</sup> The 2005 study of the Chicago bar by Professor Heintz and his colleagues found such a divergence comparing a study of the Chicago bar in the mid-1970s. The American Bar Association, for example, included more graduates of elite law schools and attorneys from big firms than others.<sup>140</sup> This divergence has happened even though law firms have become more diverse in many ways.<sup>141</sup> A small number of elite law schools increasingly send their graduates to large law firms than do other law schools.<sup>142</sup> For 2008, however, the level of hiring reached such a point that some predicted that fully a quarter of all law school graduates would be hired by big firms, which would seem to spread the opportunities to graduates of a larger collection of law schools.<sup>143</sup> But the reportedly growing divergence in incomes between the largest law firms and moderate-sized firms may mean that for partners the difference becomes more and more pronounced.<sup>144</sup>

For those who favor a unified bar, these prospects are troubling. The advent of the Electronic Lawyer could exacerbate the divergence. A 2002 study in England found a divide between small and large firms in their use of information technology.<sup>145</sup> But generally the costs of technology are relatively low, and with the Electronic Lawyer, a small firm may be better able to compete with the big firm than without

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similar analysis of the salaries upon graduation of the members of the classes of 1991 and 1996 looked quite different, with only one high point at around \$28,000 (in 1991) and \$33,000 (in 1996). By the class of 2000, however, the trend observed in 2007 and 2008 had begun to emerge, with one high point at about \$35,000 and another at about \$125,000. See NALP, *Salaries for New Lawyers: How Did We Get Here?*, NALP BULLETIN, Jan. 2008, available at <http://www.nalp.org/content/index.php?pid=561>.

139. GALANTER & PALAY, *supra* note 7, at 1. Professor Galanter’s more recent study of big law firms suggests that stratification may emerge even among big firms. See Galanter & Henderson, *supra* note 134, at 1882–1906. In the 1920s, one study concluded that “there were two American bars which practiced two very different kinds of law, and the divisions ran along economic and class lines.” LAPIANA, *supra* note 71, at 163.

140. JOHN P. HEINZ ET AL., *URBAN LAWYERS: THE NEW SOCIAL STRUCTURE OF THE BAR* 55 (2005).

141. See *id.* at 69–71, 288–95 (noting that large law firms had become much more diverse in terms of ethnicity, race, and gender, but that the stratification among them had also become more pronounced).

142. See Leigh Jones, *Survey: More Top Grads at Nation’s Largest Firms*, S.F. RECORDER, Apr. 15, 2008, at 3 (reporting that a “bigger percentage of students graduating from top law schools in 2007 took jobs” at the 250 largest law firms in the nation than in 2006).

143. Aric Press, *The New Reality*, AM. LAW., Aug. 2007, at 91.

144. See HEINZ ET AL., *supra* note 140, at 291 (reporting that the incomes at the largest law firms grew during the period from the 1970s to 1990s, but that the incomes fell at small firms).

145. Gurmark Singh et al., *An Empirical Study of the Use of IT by Small and Large Legal Firms in the UK*, 2002(1) J. INFO. L. & TECH., [http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2002\\_1/singh](http://www2.warwick.ac.uk/fac/soc/law/elj/jilt/2002_1/singh).

high-tech assistance. That's the possibility foreseen by Bob Stein, former Executive Director of the ABA, who asked in 2006: "Will the new technologies level the playing field so that solo and small firm practitioners will have the same practice resources presently available primarily in large firm settings?"<sup>146</sup> Heinz and his colleagues found that technology held this promise: "Although access to electronic communication technology is now essential to an efficient and effective law practice, that technology is not so expensive that large numbers of lawyers must share it in order to make it a sensible investment."<sup>147</sup> Even if the continued stratification of the profession proves to be an ongoing reality, it does not seem that the technological aspects of practice contribute to it in this country.<sup>148</sup>

## VI. MOVING AWAY FROM BALKANIZED REGULATION?

There has been no shortage of complaints about lawyer regulation in recent decades. As Professor Hadfield put it in her recent study of the subject, "[f]ew commentators, outside of the practicing bar and the judiciary, find much to recommend the modern system of professional regulation of lawyers."<sup>149</sup> Whether or not reliance on professional self-regulation is overthrown, the advent of the Electronic Lawyer places heavy stress on the localized and balkanized nature of that regulation.

Since we began by comparing the impact of electronic devices on doctors,<sup>150</sup> it might be worthwhile to contrast the licensure practices for them. State-by-state standards for doctors would seem anomalous given that humans are essentially the same everywhere, although presumably there could be some differences in medical needs in different climates. For doctors, licensure results from a rigorous long-term se-

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146. Robert A. Stein, *The Future of the Legal Profession*, 91 MINN. L. REV. 1, 9 (2006).

147. HEINZ ET AL., *supra* note 140, at 285.

148. A number of studies support this conclusion. Thus, it is said that new technologies permit small firms and solo practitioners to better compete with large firms. See, e.g., Susanne Brent, *The New Technological Law Practice*, ARIZ. ATT'Y, June 2001, at 20, 25 (observing that technology may tip the balance in favor of a small firm); Ellen E. Deason, *Allerton House Conference '98: Confronting and Embracing Changes in the Practice of Law*, 86 ILL. B.J. 628, 633 (1998) (noting that small firms may be more nimble in adapting to rapid technological change); Neil Pederson, *Staying Competitive for the Solo and Small Firm: The Paperless Law Office*, ORANGE COUNTY LAW, July 2008, at 18, 18 (reporting on the equalizing effect of technology in overcoming the tendency of large firms to try to overwhelm small firms with paperwork); *Deliberations of the ABA Committee on Research About the Future of the Legal Profession: Part II: Access to Legal Services*, ME. B.J., Winter 2002, at 48, 54 (2002) (noting that technology permits solo practitioners to be admitted to and maintain virtual offices in multiple jurisdictions).

149. Hadfield, *supra* note 106, at 1690.

150. See *supra* notes 18–63 and accompanying text.

ries of examinations and, although it is offered by states, those who complete the examinations are eligible to practice in any state.<sup>151</sup> But even for doctors, complete portability is not assured; states may limit their movement.<sup>152</sup>

The United States certainly has a stronger tradition of localism than many countries, perhaps explaining this enduring localism in licensing doctors. That localism is surely reflected in the regulation of the legal profession, which remains a state-by-state affair. When that technique emerged, of course, it made perfect sense; a lawyer in one state would rarely engage in activities in another state that could be called legal representation there. Moreover, except for the distracting possibility under *Erie*<sup>153</sup> that a federal court in a state would apply “general” common law rather than the state’s law, lawyers rarely had to worry about the content of the laws of other states. And despite the brooding omniscience of the “general” common law, by the late nineteenth century, state laws differed on many things.

But that early nineteenth-century simplicity for legal practice must have slipped away by the end of that century, and at the beginning of the next century the introduction of the telephone further tied the nation together and meant that lawyers could not always comfortably limit their attention to the law of their own states.<sup>154</sup> Nonetheless, the state-centric mode of regulation has endured. Efforts to establish Federal Rules of Attorney Conduct for lawyers in the federal courts

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151. See, e.g., Jayne W. Barnard & Mark Greenspan, *Incremental Bar Admissions: Lessons From the Medical Profession*, 53 J. LEGAL EDUC. 340, 342–48 (2003) (describing the process of licensure for American doctors).

152. Barnard and Greenspan explain:

Portability becomes more difficult as the doctor progresses through her career. For example, some states limit a candidate’s right to licensure by endorsement (the term used to describe a transfer of license from state to state) to a defined number of years after initial licensure. After that period, an additional written qualifying exam, known as the Special Purpose Examination or SPEX, may be required.

See *id.* at 348.

153. *Erie R.R. v. Tompkins*, 304 U.S. 64 (1938).

154. See, e.g., SEAN WILLIAMS & DAVID NERSESSIAN, OVERVIEW OF PROFESSIONAL SERVICES INDUSTRY AND THE LEGAL PROFESSION 11, available at [http://www.law.harvard.edu/programs/plp/pdf/Industry\\_Report\\_2007.pdf](http://www.law.harvard.edu/programs/plp/pdf/Industry_Report_2007.pdf) (last visited Feb. 16, 2009). According to Williams and Nersessian:

This state-by-state licensing scheme was adequate at one time because most legal work was local. Today, however, it is common for lawyers to represent individuals and corporations with business dealings in multiple states. Unfortunately, the regulation of legal practice at the state level has failed to develop in tandem with business realities. This often creates impediments to the efficient delivery of legal services.

*Id.*

bore little fruit.<sup>155</sup> The question whether lawyers admitted in one state can provide legal services in another is slightly different. Many states will grant admission to attorneys admitted in other states on a reciprocity basis, but some—notably California and Florida—will not. There is surely a temptation to regard the requirement of local admission to practice as protection for local lawyers.<sup>156</sup>

That localism became harder and harder to justify through the twentieth century.<sup>157</sup> Particularly in the last third of that century, it saw the emergence of firms with multiple offices, often in many states, and the growth of international practices. To illustrate, the head of the real estate practice in the Los Angeles firm Paul Hastings recently moved to London after practicing for more than twenty years in Los

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155. For general discussion of the experience in adopting uniform rules of attorney conduct for federal courts, see ADMINISTRATIVE OFFICE OF THE UNITED STATES COURTS, WORKING PAPERS OF THE COMMITTEE ON RULES OF PRACTICE AND PROCEDURE: SPECIAL STUDIES OF FEDERAL RULES GOVERNING ATTORNEY CONDUCT (Sept. 1997), available at <http://www.uscourts.gov/rules/WorkingPapers-AttorneyConduct.pdf>. Some commentators strongly urged adoption of such rules. See, e.g., Linda S. Mullenix, *Multiforum Federal Practice: Ethics and Erie*, 9 GEO. J. LEGAL ETHICS 89, 126–27 (1995) (discussing the difficulty that attorneys confront in ascertaining the appropriate standards of professional conduct); Fred C. Zacharias, *Federalizing Legal Ethics*, 73 TEX. L. REV. 335, 379–80 (1994) (discussing the growing need for federal codification of professional standards due to the increasing nationalization of legal practice). But see Note, *Uniform Federal Rules of Attorney Conduct: A Flawed Proposal*, 111 HARV. L. REV. 2063 (1998) (arguing against adoption of proposed uniform rules). Professor Kaufman has concluded that localism should triumph over national rules, so that federal courts should adhere to the professional responsibility rules of the states in which they sit (“vertical” uniformity) rather than ensuring that all lawyers in federal court nationwide operate under the same set of rules (“horizontal” uniformity). Andrew L. Kaufman, *Who Should Make the Rules Governing Conduct of Lawyers in Federal Matters*, 75 TUL. L. REV. 149, 160 (2000). Kaufman explains:

For me, the long-term solution begins with my instinct, which has no empirically proven basis, that there are many more private lawyers who practice in both the federal and state systems in their states than who practice in the federal system in many different states. If that is the case, then it seems that the better solution to the local federal rule problem begins with vertical uniformity between the federal and state courts in a given jurisdiction . . . .

*Id.*

156. One explanation for the refusal of California and Florida to afford reciprocity to experienced lawyers from other jurisdictions is that they are popular destinations, particularly for retirement. See, e.g., Robert M. Jarvis, *An Anecdotal History of the Bar Exam*, 9 GEO. J. LEGAL ETHICS 359, 397 (1996); Daniel R. Hansen, Note, *Do We Need the Bar Examination? A Critical Evaluation of the Justifications for the Bar Examination and Proposed Alternatives*, 45 CASE W. RES. L. REV. 1191, 1219 (1995). But it is worth noting that less “popular” states deny reciprocity. See NATIONAL CONFERENCE OF BAR EXAMINERS, COMPREHENSIVE GUIDE TO BAR ADMISSION REQUIREMENTS 2008, at 28, available at [http://www.ncbex.org/fileadmin/mediafiles/downloads/Comp\\_Guide/CompGuide.pdf](http://www.ncbex.org/fileadmin/mediafiles/downloads/Comp_Guide/CompGuide.pdf) (last visited Feb. 16, 2009).

157. At least sometimes lawyers take up arms against it. For example, Steve Levine “promised to do all [he] could to support the interstate practice of law” when he ran for president of the Wisconsin State Bar. See Steve Levine, *One Nation, Indivisible*, WIS. LAW., Mar. 2007, at 2, 2 (explaining opposition to pending proposals because they would “place an outmoded 20th century regulatory framework on interstate practice for decades to come”).

Angeles, where he grew up, to join the Paul Hastings office in London.<sup>158</sup> The reason? “There’s the weakness of the dollar” and clients want to diversify outside this country.<sup>159</sup> London may be a rather pedestrian destination. A recent article in the *ABA Journal* described the considerable rise in the number of U.S. firms opening offices in Dubai.<sup>160</sup>

These developments hardly fit the old-style model of lawyer regulation. Individual lawyers *need* to operate in more than one state, and perhaps more than one country. Thus, in *Michael Clayton*, the George Clooney figure must travel from New York to Wisconsin to deal with the behavior of the firm’s lead litigator during a deposition there. Law firms increasingly provide services across multiple venues using lawyers from multiple places to provide those services. Although the ABA in 2002 revised its Model Rules of Attorney Conduct to expand opportunities for “temporarily” practicing law in other jurisdictions,<sup>161</sup> the actual regimes of even the states that follow those Model Rules diverge from one another.

In 2006, Bob Stein, Executive Director of the ABA, predicted that “there will be extraordinary change in the relatively near future in the way our profession is regulated.”<sup>162</sup> As he noted, lawyers engage in representational activities in multiple jurisdictions with sufficient frequency that an ABA Commission in 2002 recommended a more liberal policy.<sup>163</sup> Meanwhile, the World Trade Organization was investigating the extent to which the current American methods of licensing lawyers interfere with fair trade.<sup>164</sup>

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158. See Niraj Chokshi, *Paul, Hastings Lawyer Moves to London*, S.F. RECORDER, Mar. 27, 2008, at 8.

159. *Id.*

160. See Jill Schachner Chanen, *Going for Gold in the Gulf*, A.B.A. J., Feb. 2008, at 18 (reporting that at least eleven U.S. firms have recently opened offices in Dubai).

161. See MODEL RULES OF PROF’L CONDUCT R. 5.5(c)(3) (2008) (allowing an attorney to provide legal services out-of-state so long as the services are “reasonably related to the lawyer’s practice in a jurisdiction in which the lawyer is admitted to practice”).

162. Stein, *supra* note 146, at 6.

163. See *id.* (citing COMM’N ON MULTIJURISDICTIONAL PRACTICE, AM. BAR ASS’N, REPORT 201B: ABA COMMISSION ON MULTIJURISDICTIONAL PRACTICE REPORT TO THE HOUSE OF DELEGATES 2–4 (Aug. 2002), available at <http://www.abanet.org/cpr/mjp/201b.doc>).

164. See *id.* & n.27. It appears that the collapse of the Doha Round has blunted formal action in regard to American restrictions on providing legal services. See generally Laurel S. Terry, *Current Developments Regarding the GATS and Legal Services: The Suspension of the Doha Round, “Disciplines” Developments, and Other Issues*, B. EXAMINER, Feb. 2007, at 27. The ABA has adopted a resolution supporting the development of practice admission rules that “do not unreasonably impinge on the regulatory authority of the states’ highest courts of appellate jurisdiction over the legal profession in the United States.” *Id.* at 28. See also ABA STANDING COMMITTEE ON PROFESSIONAL DISCIPLINE, RECOMMENDATION 105, at 6 (Aug. 7–8, 2006), available at <http://www.abanet.org/cpr/regulation/home.html>.



Surely the emergence of the Electronic Lawyer is not the sole cause of the current stresses on the traditional state-by-state regulatory apparatus. But equally surely electronic communications make that apparatus obviously inadequate for the demands of the twenty-first century, for it is now possible for a lawyer to engage in active practice in a distant state without leaving her home state. A recent personal jurisdiction ruling by the New York Court of Appeals is illustrative.<sup>165</sup> Plaintiff, a New York lawyer, was contacted by mail, email, and telephone by defendants, who operated a business in California and wanted to sue an Oregon company on a business-related claim.<sup>166</sup> He filed suit for them in federal court in Oregon, and later had a falling-out with his clients that led to his resignation from the case.<sup>167</sup> The Oregon court ruled that it did not have jurisdiction to award him a fee, although it did hold that the emails between the attorney and the clients established the attorney's right to a fair legal fee for his work.<sup>168</sup> He then sued the California clients for payment in New York.<sup>169</sup> The New York court upheld personal jurisdiction.<sup>170</sup>

The relevance of this case is that the New York lawyer did all his work on the case from New York.<sup>171</sup> His only contact with his clients was by telephone, email, and fax.<sup>172</sup> By telephone, he defended depositions, appeared at court conferences, and argued a motion for summary judgment.<sup>173</sup> True (and necessarily under our current system), he was admitted *pro hac vice* for the case by the Oregon court.<sup>174</sup> But the reality of this Electronic Lawyer's activities from New York underscores the difficulty of justifying the current regime in a day of instantaneous electronic communications.<sup>175</sup>

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165. *Fischbarg v. Doucet*, 880 N.E.2d 22 (N.Y. 2007).

166. *Id.* at 24–25.

167. *Id.* at 25.

168. *Id.*

169. *Id.* at 24.

170. *Id.*

171. *Fischbarg*, 880 N.E.2d at 24.

172. *Id.* at 24–25.

173. *Id.* at 24.

174. *Id.*

175. For other illustrations of this phenomenon, see *Medical Assurance Co. of Miss. v. Jackson*, 864 F. Supp. 576, 579 (S.D. Miss. 1994) (involving a suit alleging breach of settlement agreement against attorney who negotiated and concluded the settlement from another state); *Bond v. Messerman*, 895 A.2d 990, 993 (Md. 2006) (involving a malpractice suit against attorney who provided legal advice from another state regarding expungement of a criminal record); *Summit Lodging, LLC v. Jones, Spitz, Moorhead, Baird & Albergotti, P.A.*, 627 S.E.2d 259, 261–62 (N.C. Ct. App. 2006) (involving a malpractice suit against lawyers who drafted operating agreement, filed articles of organization, and conducted negotiations for purchase of property from another state).

## VII. ADDITIONAL ISSUES

The foregoing attempts to identify some issues that the emergence of the Electronic Lawyer has raised and will likely continue to raise. This Part identifies some additional issues that seem worthy of mention.

A. *The Attorney-Client Privilege*

There has never been a certain empirical basis for the attorney-client privilege,<sup>176</sup> but it is a hallmark of Anglo-American jurisprudence. Because it curtails access to what might well be highly important evidence, the privilege has also come under pressure. Wigmore, for instance, urged that it be restricted to its narrowest confines.<sup>177</sup> And doctrines of waiver have long been employed as one way to get around privilege.<sup>178</sup>

As the twenty-first century began, new pressures came to bear on the protection of the privilege. Most prominently, the U.S. Department of Justice (DOJ) policy known as the “Thompson Memo,” issued in 2003, has assertedly placed huge pressure on corporations to waive their privileges when under investigation in order to qualify as cooperating with the investigation.<sup>179</sup> The DOJ position assertedly led to a “culture of waiver” that excited strong opposition<sup>180</sup> and

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176. See David W. Louisell, *Confidentiality, Conformity and Confusion: Privileges in Federal Court Today*, 31 TUL. L. REV. 101, 112 (1956) (noting that there is no empirical evidence that the existence of the privilege actually promotes disclosure by clients).

177. According to Wigmore, “the privilege remains an exception to the general duty to disclose. . . . It ought to be strictly confined within the narrowest possible limits consistent with the logic of its principle.” 8 JOHN HENRY WIGMORE, *EVIDENCE IN TRIALS AT COMMON LAW* §2291, at 554 (McNaughton ed. 1961).

178. See Richard L. Marcus, *The Perils of Privilege: Waiver and the Litigator*, 84 MICH. L. REV. 1605, 1605–06 (1986) (discussing grounds for finding that privilege has been waived).

179. See Lawrence Hurley, *DOJ Considers Changes to Waiver Policy*, S.F. DAILY J., July 2, 2008, at 1.

180. See Liesa L. Richter, *Corporate Salvation or Damnation? Proposed New Federal Legislation on Selective Waiver*, 76 FORDHAM L. REV. 129, 133, 136–48 (2007). For an argument that increased activism by the DOJ is desirable, see Frank O. Bowman III, *Filling the Vacuum*, AM. LAW., Aug. 2008, at 138. Bowman explains:

Business is right in thinking that the Justice Department now has a greater presence in the corporate arena than ever before. Federal white-collar prosecutions increased throughout the 1990s, and despite some recent relaxation of effort, the quantity and significance of federal business crime cases remains historically high. But businesses should recognize this swarm of prosecutors as a pestilence it brought upon itself. In a period of chronic underregulation of business behavior, federal prosecutors stand as perhaps the only remaining authority able to hold corporate outlaws accountable for the misconduct that inevitably follows concentrations of wealth.

prompted proposed legislation.<sup>181</sup> At least one California court has labelled the DOJ program “coercive” and refused to find that submission of privileged materials to the DOJ waived the privilege in other litigation.<sup>182</sup> Eventually, the DOJ announced plans to change the waiver policy that might forestall a final vote on the legislation.<sup>183</sup> Nonetheless, other similar pressures exist, such as new proposed standards from the Financial Accounting Standards Board, which arguably might require revelation of otherwise privileged information.<sup>184</sup>

Given these manifold contemporary pressures on the privilege, it is hardly surprising to find that the advent of the Electronic Lawyer also puts potential pressure on the privilege. To start with an unnerving issue, it would surely be a challenge to adapt the privilege to an era in which the computer itself became the lawyer.<sup>185</sup> To the extent the privilege is necessary to encourage the client to make frank disclosures to the lawyer, it might be argued that similar insulation is necessary to encourage customers to be candid in making entries on TurboTax type programs designed to provide legal advice. But there could even be questions about whether those are “disclosures” within the meaning of the attorney-client privilege; perhaps they should be likened to diary entries or other such communications people have with themselves. On the other hand, so long as there is a possibility that provision of such programs for computerized self-help could constitute unauthorized practice of law,<sup>186</sup> it would seem consistent somehow to say that the privilege could apply.

Fortunately, we have not yet encountered these issues. But the era of the Electronic Lawyer has already generated new issues, or new versions of old issues. One area that has been significantly affected

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181. See Zach Lowe, *Attorney-Client Privilege Legislation Expected to Pass*, S.F. RECORDER, June 25, 2008, at 3 (reporting that proposed legislation passed the House of Representatives on a voice vote and was expected to pass the Senate).

182. See *Regents of the Univ. of Cal. v. Superior Court*, 81 Cal. Rptr. 3d 186, 194 (Cal. Ct. App. 2008).

183. See Lawrence Hurley, *DOJ Announces Changes to Privilege Waiver Policy*, S.F. DAILY J., July 10, 2008, at 1 (describing a letter from Deputy Attorney General Mark Filip to key lawmakers outlining plans for a change in DOJ policy).

184. See Sheri Qualters, *Litigation Disclosure Rule Faulted*, NAT'L L.J., June 30, 2008, at 8. As described in the article, the proposed new standards would require that public companies disclose their “best estimate” of their exposure in pending litigation and disclose information about their reserves for such litigation. *Id.* “The qualitative disclosures would most likely be based on confidential communication between companies and their counsel, said Clorox Co. Senior Vice President and Corporate Counsel Laura Stein . . .” *Id.*

185. See *supra* notes 64–107 (discussing the possibility of direct client service by computer program).

186. See *supra* notes 103–107 and accompanying text (discussing possible unauthorized practice of law issues relating to computerized self-help programs).

has been initial contacts with clients. Until recently, lawyers made contact with clients either over the telephone or by office visits, events that the lawyer could arrange in a way that both ensured an appropriate understanding of whether an attorney-client relationship had been established and provided suitable protections for client (and prospective client) confidences. But as a 2005 Ninth Circuit decision recognized, things have changed:

What is “new” about the case is attorneys trolling for clients on the internet and obtaining there the kind of detailed information from large numbers of people that used to be provided only when a potential client physically came into the lawyer’s office. Two things had to happen to bring this about: the change in law in the 1970s that permitted attorney advertising, and the sufficiently widespread use of the internet, within the past five or ten years, that makes internet advertising worthwhile.<sup>187</sup>

The magnitude of these changes will almost certainly increase, and new privilege issues will arise. To get a feel for the potential, consider that one study reported that some four million people a month used the Internet to search for legal services in 2006 and forecast that the number would reach seven million per month in 2007.<sup>188</sup> The *ABA Journal* reports that “[f]or lawyers, one byproduct of the explosion in electronic communications has been an increase in unsolicited e-mails from people seeking legal services.”<sup>189</sup> The article details examples of lawyers who had been retained by one party to a dispute receiving electronic communications from the adverse party providing incriminating information. Should this information be covered by the privilege? Could the adverse party claim to be a “client” when the lawyer already had a client involved in the dispute? The resolution of these issues may depend on the exact content of the lawyers’ web pages in making clear that no lawyer-client relationship exists unless some further event occurs, such as formal retention.<sup>190</sup>

Working out that question can prove difficult. In the Ninth Circuit case quoted above, a law firm interested in representing users of the pharmaceutical Paxil posted a questionnaire on the Internet seeking information from “potential class members.”<sup>191</sup> Those interested in legal services were to fill out a form, but to do so they had to click a

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187. *Barton v. U.S. Dist. Court*, 410 F.3d 1104, 1109 (9th Cir. 2005).

188. Geri L. Dreiling, *Choosing Up Sides*, A.B.A. J., May 2007, at 28 (reporting results of study by the Pew Internet & American Life Project). The article reports on the issues raised by online “legal match” services that put potential clients in contact with potential attorneys, and particularly the question of referral fees. *Id.*

189. Kathryn A. Thompson, *The Too Much Information Age*, A.B.A. J., July 2007, at 28.

190. *See id.* at 29.

191. *Barton*, 410 F.3d at 1107.

“yes” box acknowledging that the questionnaire “does not constitute a request for legal advice and that I am not forming an attorney-client relationship by submitting this information.”<sup>192</sup> Eventually, the district court did not certify a class, but four who filled out the forms (as thousands of other people also had) retained the firm to file suit on their behalf.<sup>193</sup> Defendant demanded production of the four clients’ answers to the questionnaire as the trial approached, and the district court ordered production, stressing that the form itself said there was no attorney-client relationship.<sup>194</sup>

The court of appeals reversed, finding under California law that this disclaimer did not prevent a prospective client from relying on confidentiality even when there was no existing attorney-client relationship.<sup>195</sup> It recognized that the law firm had to have such a provision to protect itself against possible malpractice liability to all who submitted forms, and emphasized that, although the form said there was no attorney-client relationship, it was consistent with the firm maintaining confidentiality of the answers (although saying explicitly that the answers would be held in confidence would probably be a good idea).<sup>196</sup>

Contrast a district court decision in a suit brought by the ACLU regarding police activities during the 2004 Republican National Convention.<sup>197</sup> The ACLU had an online “intake form” that invited anyone to submit information on his or her interaction with the police, the use of force by the police, and similar matters.<sup>198</sup> In the ACLU’s suit, the city demanded production of the online reports.<sup>199</sup> The court ruled that they were not protected by the attorney-client privilege, distinguishing the Ninth Circuit decision on the ground that the form in

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192. *Id.* at 1107 n.5. Formal Opinion 07-445 by the ABA explains as follows:

Before the class has been certified by a court, the lawyer for plaintiff will represent one or more persons with whom a client-lawyer relationship clearly has been established. As to persons who are potential members of a class if it is certified, however, no client-lawyer relationship has been established. A client-lawyer relationship with a potential member of the class does not begin until the class has been certified and the time for opting out by a potential member of the class has expired. If the client has neither a consensual relationship with the lawyer nor a legal substitute for consent, there is no representation. Therefore, putative class members are not represented parties for purpose of the Model Rules prior to certification of the class and the expiration of the opt-out period.

ABA Comm. on Ethics and Prof’l Responsibility, Formal Op. 07-445 (2007), *reprinted in* ABA, *LAWYER’S MANUAL ON PROFESSIONAL CONDUCT* 109, 111 (2007).

193. *Barton*, 410 F.3d at 1106 n.1.

194. *Id.* at 1108.

195. *Id.* at 1111.

196. *Id.* at 1111–12.

197. *Schiller v. City of New York*, 245 F.R.D. 112 (S.D.N.Y. 2007).

198. *Id.* at 113–14.

199. *Id.* at 115.

this case says nothing about providing legal services, and that there was no showing that those who filled out the forms were seeking legal representation.<sup>200</sup>

Once the attorney-client relationship has been formally established, additional issues confront the Electronic Lawyer. Until recently, it was fairly clear how to communicate with the client—in person, by letter, or by telephone. True, cellphones may increase the risk of interception (as Newt Gingrich discovered when his cellphone activities were tape recorded),<sup>201</sup> but so long as one was prudent about such communications one could be relatively confident that the privilege would apply.

Nowadays, a large proportion of the U.S. population relies on email or instant messaging and texting to communicate. The security of these new media is at least uncertain. Attorneys' initial unease about email may have been overstated,<sup>202</sup> but the ease of forwarding and the tendency to send copies to multiple recipients both place pressure on the privilege under the Wigmorean attitude that any disclosure outside the charmed circle destroys the privilege for all and for all time. The advent of E-Discovery poses new challenges to preserving the privilege.

These complications may proliferate because people often use their computers at work for multiple purposes, including communicating with their lawyers. Employers generally have a right to inspect what their employees do using the employer's computer,<sup>203</sup> and they are increasingly prone to do so. Indeed, they may have a duty to engage in such surveillance of employee computer use to guard against workplace harassment and the like. Beyond that, increasingly refined programs exist to enable them to achieve marketing and other goals.<sup>204</sup> What if the employee uses the employer's system (including handheld devices like a BlackBerry) to communicate with her lawyer? In a New York case in which a doctor filed a breach of contract action

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200. See *id.* at 116–18.

201. In 1996, while Gingrich was Speaker of the House, two citizens used a police scanner to record a telephone conference call in which Gingrich discussed imminent ethics charges. See Adam Clymer, *Gingrich Is Heard Urging Tactics in Ethics Case*, N.Y. TIMES, Jan. 10, 1997, at A1 (describing taped conversation). Two days later the contents of the tape were on the front page of the *New York Times*. *Id.*

202. See, e.g., David Hricik & Amy Falkingham, *Lawyers Still Worry Too Much About Transmitting E-Mail over the Internet*, 10 J. TECH. L. & POL'Y 265 (2005).

203. See *Fraser v. Nationwide Mut. Ins. Co.*, 352 F.3d 107 (3d Cir. 2003) (holding that an employer's sifting through an employee's email did not violate federal privacy protections).

204. See, e.g., William M. Bulkeley, *Email Software Delves Into Employees' Contacts*, WALL ST. J., Apr. 21, 2008, at B9 (describing programs that enable companies "to mine their employees' emails and electronic address books for contact information").

against the hospital at which he worked, the court ruled that the doctor's email communications with his lawyer using the hospital computer system were not covered by the privilege.<sup>205</sup>

The foregoing privilege issues are not qualitatively different from similar issues that have existed before, but their importance is likely to increase in the future as the Electronic Lawyer tries to obtain the same protections that the privilege provided in the past.

### B. *Coping with the Surveillance Society*

A second emerging concern is not so much about the activities of the Electronic Lawyer as it is about the consequences of high-tech information-gathering and the resulting potential for governmental surveillance.<sup>206</sup>

For lawyers, the development of the laptop and other handheld computer devices has opened a world of communication formerly unimaginable. A laptop can store and make available at any location much of what a law office contains, including a variety of extremely sensitive materials. That's why the electronic law office is quite different from earlier operations.<sup>207</sup> But as unfortunate experiences with laptops containing other types of sensitive data have shown,<sup>208</sup> some significant risks accompany these benefits. Given the growing globalization of law practice, lawyers crossing borders face the additional risk that government agents will insist on access to all files on their computers. In the view of two criminal defense lawyers, "attorneys traveling with computers containing legal files are faced with a Hobson's choice. Customs officials and other federal agents may now

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205. *Scott v. Beth Israel Med. Ctr., Inc.*, 847 N.Y.S.2d 436, 443 (N.Y. Sup. Ct. 2007). For a similar example, although perhaps with an important difference, see Jonathan D. Glater, *Open Secrets*, N.Y. TIMES, June 27, 2008, at C1. The article describes a suit brought by the former president of a company against the company, claiming that it improperly accessed his Yahoo email account and read attorney-client communications on that account. *Id.* In the words of plaintiff's attorney, "It's kind of like the other side gets your playbook or they're spying on your locker room." *Id.* The company said that it was able to access the Yahoo account because plaintiff had used one of its computers to access the account and improperly send confidential company information to the account. *Id.*

206. See generally Jack M. Balkin, *The Constitution and the National Surveillance State*, 93 MINN. L. REV. 1, 19–21 (2008) (discussing "National Surveillance State" of governmental use of data collection, and the limited effect of Fourth Amendment protections against such activity).

207. See *supra* notes 108–135 and accompanying text.

208. See, e.g., Rick Weiss & Ellen Nakashima, *Stolen NIH Laptop Held Social Security Numbers*, WASH. POST, Apr. 10, 2008, at A5 (reporting on loss of information of about 1200 participants in a National Institutes of Health study); Eric Dash, *Ameriprise Says Stolen Laptop Had Data on 230,000 People*, N.Y. TIMES, Jan. 26, 2006, at C5 (reporting that company laptop with information including social security numbers and internal account numbers had been stolen).

search any computer at the border for any reason, or no reason at all.”<sup>209</sup>

But most travel and activity by American lawyers does not presently involve crossing borders, and lawyers are rarely the objects of governmental scrutiny. Their clients may be, however, and they are subject to a growing array of search techniques, including regular seizure and search of suspects’ computers. Beyond that, increasingly large sectors of domestic public space are subject to twenty-four-hour surveillance by increasingly sophisticated video devices. As a former Director of the Federal Bureau of Investigation reports, efforts to defeat terrorists have amplified these activities: “The British agency responsible for internal affairs spends nearly three-quarters of its crime prevention budget on the administration, operation, and maintenance of [video] cameras—one for every 14 inhabitants of the United Kingdom . . . .”<sup>210</sup> Global positioning systems, meanwhile, enable law enforcement to monitor the precise movements of a vehicle or other physical item for weeks or months at a time.<sup>211</sup>

Anyone who watches television crime shows will appreciate the impact these technologies have had on twenty-first-century law enforcement activities; it seems from *CSI* and similar shows that crime detection would be impossible without them. But what of the privacy of all the rest of us? The former FBI Director’s conclusion was that “pervasive video surveillance threatens fundamental tenets of our democratic society.”<sup>212</sup> For lawyers, the question is whether current legal protections are sufficient. Professor Kerr, for example, believes that major changes in Fourth Amendment analysis are necessary to deal properly with the search of computers.<sup>213</sup> Professor Hutchins

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209. Nanci Clarence & Craig Bessener, *They Have Ways of Making Your Laptop Talk*, S.F. RECORDER, June 27, 2008, at 5. This article was prompted by *United States v. Arnold*, 533 F.3d 1003 (9th Cir. 2008), which rejected Fourth Amendment objections to the search at the Los Angeles airport of the laptop of a passenger from the Philippines that revealed child pornography, leading to a prosecution for possession of child pornography. In that case, the Ninth Circuit held that, because this was a border search there was no need for probable cause to justify it. *Id.* at 1010; see also David E. Brodsky et al., *At Border, Laptops Are Open Books*, NAT’L L.J., July 21, 2008, at S1 (reporting that some foreign companies “have instructed executives to keep confidential business information off their traveling laptops” in reaction to the possibility of search at U.S. borders).

210. William S. Sessions, *Evil Eye*, AM. LAW., Nov. 2007, at 75. Recently, one MP resigned from the Tory Party in part in protest against the development of what he called “a database society” in England. See *Davis Blows His Top*, ECONOMIST, June 14, 2008, at 71.

211. See Renée McDonald Hutchins, *Tied Up in Knotts? GPS Technology and the Fourth Amendment*, 55 UCLA L. REV. 409, 414–21 (2007).

212. See Sessions, *supra* note 210, at 75.

213. See Orin S. Kerr, *Searches and Seizures in a Digital World*, 119 HARV. L. REV. 531, 537 (2005) (asserting that “[t]he widespread use of computers in recent years has led to a new type of



similarly thinks that proper Fourth Amendment treatment of the use of GPS technology will require that use of this technology only be permitted after issuance of a warrant.<sup>214</sup>

In regard to all these technologies, lawyers will have to litigate the protections in court. In criminal cases, the issues may come up on motions to suppress evidence obtained by such technological means. In criminal and civil cases, lawyers will be called upon to litigate the additional protections provided by statutes for the privacy of users of various sorts of electronic communication devices. As a panel of the Ninth Circuit recently put it in holding in a civil case that a city violated the Fourth Amendment by reading the erotic text messages one of its policemen sent his wife on his city-provided pager:

The extent to which the Fourth Amendment provides protection for the contents of electronic communications in the Internet age is an open question. The recently minted standard of electronic communication via e-mails, text messages, and other means opens a new frontier in Fourth Amendment jurisprudence that has been little explored.<sup>215</sup>

Somewhat similar issues may increasingly be involved in a whole range of civil cases when parties seek E-Discovery, “the hottest issue by far” in legal tech circles.<sup>216</sup> Initially, the heat generated by E-discovery was from corporations and other large organizations concerned about the burdens of producing huge amounts of electronically stored information.<sup>217</sup> That is why the pressures of E-Discovery are contributing to the creation of a new niche of lawyers in some law firms.<sup>218</sup> For some time, many seemed to have thought that E-Discovery was a problem only for such large organizations. But the perva-

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search”); Orin Kerr, *Digital Evidence and the New Criminal Procedure*, 105 COLUM. L. REV. 279, 293 (2005) (asserting that administrators of ISPs can access “a user’s entire online world”). For further discussion of whether there has been a revolution in criminal procedure as a result, see generally Marcus, *supra* note 10. See also Adam M. Gershowitz, *The iPhone Meets the Fourth Amendment*, 56 UCLA L. REV. 27 (2008) (discussing the Fourth Amendment ramifications of the multiple applications of iPhones if they can be searched incident to a search).

214. See Hutchins, *supra* note 211, at 464–65.

215. *Quon v. Arch Wireless Operating Co.*, 529 F.3d 892, 904 (9th Cir. 2008). The city did not possess the contents of the messages and had to get them from a company that provided the messaging service. *Id.* at 898. The court also held that the company had violated the Stored Communications Act in turning the messages over to the city. *Id.* at 903.

216. Jake Widman, *Discovering a New Practice*, CAL. LAW., July 2008, at 26.

217. This was the pervasive thrust of the hearings and consultations that led to amendments to the Federal Rules of Civil Procedure to adapt them to E-Discovery that went into effect on December 1, 2006. I served as Special Reporter to the Advisory Committee on Civil Rules in connection with the drafting of those rule amendments. The sentence in text summarizes that experience, including the public commentary and hearings phase of the amendment activity. In this piece, I am speaking only for myself and not for the Advisory Committee or anyone else.

218. See *supra* notes 113–118 and accompanying text.

siveness of electronic communications has led to similar concerns on both sides of the aisle, underscoring the consequences for lawyers of the surveillance society. For example, a recent article in *Trial* magazine counsels plaintiffs' lawyers as follows:

To effectively represent a client now, you need to be well aware of the types of evidence that he or she—or family members, friends, and so on—has posted on the Internet. More and more, defendants request production of the client's personal computer, giving rise to legal issues such as relevance, the client's privacy, and third-party privacy.<sup>219</sup>

The sorts of concerns lawyers must have about their own computers when crossing borders<sup>220</sup> will increasingly apply to discovery in much civil litigation; like the police, civil litigants may obtain access to much previously confidential information.

### C. The Electronic Law School

What of the electronic law school? Law schools might change a great deal due to the advent of universal electronic communications. "Distance learning" is now possible in ways not formerly true. Should it be tried for legal education? Law schools could embrace this trend and substitute online instruction for the traditional in-class variety. There is at least one law school—the Concord Law School—that provides an entirely online experience.<sup>221</sup> To date, the ABA has stood firm against this sort of innovation.<sup>222</sup> Concord Law School is therefore not ABA-accredited, and the only state in which its graduates can take the bar examination is California, which does not require attendance at an ABA-accredited law school.<sup>223</sup> Although the days of

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219. Karen Barth Menzies, *Perils and Possibilities of Online Social Networks*, TRIAL, July 2008, at 58, 60.

220. See *supra* note 209 and accompanying text.

221. For Concord Law School's online self-description, see <http://www.concordlawschool.edu> (last visited Feb. 16, 2009). See generally DAVID I.C. THOMSON, LAW SCHOOL 2.0 (2009) (describing ways in which law school could be revised to exploit the capabilities of computers and the Internet).

222. See, e.g., ABA SECTION OF LEGAL EDUCATION AND ADMISSIONS TO THE BAR, STANDARDS AND RULES OF PROCEDURE FOR APPROVAL OF LAW SCHOOLS, Standard 306(d) (providing that, although a law school may grant credit toward a J.D. degree for study offered through distance learning, it may not do so for more than a total of twelve credit hours). For an argument that law schools will need to add distance education, see Diana L. Gleason, *Distance Education in Law School: The Train Has Left the Station*, 2006 BERKELEY ELECTRONIC PRESS LEGAL SERIES No. 1762, available at <http://law.bepress.com/expresso/eps/1762>.

223. On occasion, Concord Law School graduates have received waivers that permitted them to take bar examinations alongside graduates of traditional law schools. See Kristina Horton Flaherty, *Court Win for Online Law School Grad*, CAL. ST. B.J., Jan. 2009, at 6 (reporting ruling permitting Concord Law School graduate to take Massachusetts bar exam).

Kingsfield are gone (if ever they existed),<sup>224</sup> law schools continue to adhere to in-class instruction, sometimes “socratic.”

The electronic law student therefore attends a class in much the same way as her predecessors, but her experience has been altered by the advent of electronic communications. Almost all law students use laptop computers, in class and out. All or almost all faculty applaud the change from having to read handwritten exams to being able to read laptop-generated typewritten ones. In-class use of laptops has not had such a warm reception, however. The question whether to ban laptops from the classroom has generated considerable controversy, which illuminates the ways in which laptops could alter the in-class experience.<sup>225</sup> Those who have banned laptops or considered doing so emphasize various effects. Laptops are a distraction in a way that is not true of notebooks for handwriting; students can do almost anything—check email, send instant messages, watch movies, view pornography, play games—rather than pay attention to what’s going on in class, and they do.<sup>226</sup> These activities can have an impact on other students in the class. At a minimum, they likely mean that the student engaged in them is not ready to respond to questions about the class discussion.<sup>227</sup> Beyond that, laptops can distract other students in the classroom.<sup>228</sup> Altogether, they can harm class discussion.<sup>229</sup>

Laptop computers also permit students to take down everything, a “stenographic” approach to class that is inconsistent with the sort of analytical activity classroom discussion is designed to stimulate.<sup>230</sup> Other faculty counter that the real problem is boring classes; they say that the solution is to liven up classes, partly with technological whiz-bang adjuncts to the instructional enterprise.<sup>231</sup> This debate is ongoing, but it underscores the potential effect of technology on the law school experience. Obviously, those who favor distance learning via computer are likely to place less stress on traditional in-class instructional practices than most. But for the present, it seems that the impulse is to adapt that technique; Langdell’s method has not been killed by laptops.

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224. See *supra* note 70 and accompanying text.

225. See Kevin Yamamoto, *Banning Laptops in the Classroom: Is it Worth the Hassles?*, 57 J. LEGAL EDUC. 477 (2007) (citing multiple sources).

226. See *id.* at 487–89.

227. *Id.* at 487.

228. *Id.* at 487–89.

229. *Id.* at 489–90.

230. See *id.* at 490–91.

231. Yamamoto, *supra* note 225, at 481.

The out-of-class character of legal education may change. Whether to instruct students on legal research in libraries rather than solely online can be debated.<sup>232</sup> The law school casebook “is probably on its way to extinction,” according to one advocate of electronic casebooks.<sup>233</sup> But that seems not to have happened yet; even if we have arrived at the paperless law office, we have not arrived at the paperless law school. The debate over whether to ban laptops from the classroom underscores this point. One of the proposed reasons for doing so is to permit students more space to have casebooks open before them.<sup>234</sup> Surely banning laptops from the classroom is not consistent with relying on electronic casebooks, unless there is some other way for students to use electronic casebooks.

So for the near future, it seems likely that the profession will find that newly minted lawyers have emerged from a law school experience relatively similar to the experience of past generations. Their experience beyond law school may vary more significantly. Concern in the profession about the limited writing skills of many new lawyers will probably deepen as a generation steeped in instant messaging and its indifference to conventional grammar arrives at the office. The short attention spans of this newest generation may present challenges also. But as jurors are increasingly drawn from the ranks of this newer generation, its lawyers may be singularly effective in tailoring their messages to suit the new-style juror.

Perhaps the greatest change to legal education wrought by electronic communications has been for faculty, not students. They can now exchange ideas and drafts with colleagues across the country and across the world. Collaboration has become easier. Some types of data analysis—important in a day of multidisciplinary work—are considerably easier. And, perhaps most importantly, now there is blogging. It is said that about ten percent of all adult Americans have

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232. See, e.g., Sarah Hooke Lee, *Survey on Access and Teaching of Alternative Legal Research Using Internet Portals and Gateways*, in 12 BRIEFS IN LAW LIBRARIANSHIP SERIES 3–4 (Roberta Studwell ed., 2006) (describing the evolving methods of teaching legal research); Ian Gallacher, *Forty-Two: The Hitchhiker's Guide to Teaching Legal Research to the Google Generation*, 2005 BERKELEY ELECTRONIC PRESS LEGAL SERIES No. 701, at 8, <http://law.bepress.com/expresso/eps/701> (discussing the “cultural conflict” between those who favor a “books first” approach and those who favor beginning with online research); Thomas Keefe, *Teaching Legal Research from the Inside Out*, 97 LAW LIBR. J. 117 (2005) (urging emphasis on online sources for teaching legal research).

233. Matthew Bodie, *The Future of the Casebook: An Argument for an Open-Source Approach*, 57 J. LEGAL EDUC. 10 (2007).

234. See Yamamoto, *supra* note 225, at 492 (“[T]here is no space for a laptop, casebook, and Codebook on their desks.”).

blogs.<sup>235</sup> Certainly a significant proportion of American law professors blog on a regular basis. Consider Professor Volokh, one of the most successful American legal scholars of his generation. He also has a blog, which regularly receives 20,000 hits a day.<sup>236</sup> The success of his blog has caused him to ask “just how much should we value our ‘traditional scholarship.’”<sup>237</sup> Others have considered similar issues.<sup>238</sup> Nonetheless, for the practicing lawyer legal scholarship has long since become relatively unimportant, and this shift in faculty behavior is unlikely to loom large.

In sum, although greater changes may occur, it does not appear that traditional legal education is poised for a metamorphosis into electronic legal education in a way that will present significant challenges to the profession.

### VIII. QUESTIONS ABOUT CAUSATION AND NOSTALGIA

Law practice has changed greatly in the last fifty years, since the “golden age” identified by some.<sup>239</sup> These changes have presented challenges for the profession, and the advent of the Electronic Lawyer may add new challenges. But there seems too much temptation to treat the past as golden without looking sufficiently carefully at it, and too much temptation to treat such developments as the advent of pervasive electronic communications as causal factors when they should more properly be viewed, at best, as facilitators for changes whose underlying cause lies elsewhere. As *The Economist* observed in a recent study of governmental bureaucracy, “processing power and good software can make government more user-friendly and sometimes also more efficient, but technology on its own cannot compensate for the mistakes of bureaucrats and politicians.”<sup>240</sup> I pause here, there-

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235. See Kara Jessela, *Blogging's Glass Ceiling*, N.Y. TIMES, July 27, 2008, at ST 2 (reporting that fourteen percent of American men and eleven percent of American women have blogs).

236. See Eugene Volokh, *Scholarship, Blogging, and Tradeoffs: On Discovering, Disseminating, and Doing*, 84 WASH. U. L. REV. 1089, 1089 (2006).

237. *Id.*

238. For further discussion, see the symposium issue *Bloggership: How Blogs Are Transforming Legal Scholarship*, 84 WASH. U. L. REV. 1025–1261 (2006) (containing numerous articles discussing blogging and legal scholarship). Of particular interest are Lawrence B. Solum, *Blogging and the Transformation of Legal Scholarship*, 84 WASH. U. L. REV. 1071 (2006); James Lindgren, *Is Blogging Scholarship? What Do You Want to Know?*, 84 WASH. U. L. REV. 1105 (2006); Orin S. Kerr, *Blogs and the Legal Academy*, 84 WASH. U. L. REV. 1127 (2006); Randy E. Barnett, *Caveat Blogger: Blogging and the Flight from Scholarship*, 84 WASH. U. L. REV. 1145 (2006).

239. See, e.g., GALANTER & PALAY, *supra* note 7, at 20–36 (describing 1950s and 1960s as the “golden age” of private law practice).

240. *The Electronic Bureaucrat, A Special Report on Technology and Government*, ECONOMIST TECH & GOV'T REP., Feb. 16, 2008, at 4.

fore, to caution that if the “fixer” portrayed in *Michael Clayton* is indeed the future of the Electronic Lawyer, it may not be because of the electronic aspects of the lawyer’s practice.

The sociologist C. Wright Mills saw larger forces at work more than fifty years ago when he reflected on the mid-century fate of professions in America:

In no sphere of twentieth-century society has the shift from the old to the new middle-class condition been so apparent, and its ramification so wide and deep, as in the professions. Most professionals are now salaried employees; much professional work has become divided and standardized and fitted into the new hierarchical organizations of educated skill and service; intensive and narrow specialization has replaced self-cultivation and wide knowledge; assistants and sub-professionals perform routine, although often intricate, tasks, while successful professional men become more and more the managerial type.<sup>241</sup>

Mills’s description captures many aspects of the modern law firm that trouble thoughtful legal professionals. Law firms now feature salaried lawyers in place of true partners; standardized, specialized work in place of the generalist orientation of old; and hierarchy with numerous layers of lawyers ranging from equity partners to other “partners” to associates to staff attorneys to contract attorneys, all sometimes governed by a nonlawyer firm manager. Writing in the 1950s, Mills was struck that the professions of law and medicine “remain free” and that they “have in a curious new way become a new seat of private-enterprise practice.”<sup>242</sup> It seems that developments since the 1950s—the growth of the commercial law firm for lawyers and the growth of managed care for doctors—have eroded their prior exceptional status. For many—particularly Dean Kronman<sup>243</sup>—these developments have also undercut critical features of what they do as professionals.

Whether the lawyer-statesmen Dean Kronman reveres predominated in a prior era is at least uncertain, however. In 1905, Louis Brandeis asserted that “able lawyers have, to a great extent, allowed themselves to become adjuncts of great corporations.”<sup>244</sup> Two years later, John Dos Passos, Sr. (father of the great novelist) wrote that in his modern world “[l]awyers are made up to be mere instruments for their clients, without any attention being paid to their

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241. MILLS, *supra* note 19, at 112; see also DONALD A. SCHÖN, *THE REFLECTIVE PRACTITIONER: HOW PROFESSIONALS THINK IN PRACTICE* 5 (1983) (asserting that “there has been a virulent ideological attack on the professions, mostly from the Left”).

242. MILLS, *supra* note 19, at 112–13.

243. See KRONMAN, *supra* note 4.

244. Louis Brandeis, *The Opportunity in the Law*, 39 AM. L. REV. 555, 559–61 (1905), quoted in HEINZ ET AL., *supra* note 140, at 180.

duties to the State.”<sup>245</sup> He asserted that the legal profession reached its zenith just before the Civil War,<sup>246</sup> although he also traced the emergence of unprofessional tendencies to 1275, when lawyers began representing individual clients.<sup>247</sup> He also lambasted the Langdellian case method.<sup>248</sup>

Connecting this welter of century-old views to the issues embroiling the profession today is not easy. As early as 1939, a writer lambasted the “law factories,” using a term he said was “widely used in the legal profession.”<sup>249</sup> Compared to the law firms of today, of course, pre-World War II law firms look like intimate and congenial places. And Dos Passos’s high-toned rhetoric might be measured against some of his actions. Thus, Howe & Hummell, the “Cadwalader, Wickersham & Taft of low practice” of the era,<sup>250</sup> frequently turned cases over to Dos Passos “when it was felt that the name of the shyster firm would be a liability.”<sup>251</sup> Moreover, Howe & Hummell itself was regarded as a “law factory” in the late nineteenth century.<sup>252</sup>

Whatever golden age one invokes—whether before the Civil War or after World War II—was also an age of pervasive ethnic and racial discrimination.<sup>253</sup> Even Dean Kronman acknowledges that large law

245. JOHN R. DOS PASSOS, *THE AMERICAN LAWYER: AS HE WAS—AS HE CAN BE* 50–51 (1907). “The modern idea of a great lawyer is one who can most successfully *manipulate* the law and the facts.” *Id.* at 130–31.

246. *Id.* at 31.

247. *Id.* at 9–11.

248. As Dos Passos explains:

Modern methods of legal education are akin to the age. Lawyers are machine made. . . . The aim of law schools and colleges is to manufacture the lawyers quickly. Hardly any of the instructors or professors have any practical knowledge of the profession. They are theorists and students. They have no clinical experience.

*Id.* at 55.

249. See Ferdinand Lundberg, *The Law Factories: Brains of the Status Quo*, HARPER’S MAG., July 1939, at 180, 180. Lundberg posited that “[m]any lawyers have quit the law factories to escape monotony” due to “[t]he robotization to which the members of large law-office staffs lend themselves.” *Id.* at 182.

250. RICHARD H. ROVERE, *HOWE AND HUMMELL: THEIR TRUE AND SCANDALOUS STORY* 123 (1985) (1947). Rovere reports that Howe & Hummell “had bribed judges, suborned perjury, and engaged in every other malpractice.” *Id.* at 73.

251. *Id.* at 49.

252. Rovere recounts:

“Talk about your law factories,” one local attorney, a man who started his career as an office boy with Howe & Hummell fifty years ago, recalled the other day, “that was the only one I ever heard of that had a night shift. The doors were open around the clock. You could get a lawyer from Howe & Hummell at four in the morning if you wanted to.”

*Id.* at 125–26.

253. See, e.g., Eli Wald, *The Rise and Fall of the WASP and Jewish Law Firms*, 60 STAN. L. REV. 1803 (2008) (describing the discrimination against Jewish lawyers at leading firms in the period after World War II).

firms have improved in that sort of egalitarian terms.<sup>254</sup> Whether law firms today are entirely at the beck and call of their clients is not entirely clear. Thus, Professor Heinz and his colleagues, writing in 2005, note that “[t]he superior social position of business lawyers may permit them to exercise considerable professional autonomy even though their clients typically have bargaining power.”<sup>255</sup> In *Michael Clayton*, the head of the litigation department decides to violate his code of loyalty to the client and publicize harmful documents about what the client did. Without going that far, others may influence what clients do.

But this seemingly eternal tension about independence and loyalty to clients is ultimately somewhat beside the current point. The real question is whether the circumstances of the Electronic Lawyer are singular because she is the *electronic* lawyer. That seems difficult to establish. As Professors Galanter and Henderson have recently emphasized, technological changes have pervasively affected the practice of law.<sup>256</sup> To take just one illustration, E-Discovery has changed the way many firms operate. Some treat it as a practice area.<sup>257</sup> More have responded by creating a new “professional” position within the firm for staff attorneys dedicated to E-Discovery matters, or instead have turned to temporary attorney employees to handle the document review work that is required for E-Discovery.<sup>258</sup> These professionals operate in a world very much like the one described by Mills,<sup>259</sup> in dead-end positions designed to free up regular associates from performing these tasks.<sup>260</sup> They may work in “some grim environments,” and most firms don’t allow temps to make phone calls, use the In-

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254. See KRONMAN, *supra* note 4, at 291–92.

255. HEINZ ET AL., *supra* note 140, at 115.

256. See *supra* note 134 and accompanying text.

257. See, e.g., Widman, *supra* note 216, at 26 (reporting that some firms have established formal E-discovery practice groups); Janet H. Kwon & Karen Wan, *High Stakes for Missteps in EDD*, N.J. L.J., Dec. 31, 2007, at E2 (observing that “it is unclear to what extent e-discovery can be considered a specialized substantive expertise in the same vein as, for example, patent law, or whether it is more akin to a learnable skill such as taking depositions”).

258. See Julie Friedman, *Temporary Solution*, AM. LAW., Sept. 2006, at 97 (describing the use of temporary lawyers to handle E-Discovery issues); Kellie Schmidt, *McDermott Plans to Fill Cheap Seats*, S.F. RECORDER, Nov. 1, 2007, at A1 (describing plan by Chicago firm McDermott, Will & Emery to create a “new tier of attorneys”—permanent contract associates—to handle E-Discovery).

259. See *supra* note 241 and accompanying text.

260. Thus, an attorney at the Washington D.C. firm Howrey explained: “Associates understand that if [they] come to Howrey, the grunge work typically offered to junior associates is going to go to several layers of folks devoted to that work. That’s a major selling point.” Friedman, *supra* note 258, at 101.



ternet, or use email on the job.<sup>261</sup> For temporary E-Discovery attorneys, this is hardly a golden age.<sup>262</sup>

But the more general notion that pervasive changes in the legal profession resulted from technological advances is harder to accept.<sup>263</sup> As we've already seen, some of these changes began over a century ago,<sup>264</sup> and although many relate in a general way to the phenomenon of "globalization," they hardly seem to be fueled primarily by the advent of the Electronic Lawyer.

More generally yet, the whole notion that technology drives social change is at least debatable. Seventy-five years ago, Lewis Mumford set out to explore the connection between social change and the development of what he called "the machine," by which he meant the aggregate set of mechanized products on which twentieth-century society depended.<sup>265</sup> His thesis was that something more than technological innovation was necessary to supply the germ of social change: "Before the new industrial processes could take hold on a grand scale, a reorientation of wishes, habits, ideas, goals was necessary."<sup>266</sup> The need for this transformation of attitudes, he said, emerged only in Western Europe:

Other civilizations reached a high degree of technical proficiency without, apparently, being profoundly influenced by the methods and aims of techniques. All the critical instruments of modern technology—the clock, the printing press, the water-mill, the magnetic compass, the loom, the lathe, gunpowder, paper, to say nothing of mathematics and chemistry and mechanics—existed in other cultures. The Chinese, the Arabs, the Greeks, long before the Northern European, had taken most of the first steps toward the machine . . . . They had machines; but they did not develop "the machine." It remained for the peoples of Western Europe to carry the physical sciences and the exact arts to a point no other culture had reached, and to adapt the whole mode of life to the pace and capabilities of the machine.<sup>267</sup>

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261. *Id.* at 100.

262. An anonymous piece in the *ABA Journal* illustrates. The author, a former law firm associate who was laid off, found work as a contract attorney doing "mind-numbing" work reviewing electronic materials for production in discovery. Anonymous, *Down in the Data Mines: A Tale of Woe from the Basement of Legal Practice*, A.B.A. J., Dec. 2008, at 32. The author adds that "[i]n social situations I avoid telling people what I do—I am somewhat embarrassed," for "[i]f I tell them that I am a contract attorney, it is to admit that—despite being highly educated—I spend my days reading someone else's emails." *Id.*

263. See Marcus, *supra* note 10.

264. See *supra* notes 244–245 and accompanying text.

265. LEWIS MUMFORD, *TECHNICS AND CIVILIZATION* 9–59 (1934).

266. *Id.* at 3.

267. *Id.* at 4.

More recent work has carried forward this analysis,<sup>268</sup> although there are surely dissenting voices.<sup>269</sup> For our purposes, it suffices to recognize that one must be cautious in attributing change in social institutions—such as the practice of law—to technological change. The modern megafirm may be dependent on technology,<sup>270</sup> but it is a product of much more.

## IX. CONCLUSION

The pervasive power of electronic communication is breathtaking. In Egypt, for example, authorities focus their pursuit of political dissidents mainly on their blogging activities.<sup>271</sup> In London, authorities clamp down on partying on the Tube that is Internet-dependent.<sup>272</sup>

As promised, this discussion has been impressionistic, speculative, and general. I began with a vision of the legal profession resembling the world of *Michael Clayton* more and more, and sought to determine whether the central role of electronic communications in the movie portended such a development for lawyers who themselves rely heavily on electronic devices. Perhaps the electronic element of lawyering might even be responsible for the malaise portrayed by Dean Kronman.<sup>273</sup>

I conclude with a much more nuanced view. Perhaps electronic diagnostic methods, communications, and treatment portend a revolution in the medical profession,<sup>274</sup> but that does not seem imminent in

268. See, e.g., FRIEDEL, *supra* note 18, at 2 (“The story of modern technology is largely a Western one, at least to the extent that we focus on the creation of the technologies and the technological order that is now dominant throughout the world at large.”); Jill Lepore, *Our Own Devices: Does Technology Drive History?*, *NEW YORKER*, May 12, 2008, at 118.

269. For an examination of divergent attitudes toward the Western concept of “progress,” see PROGRESS: FACT OR ILLUSION?, *supra* note 63. See particularly Ali A. Mazrui, “Progress”: *Illegitimate Child of Judeo-Christian Universalism and Western Ethnocentrism—A Third World Critique*, in PROGRESS: FACT OR ILLUSION?, *supra* note 63, at 153.

270. See *supra* note 134 and accompanying text.

271. See *Price Hike Protesters Freed*, *EGYPTIAN MAIL*, June 3, 2008, at 1 (describing release of men arrested for allegedly fomenting protests at a textile plant over price hikes; one of them reported that “questioning focused mainly on his blog and his connection to other bloggers”).

272. See Paul Bracchi & Laura Moss, *Facebook Tube Party that Ended in Drunken Riot Was Organised by City Banker*, *LONDON DAILY MAIL*, June 3, 2008, available at <http://www.dailymail.co.uk/news/article-1023417/Facebook-Tube-party-ended-drunken-riot-organised-City-banker.html>. One wild party on the London Tube organized by Internet posting led to several arrests. *Id.* Bracchi and Moss see two morals to draw from the story: (1) banning alcohol from the Tube is necessary; and (2) the power of the Internet is undeniable. *Id.* “Could an event billed as no more than a good-natured get-together have been organized—and degenerated so quickly and dramatically into scenes more commonly associated with football terraces—without sites such as Facebook?” *Id.*

273. See *supra* notes 4–6 and accompanying text.

274. See *supra* notes 18–63 and accompanying text.

the legal profession. Computers will not soon supplant lawyers in providing client advice,<sup>275</sup> but the stresses of the electronic law office may be key causes of the advent of a 24/7 life for many lawyers and the resulting burnout and concern with work-life issues.<sup>276</sup> As Professors Galanter and Henderson conclude, "because of the relentless pace of modern large law firm practice, there are few (if any) partners who regard the present as a golden era."<sup>277</sup> A two-tiered profession may be emerging more forcefully, but that problem is not necessarily worsened by high-tech advances.<sup>278</sup> Our balkanized system of lawyer regulation—already under pressure—will come under more pressure due to the advent of "global" law practice enabled by electronic communications.<sup>279</sup> Other elements of lawyers' lives—the protection of the attorney-client privilege, the protection of client confidences more generally in the surveillance society, the traditional jury trial, and the traditional method of educating lawyers—may also feel stresses.<sup>280</sup>

But in the end, continuity seems to outweigh change. The legal golden age of the past seems always, on inspection, to have feet of clay. The current age, for all its difficulties, may have significant advantages over the former periods. More importantly for our purposes, it seems that although electronic means are central to current legal practice, they are only to a limited extent the cause of those aspects of practice that tempt some lawyers to despair. The Electronic Lawyer is not Michael Clayton, and need not necessarily either be a happy or unhappy lawyer.

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275. See *supra* notes 64–107 and accompanying text.

276. See *supra* notes 108–135 and accompanying text.

277. Galanter & Henderson, *supra* note 134, at 1871.

278. See *supra* notes 136–148 and accompanying text.

279. See *supra* notes 149–175 and accompanying text.

280. See *supra* notes 176–238 and accompanying text.



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E-DISCOVERY AND BEYOND: TOWARD BRAVE NEW  
WORLD OR 1984?

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## E-DISCOVERY BEYOND THE FEDERAL RULES

Richard L. Marcus†

Keynote Address given at  
*The University of Baltimore Law Review*  
Symposium on March 13, 2008

Those who work on the Federal Rules of Civil Procedure (Federal Rules) are sometimes tempted to think that the world revolves around them. With e-discovery, that temptation has been particularly strong because the federal rulemakers began addressing it before most others did, and because the amendments to the Federal Rules have received a great deal of attention. As one who spent about a decade considering those issues,<sup>1</sup> I am peculiarly tempted to this sort of self-absorption.

Now, the federal rulemaking process is over, and it is time to reflect on the other forces that will affect e-discovery in the future, in particular the other sources of rules that may govern this form of discovery. This symposium is an occasion for that sort of evaluation, particularly important here because Maryland has leading examples of two other sources of direction on e-discovery—district court guidance and state court rulemaking—that will be addressed by those experienced with those activities.

I intend to set the scene for that evaluation in four steps. First, I will stress the broad impact of e-discovery. Second, I will indulge in a bit of a travelogue to chronicle and summarize the federal rulemaking experience, because that experience should be a useful touchstone for others considering similar efforts. Third, I will identify three sources of e-discovery regulation or guidance from beyond the Federal Rules. And fourth, I will reflect on the perennial rulemaking question—are rules better? I will then offer some concluding thoughts.

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1. Since 1996, I have been the Special Reporter of the Advisory Committee on Civil Rules, working largely on discovery matters. In my speech and this Essay, however, I speak only for myself and not for any organization or other person.

## I. THE BROAD IMPACT OF E-DISCOVERY

It is hard to miss e-discovery nowadays. Indeed, the use of evidence from electronically stored information has emerged in the international sphere. Recently, for example, armed forces from Colombia killed a rebel leader just inside Ecuador and captured his laptops, supposedly yielding information about support the rebels were receiving from the government of Venezuela, and Colombia said it might file charges against Venezuelan President Hugo Chavez in the International Criminal Court.<sup>2</sup> That episode is not, of course, what we would usually think of as e-discovery, but it hints at the potential importance of forensic use of electronically stored information.

Focusing more closely on our topic today, we must recognize how riveting it has become in American litigation. As Judge (now Dean) John Carroll has said: “[E]lectronic discovery is the hottest topic in civil litigation. Articles on the issue routinely run in the *Wall Street Journal* and *New York Times*, and there are more seminars . . . on the topic than kudzu in Alabama.”<sup>3</sup> Judge Carroll comes from Alabama, so he knows whereof he speaks regarding kudzu.

I cannot identify all impacts of e-discovery today, but believe we should focus particularly on three:

### A. Corporate America

As I will mention later, corporate America did not initially seem to appreciate the importance of e-discovery. It is not likely that Microsoft Corporation foresaw the uses to which internal email messages could be put in *U.S. v. Microsoft*, the first occasion when such evidence got a lot of attention. More recently, however, corporate America has awakened to e-discovery in its many guises. Rather than taking Deep Throat’s recommendation to “follow the money,” the modern investigator may be better advised to “follow the email trail.” In short, for most organizations, it is not too far from the truth to say that *everything* is in electronically stored information; it could be viewed as the “corporate equivalent of DNA.”<sup>4</sup> And that

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2. See Alexei Barrionuevo, *U.S. Studies Rebels’ Data for Chávez Link*, N.Y. TIMES, Mar. 14, 2008, at A8.
  3. John L. Carroll, *E-Discovery: A Case Study in Rulemaking by State and Federal Courts*, in THE RULE(S) OF LAW: ELECTRONIC DISCOVERY AND THE CHALLENGE OF RULEMAKING IN THE STATE COURTS 45, 46 (Pound Civil Justice Inst. ed., 2005) [hereinafter THE CHALLENGE OF RULEMAKING].
  4. Nicholas Varchaver, *The Perils of E-mail*, FORTUNE, Feb. 17, 2003, at 96.

“everything” would likely include a lot more loose banter than previously would have been written down.

Corporate America has reacted to this new situation. One reaction is to urge employees to be more circumspect in what they write in email. Some employers reportedly have tried formally to school their employees in how to use email. In the same vein, law schools have begun offering courses in use of email.<sup>5</sup>

Retraining and self-control are probably not by themselves sufficient. Attention has therefore turned also to document retention. This can be serious business. Consider, for example, the recent report that Morgan Stanley agreed to pay “\$12.5 million to resolve charges that it failed to produce e-mail in arbitration cases and falsely stated that the messages were lost in the Sept[ember] 11[th] . . . attacks.”<sup>6</sup> The September 11th attacks did indeed destroy the firm’s servers, but many of the emails had been saved on other servers or on employees’ individual computers. So they could still be found.

Given these concerns, it is not surprising that the market has responded. One response is the self-destructing email message. Some of us remember a TV show called *Mission Impossible*, which began each episode with the chief protagonist receiving instructions on his next assignment on a tape that promptly self-destructed. The *Wall Street Journal* reported in mid-2006 that new services are available that permit the sender of an email message to arrange that it will self-destruct after the passage of a pre-set time.<sup>7</sup> It is called Kablooey Mail. A 2007 article in the *National Law Journal* reported that insurers have begun to focus on email in setting premiums for their errors and omissions policies. According to the author—who identifies himself as head of his law firm’s “e-discovery practice group”—“businesses seeking liability insurance will face questions from their insurers regarding the robustness of the company’s document-retention and e-mail-retention policies and procedures; [and] the existence, or lack, of an electronic discovery readiness plan . . . .”<sup>8</sup>

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5. See Eron Ben-Yehuda, *Sending Unwise E-Mails Can Be Hazardous to Your Career*, S.F. DAILY J., Oct. 11, 2004, at 4; see also Richard L. Marcus, *E-Discovery & Beyond: Toward Brave New World or 1984?*, 25 REV. LITIG. 633, 644 (2006).

6. Reuters, *Wall St. Firm Settles Case on Handling of E-Mail*, N.Y. TIMES, Sept. 28, 2007, at C5.

7. See Andrew LaVallee, *This Email Will Self-Destruct*, WALL ST. J., Aug. 31, 2006, at D1.

8. Edwin M. Larkin, *Insurers Are Getting in on the Act*, NAT’L L.J., Aug. 20, 2007, at 51.

Besides preparation for e-discovery, companies also use email as a mode of monitoring what their employees do. In 2001, it was reported that about three-quarters of U.S. companies monitored employee use of the Internet and spied on employee email.<sup>9</sup> “Snoop” software has been developed to assist companies in doing this surveillance.<sup>10</sup> Thus, it may be that failure to monitor employee activities could itself expose a company to liability for workplace harassment and similar claims; at least it seems that companies are regularly using electronically stored information to detect it.

In sum, by now, e-discovery has become a very big deal for corporate America.

### *B. Law Firms*

Whatever becomes a big deal for corporate America is likely to become a big deal for many law firms also. E-discovery surely has become a big deal for law firms.

To begin with, a number of law firms have created e-discovery departments. Thus, the author of the article about insurers’ attention to e-discovery identifies himself as the head of his firm’s e-discovery department. It may be that this is necessary as a matter of self-preservation for firms. According to one vendor, “[w]e have already observed . . . many companies changing counsel because of the lack of expertise of certain law firms regarding electronic discovery.”<sup>11</sup>

This self-preservation may go beyond keeping clients; malpractice concerns loom in the background. According to two lawyers writing in the *National Law Journal* in December 2007, “[i]n the context of electronically stored discovery, the skills and legal knowledge that might be deemed an essential part of ‘competency’ are rapidly changing with technological advances,” and as a result it is “highly probable that malpractice claims will largely center on counsel’s competency in advising clients as to preservation and production of e-discovery.”<sup>12</sup>

E-discovery may further affect the organization of law firms. The Chicago-based firm McDermott, Will & Emery, for example,

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9. Kevin Livingston, *Battle over Big Brother*, S.F. RECORDER, Aug. 30, 2001, at 1.
  10. John Schwartz, *Snoop Software Is Generating Privacy Concerns*, N.Y. TIMES, Oct. 10, 2003, at C1.
  11. Michael R. Arkfeld, *Growing Pains for the Amended Federal Rules*, in AM. LAW (SPECIAL ADVERTISING SECTION; TRIAL TACTICS & TECHNOLOGY; THE NEW HORIZONS OF E-DISCOVERY) (2007) (on file with author).
  12. Janet H. Kwuon & Karen Wan, *High Stakes for Missteps in EDD*, N.J. L.J., Dec. 31, 2007.



reportedly plans to create a new tier of attorneys—perhaps to be called permanent contract associates. Part of the explanation is that regular associates have become very expensive, and “electronic discovery has dramatically increased the amount of basic work that usually goes to those high-priced associates.”<sup>13</sup> E-discovery, then, may be an important stimulus in creating this new variety of associate. And for all associates, it may transform document review. Formerly occupied by review of hard copies in client quarters, perhaps in remote locations, it may now instead involve days or weeks before computer screens. Whether this is an improvement could be debated.

Law firms may also be more inclined to consider outsourcing because of e-discovery. A January 2008 article in the *San Francisco Recorder* reported, for example, that “[h]igh rates and the increasing bulk of e-discovery have pushed the associate general counsel of San Francisco-based Del Monte Foods to seriously consider using sources outside his outside law firm for the grunt work of litigation.”<sup>14</sup> In February 2008, another article reported that the Washington-based law firm Howrey was opening an office in India that “will handle document management in litigation.”<sup>15</sup>

Even where they retain their traditional clients’ work in-house, law firms may find their role changing. As noted again below, the challenges and stresses of e-discovery seem to be putting an unprecedented premium on outside counsel’s familiarity with their clients’ information-management arrangements and capabilities.<sup>16</sup>

Thus, at bottom, e-discovery could have a broad effect on law firms, possibly creating new practice groups (or even what one would describe as new practices), presenting a new breed of malpractice claims, rearranging the internal hierarchy of the firm, and leading to outsourcing in various manners. Yet at the same time, it seems that many lawyers are far behind the curve on e-discovery issues. A February 2008 article in the *National Law Journal*, for example,

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13. Kellie Schmitt, *McDermott Plans to Fill Cheap Seats*, S.F. RECORDER, Nov. 1, 2007, at 1.
  14. Zusha Elinson, *GCS Embracing Outsourced Work*, S.F. RECORDER, Jan. 24, 2008, at 1; see also Aruna Viswanatha, *Inside Out: Working the Split Shift at an Indian Legal Outsourcing Company*, AM. LAW., Mar. 2008, at 20 (reporting that the estimated number of people working at legal outsourcing firms in India tripled from 1,800 to almost 6,000 lawyers between March 2005, and the end of 2006, and that document review projects done by these firms are typically billed at \$15 to \$25 per hour).
  15. Daphne Eviatar, *Howrey Opens India Office for Document Management*, S.F. RECORDER, Feb. 11, 2008, at 3.
  16. See *infra* Part V.

reports that “lawyers specializing in legal technology[ ] report they still encounter large numbers of lawyers who ask: ‘What in the world is metadata and why should we be worried?’”<sup>17</sup> The article recounts the debate about whether it is proper for lawyers to search for metadata in files received from other counsel and the divergence in advice from state ethics authorities on this subject. One point worth noting is that this debate underscores the potential malpractice issues mentioned above.

### C. *The Vendor Phenomenon*

Lawyers like to think of themselves as independent actors; they may hire outsiders—such as expert witnesses or consultants—to assist them in doing their professional jobs, but ultimately they are free-standing professionals providing advice and representation to the client.

With e-discovery, the advent of departments devoted to that activity may foster a continuing sense of independence, but the growing importance of e-discovery vendors calls it into question. Almost unknown just a few years ago, e-discovery vendors have become a very big deal. One forecast is that their revenues during 2009—next year—will top \$4 billion.<sup>18</sup> For lawyers, deciding whether to hire a vendor, and selecting a vendor, may involve important new professional skills.

Making a poor choice of vendor can certainly cause headaches for lawyers. In January 2008, for example, it was reported that the New York law firm Sullivan & Cromwell had sued an e-discovery vendor in federal court in New York for “untimely and inaccurate” work that allegedly hindered the firm’s staffing arrangements and caused it to expend extra resources on discovery. The law firm asked the court to rule that it should not have to pay \$710,000 in outstanding billing from the vendor.<sup>19</sup> The vendor promptly filed a countersuit in a Washington state court to compel payment of the bills, and the parties shortly thereafter announced a confidential settlement.<sup>20</sup> Also in January 2008, the Los Angeles law firm O’Melveny & Myers apologized for a discovery “mishap” in which more than 700,000

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17. Marcia Coyle, “Metadata” Mining Vexes Lawyers, *Bars*, NAT’L L.J., Feb. 18, 2008, at 1.

18. See GEORGE SOCHA & THOMAS GELBMANN, EDD SHOWCASE: EDD HITS \$2 BILLION 1 (2007), [http://www.sochaconsulting.com/2007\\_Socha-Gelbmann\\_ED\\_Survey\\_Public\\_Report.pdf](http://www.sochaconsulting.com/2007_Socha-Gelbmann_ED_Survey_Public_Report.pdf).

19. See *Sullivan Sues Over E-Discovery Problems*, S.F. RECORDER, Jan. 8, 2008, at 14.

20. See *Law Firm, E-Discovery Vendor Settle Suits*, S.F. RECORDER, Jan. 18, 2008, at 9.

emails were not turned over in discovery, blaming an “outside vendor” in a court filing about the discovery issue.<sup>21</sup> Getting it right in hiring a vendor can be a high-stakes business.

This is not an entirely comfortable position for law firms to be in; as explained in a recent article in the *California Lawyer*:

E-discovery has brought about a kind of role reversal in the legal profession: Now it’s the lawyers who find themselves surrounded by circling sharks. Once an e-discovery vendor identifies an attorney or law firm as a potential client, there’s often no end to the sales pitches, product demos, complimentary mouse pads, and follow-up emails from perky PR reps.<sup>22</sup>

Although one may find it a little difficult to worry about the plight of Sullivan & Cromwell and O’Melveny & Myers as they attempt to deal with these “sharks,” the notion that even they might fall victim to overconfident vendors is unnerving to the rest of us.

At the same time, there can be uncertainty about whether there is really any need for a vendor at all. A continuing marketing theme from vendors is the riskiness for lawyers of “[t]rying to go it alone.”<sup>23</sup> In a sense, that’s the same sort of thing lawyers tell potential clients—you need a lawyer to protect yourself and should not try to proceed without one. Now, perhaps, the shoe is on the other foot.

But do lawyers always need to put on that shoe? An October 2007 article in the *California Lawyer* suggests that they need not: “[E]ven some e-discovery consultants caution against the overuse of outside experts. Except in complex cases, ‘a paralegal who has been sent to a workshop and trained on a piece of software can probably handle e-discovery,’ contends [an e-discovery vendor who sells such software].”<sup>24</sup> But another article in the same issue seems to point the other way: “Most comprehensive e-discovery setups must be customized for each case, and this is usually a job for the e-discovery installers or third-party consultants.”<sup>25</sup>

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21. See Dan Levine, *O’Melveny Says It’s Sorry for Missing E-Mails*, S.F. RECORDER, Jan. 23, 2008, at 1.

22. Tom McNichol, *The E-Vendors Cometh*, CAL. LAW., Feb. 2008, at 37.

23. See Julie Noble, *Dangers in E-Discovery*, LEGAL TIMES, June 3, 2002, at 15 (identifying “trying to go it alone” as the most common mistake in regard to e-discovery).

24. Eamon Kircher-Allen, *Electronic Expertise*, CAL. LAW., Oct. 2007, at 9.

25. Sandra Rosenzweig, *Up to Speed on E-Discovery*, CAL. LAW., Oct. 2007, at 28.

Lawyers contemplating these choices do so under a possible malpractice sword of Damocles. In the words of the already-quoted malpractice fearmongers:

Whether the use of e-discovery vendors can dispel e-competency obligations remains to be seen. Moreover, it is unclear to what extent e-discovery can be considered a specialized substantive expertise in the same vein as, for example, patent law or whether it is more akin to a learnable skill such as taking depositions . . . .<sup>26</sup>

Frankly, conceiving of e-discovery skills as akin to patent law seems implausible to this observer. Nonetheless, the question whether retaining a vendor will protect the lawyer underscores the potential for risk in the process right now. Failing to retain a vendor presumably means that the lawyer is entirely exposed to charges that one should have been hired. Having a paralegal do the job instead could look problematical if something goes wrong.

In sum, the vendor possibility underscores and complicates the challenges of e-discovery for lawyers.

## II. THE FEDERAL RULES EXPERIENCE AND THE AMENDMENTS' ORIENTATION

This is the travelogue portion of our program, for I spent a considerable portion of the last decade addressing the issues raised by e-discovery in service to possible amendments to the Federal Rules of Civil Procedure dealing with them. It is worth recalling that this is only a decade's experience and yet it covers virtually the entirety of the history of e-discovery.

As background, it is important to remember that the phenomenon of broad discovery is itself a relatively recent development in American litigation. As Professor Subrin showed a decade ago, the adoption of broad discovery in the original Federal Rules in the 1930s represented a revolution and created a regime never before seen anywhere.<sup>27</sup> And the initial version of those rules was relaxed further so that, by 1970, the era of broad discovery had reached its zenith. Most states followed the federal lead, either by adopting rules mirroring the federal provisions or expanding discovery under their own rules. But from the perspective of the rest of the world, where

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26. Kwuon & Wan, *supra* note 12, at E2.

27. See Stephen N. Subrin, *Fishing Expeditions Allowed: The Historical Background of the 1938 Federal Discovery Rules*, 39 B.C. L. REV. 691 (1998).

party-controlled discovery was an unknown thing, this produced a different reaction. As Professor Subrin has also written, it might be summed up with three words: “Are We Nuts?”<sup>28</sup>

In the U.S., a reaction began in the 1970s. In part, this reaction was fueled by developments in substantive law. After the 1930s, American substantive law evolved rapidly in ways that magnified the opportunity to seek relief in court. The first private federal securities fraud suit, for example, was in 1947. In the 1950s and 1960s, products liability law relaxed and expanded. Congress and state legislatures adopted many measures that permitted private suits—sometimes for statutory damages—on a variety of grounds. These substantive changes magnified the importance of broad discovery. So did technological developments. The introduction of the photocopier in the 1950s and 1960s meant that there was a great deal more to discover.

However one interprets the cause for the reaction, there is no question that there was a reaction in the U.S. starting a third of a century ago.<sup>29</sup> In terms of rule amendments, the basic orientation was to contain and constrain discovery rather than to abandon the basic commitment to pretrial access to important information. In 1983, this effort produced the proportionality provisions now in Rule 26(b)(2)(C). It also prompted the expansion of judicial management embodied in amendments that year to Rules 16(b) and (c). In addition, it produced the 1983 amendments to Rule 11 and the addition of Rule 26(g). Together, these changes not only required that lawyers sign filings in court and discovery papers, but also provided that they thereby certified the legitimacy of the litigation maneuvers in those papers. In 1993, further amendments fortified this containment effort—the meet-and-confer requirement of Rule 26(f), the discovery moratorium under Rule 26(d) until that conference occurs, and the disclosure requirements of Rule 26(a), which were designed to obviate discovery requests for certain basic information.

Despite these efforts, concern about discovery problems endured. That concern led to the Discovery Project of the Advisory Committee on Civil Rules, inaugurated in 1996. That project was, in a sense, born in Baltimore—it began as Judge Paul Niemeyer of the Fourth Circuit assumed the post of Chair of that Advisory Committee. I was

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28. See Stephen N. Subrin, *Discovery in Global Perspective: Are We Nuts?*, 52 DEPAUL L. REV. 299 (2002).

29. This reaction is chronicled in Richard Marcus, *Discovery Containment Redux*, 39 B.C. L. REV. 747 (1998).

given the opportunity to act as Special Reporter on this project. Although one could head for the law library to try to develop ideas for further discovery reforms, the more important thing to do was to obtain input from the practicing bar about what issues really warranted attention.

So the Advisory Committee convened several conferences of experienced lawyers to solicit ideas and feedback about possible rule amendments. The great majority of what those lawyers said dealt with matters that were expected. Besides specifics about individual possible rule changes, the overarching theme was that lawyers needed “adult supervision” from judges in the discovery arena.

But there was one big new thing that emerged from those conferences—e-discovery.<sup>30</sup> From the outset of this process of interacting with the bar that began in early 1997, the Committee was told that it was fighting the last war. “The real discovery issue is email,” many said. When the package of discovery amendments that emerged from the Discovery Project did not include any specifically keyed to e-discovery, the absence of such provisions produced unhappiness in some circles. A prominent Philadelphia lawyer, for example, came to the December 1998 hearing on those proposed amendments here in Baltimore and urged rulemaking to deal with e-discovery issues.

Dealing with e-discovery issues in the rules presented problems, however. These issues were new, and devising appropriate reactions was a major challenge. Some ideas suggested then may seem quite curious from today’s perspective. A number of people, for example, said that the right approach would be to declare somehow that email is not discoverable. Given the prominence of email in litigation of many types, one can appreciate how dramatic such a measure would be. Although they spoke vigorously of the problems that e-discovery presented, lawyers had few specific ideas about what to do to solve them. One thing was relatively clear, however—technological change was rapid, and e-discovery was a moving target. Coupled with the unfamiliarity of the terrain, this moving-target problem played a significant role in explaining the absence of e-discovery provisions in the package of amendments that went into effect in 2000.

Once that amendment package was completed, however, attention to e-discovery returned to the fore. In January 2000, the Chair of the

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30. For a chronicle of this activity of the Advisory Committee, see Richard Marcus, *Only Yesterday: Reflections on Rulemaking Responses to E-Discovery*, 73 *FORDHAM L. REV.* 1 (2004).

Advisory Committee and I attended the American Bar Association Section of Litigation leadership meeting and held an open-mic session with lawyers there about e-discovery. In addition, we were buttonholed during the event by lawyers concerned about these issues. Without overstating, it seems fair to say of these leaders of the bar that they probably had many prominent corporations among their clients. Assuming that's correct, the recurrent messages they offered were significant in at least two ways.

First, several said something like, "Amend the rules to make it clear that email and other computer information are subject to discovery." The explanation for this desire? "I can't get my clients to take this discovery seriously." Compare the current impact of e-discovery on corporate America,<sup>31</sup> and one can appreciate that there has been a major shift in reported corporate attitudes.

Second, many said, "Tell us exactly what to do." This sort of request often focused on preservation or form of production issues. The theme was that if the Advisory Committee would prescribe a precise protocol for handling e-discovery—perhaps even endorsing some specific computer program for dealing with it—it would provide the sort of assistance the lawyers were seeking. But a moment's reflection will demonstrate that such a course of action would not work. Computer programs to deal with e-discovery are commercial products, and the Committee could hardly endorse one of them, even if it were technologically knowledgeable enough to make a choice. And these products were continuously changing. Rule changes take years to accomplish, so even if one could make a choice in 2000 there would be no reason to think that it would still be the right choice by the time the rule changes went into effect, much less for years after that.

Throughout 2000, further study of e-discovery ensued. This effort culminated in a mini-conference in October 2000, that considered a package of possible areas for rule changes which corresponds significantly with those ultimately adopted in 2006—amending Rule 26(f) to call for early discussion of e-discovery issues, excusing responding parties from producing inaccessible electronically stored information unless ordered to do so by the court, addressing form of production, dealing with preservation of electronically stored information, considering allocation of costs of e-discovery, and

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31. See *supra* Part I.A.

responding to the problems presented by privilege waiver.<sup>32</sup> The reaction of the participants in this mini-conference was that the problems presented by e-discovery were not so acute as to warrant rulemaking right at the time, and that the particular rulemaking ideas that had emerged did not necessarily seem promising. The bottom line: Back off.

The Advisory Committee backed off for a couple more years. In September 2002, it wrote to about 250 carefully-selected lawyers nationwide seeking reactions on whether rulemaking for e-discovery would be a good idea.<sup>33</sup> The letter outlined the Committee's work on the subject so far and possible areas for rulemaking. It asked recipients to respond with their reactions. It also invited them to pass along the request to anyone else they knew who might have views on the subject. The 250 lawyers had been selected because they had been involved in CLE programs about e-discovery or otherwise were connected with these issues.

The response was not overwhelming. Although many responses were very thoughtful and helpful, there were only about a dozen of them. The Committee nonetheless began serious evaluation of e-discovery amendments in 2003, leading to a preliminary draft of proposed amendments published in August 2004. That package included features that eventually went into effect on December 1, 2006—amending Rule 26(f) to call for early discussion of e-discovery, particularly form of production, and of preservation of all sorts of discoverable material, amending Rule 34(b) to address form of production, amending Rule 26(b) to deal with problems of accessibility, amending Rule 37 to limit sanctions for loss of electronically stored information, and amending Rule 26(b)(5) to provide a protocol for handling situations in which assertedly privileged information had been produced.

The publication of the preliminary draft provoked intense interest. More than 250 written comments came in on the draft, and so many people signed up to testify about them that an extra day of hearings in Washington, D.C. had to be added to accommodate them all.<sup>34</sup> After

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32. See Memorandum from Rick Marcus, Special Reporter, Advisory Comm. on Civil Rules, to Participants in Oct. 27, 2000 Conference on Computer-Based Discovery at Brooklyn Law School (Oct. 4, 2000) (on file with author).

33. See Letter from Richard L. Marcus, Special Consultant, Discovery Subcommittee, to E-Discovery Enthusiasts (Sept., 2002) (on file with author).

34. Transcripts of the hearings and a summary of the comments are on file with the Administrative Office of the United States Courts, <http://www.uscourts.gov/rules/index.html>.



the comment period, significant refinements were made in several of the rule amendments, and they went forward. The federal rulemaking initiative was finished, at least for this phase.

### III. BEYOND THE FEDERAL RULES

Although the Federal Rules may be the most important set of rules, they are not the only ones. Lawyers and litigants need to pay attention to other sources, and those sources could produce markedly different treatments of these issues. For present purposes, it seems valuable to note three sources—state court rules, federal local rules, and international regulations.

#### A. *E-Discovery in the State Courts*

Some might think that e-discovery is the exclusive (or at least main) preserve of the federal courts. Those courts have many of the high-value, prominent lawsuits, and are centered in the larger cities. Yet if one reflects for a moment, one will realize that most litigation is in the state courts. And because most Americans by now utilize email and rely on computers for a variety of other activities, e-discovery would seem equally likely in state court litigation. Moreover, even the federal court experience suggests that e-discovery is not solely a big-city phenomenon. The first federal district courts to have local rules focused on e-discovery were in Arkansas and Wyoming, not New York or San Francisco.

The likelihood that state courts would experience e-discovery can be gleaned from popular culture. Consider a recent *New Yorker* cartoon showing a man seated at a desk looking quizzically about the contents of the desk drawer to a standing woman who says to him: “Oh that—that’s the hard drive from my first marriage.” Such a hard drive could be plumbed through e-discovery in a divorce case. Similarly, consider a recent headline in the *Oakland Tribune*: “Lawyers Dig into FasTrak Data.”<sup>35</sup> FasTrak is the computerized method of paying tolls for bridge crossings in the San Francisco Bay Area, and lawyers have found that it offers a dandy way of showing where opposing parties were. Thus, one can prove that the wandering husband was actually in Marin County with his squeeze rather than being (as he claimed to his wife) hard at work at the office in the city.

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35. John Simerman, *Lawyers Dig into FasTrak Data*, OAKLAND TRIBUNE, June 5, 2007, at 1.

Actually, Texas got a jump on the federal rulemakers in devising rules designed specifically for e-discovery; in 1996, it adopted a provision to regulate that form of discovery.<sup>36</sup> Justice Nathan Hecht of the Texas Supreme Court, who played a role in the drafting of the Texas provision, was a member of the Advisory Committee on Civil Rules when it considered federal e-discovery provisions. And the report then from Texas was that there were no cases interpreting the Texas provision, perhaps proof of its success.

However one interprets the Texas experience, it seems unavoidable that state courts will encounter e-discovery with growing frequency. Without meaning to be limiting, I suggest that there are many types of cases in which such discovery is likely:

*Commercial disputes:* Commercial disputes can readily be in state court, either because they do not satisfy federal court jurisdictional requirements or because the parties would prefer state court. Almost all commercial enterprises nowadays rely primarily or entirely on computers to store and generate the information on which they rely in their everyday operations. Just as in federal court, those cases will involve e-discovery.

*Marital litigation:* As the cartoon and newspaper article mentioned above suggest, marital litigation is likely to involve e-discovery. It seems that this likelihood is becoming reality. Thus, a September 2007 article in the *New York Times* offered the following report about divorce cases: “‘In just about every case now, to some extent, there is some electronic evidence,’ said Gaetano Ferro, president of the American Academy of Matrimonial Lawyers, who also runs seminars on gathering electronic evidence. ‘It has completely changed our field.’”<sup>37</sup> A New York state court divorce case, for example, involved what the court described as a “preemptive strike [by the wife] to clone the computer records” of the husband based on claims that he had in the past diverted marital assets.<sup>38</sup> In another New York state court case, the wife simply took the husband’s laptop to obtain access to information on his finances.<sup>39</sup> Similarly, in a Connecticut case, a court ordered a wife’s laptop seized.<sup>40</sup>

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36. See TEX. R. CIV. P. 196.4.

37. Brad Stone, *Tell-All PCs and Phones Transforming Divorce*, N.Y. TIMES, Sept. 15, 2007, at A1.

38. Etzion v. Etzion, 796 N.Y.S.2d 844 (N.Y. Sup. Ct. 2005).

39. Byrne v. Byrne, 650 N.Y.S.2d 499 (N.Y. Sup. Ct. 1996).

40. See Thomas B. Scheffey, *Locking Down a Laptop*, NAT’L L.J., Mar. 29, 2004, at 4.

By definition, divorce litigation is state court litigation.<sup>41</sup> State courts dealing with it will need to deal as well with e-discovery.

*Personal injury litigation:* Another staple of state court litigation is personal injury litigation. A bit of reflection suggests the possible importance of email and other electronic communications in such suits. For example, suppose the plaintiff, the day after the accident, sent an email message to his mother about his injuries. What would he be likely to say? Often, something like, “Don’t worry, Mom. I really wasn’t hurt at all.” If plaintiff later sues claiming serious injuries, wouldn’t the defense want to use this message as evidence?

This sort of situation probably presents serious preservation issues. Will the plaintiff delete the email message to his mother? Will the defendant be able to require the plaintiff to make considerable efforts to retrieve it? For the present, it is not clear whether such issues are being litigated, but the potential seems impossible to overlook.

It is not certain whether that sort of discovery has frequently occurred yet, but there is at least one appellate court case involving a remarkable dispute about access to a plaintiff’s home hard drive in a personal injury case.<sup>42</sup> Plaintiff received serious head injuries in a collision with defendant’s truck and claimed that the injuries prevented him from continuing to work. Plaintiff submitted expert testimony that he had suffered traumatic brain injury, significantly impairing his work and social capabilities. Witnesses called by plaintiff testified that he had difficulties with memory, planning, and controlling his temper, that he missed meetings, was confused, and could no longer make critical decisions. Defendant obtained production of plaintiff’s home computers and was able to show that somebody had accessed unallocated space on the laptop and “scrubbed” it using a “WipeInfo” program. Defendant’s expert also found child pornography on the computer.<sup>43</sup>

Defendant argued that plaintiff had “wiped” much of the offending child pornography from the computer, that his ability to do so contradicted his claims that he could not perform difficult tasks, that the presence of child pornography provided an explanation for his social difficulties unrelated to the accident, and that the spoliation of the hard drive of the laptop justified dismissal of plaintiff’s case. The trial court refused to dismiss, but did give an adverse inference

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41. See *Ankenbrandt v. Richards*, 504 U.S. 689 (1992) (upholding “domestic relations exception” to diversity litigation to exclude from federal court all cases involving divorce, alimony, or child custody disputes).

42. *Foust v. McFarland*, 698 N.W.2d 24 (Minn. Ct. App. 2005).

43. *Id.* at 27–29.

instruction. The jury nonetheless returned a verdict for more than \$11.3 million, and defendant appealed, urging the appellate court that the case should have been dismissed. The appellate court affirmed, finding the likely relevance of the lost evidence small and the adverse inference instruction sufficient.<sup>44</sup>

Certainly one could debate the relevance of the lost evidence in this case, particularly when compared to the high risk of unfair prejudice resulting from knowledge of the child pornography. Indeed, one could question the showing needed to justify such discovery in the first place. But the case emphasizes the potential for discovery from plaintiffs in personal injury cases.

*Discrimination litigation:* In a variety of contexts, American courts see discrimination claims. Often email communications lie at the heart of such cases.

*Theft of trade secrets:* Particularly in high-tech enterprises, there are often claims that former employees have stolen trade secrets. When their employers sue former employees, the employers frequently seek discovery of their computers to show that the former employees took the employer's proprietary information with them. There are several state court examples of such discovery disputes.<sup>45</sup>

The state courts outside Texas have certainly not been blind to the prospect of such discovery. To the contrary, both the Conference of Chief Justices and the National Commissioners on Uniform State Laws have drafted and promulgated models for states to follow in adopting rules for e-discovery. There are varying counts on how many states have moved toward adoption.<sup>46</sup> We are told that "[l]awyers accept state electronic discovery rules as inevitable and potentially helpful for clarifying thorny issues."<sup>47</sup> Even my home

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44. *Id.* at 28–29, 34.

45. *See, e.g.,* *Autonation, Inc. v. Hatfield*, No. 05-02037 2006 WL 60547 (Fla. Cir. Ct. Jan. 4, 2006) (court issuing injunction requiring return to plaintiff of all computer disks with plaintiff's information); *Elec. Funds Solutions v. Murphy*, 36 Cal. Rptr. 3d 663 (Cal. Ct. App. 2005) (defendants accused of converting plaintiff's assets while working for plaintiff); *Hildreth Mfg., L.L.C. v. Semco, Inc.*, 785 N.E.2d 774 (Ohio Ct. App. 2003) (claimed breach of agreement regarding formation of competitor of plaintiff); *Dodge, Warren & Peters Ins. Serv., Inc. v. Riley*, 130 Cal. Rptr. 2d 385 (Cal. Ct. App. 2003) (former employee of plaintiff allegedly took electronic trade secret information).

46. Sheri Qualters, *States Launching E-Discovery Rules*, NAT'L L.J., Oct. 8, 2007, at 1. (describing move by many states to adopt e-discovery rules).

47. *Id.*

state of California, after hesitating about doing so, has moved forward on proposed rules and statutes for e-discovery.<sup>48</sup>

So one place to look beyond the Federal Rules is in state court rules. As a generalization, it is comforting to those in the federal rulemaking effort to be able to report that many of these state court rules appear to resemble, and perhaps to emulate, the Federal Rules amendments that went into effect in 2006. To some extent, this experience may show that the federal rulemakers can still be leaders for the state courts.<sup>49</sup> In any event, it does show that those dealing with e-discovery must look beyond the Federal Rules.

### *B. Federal Local Rules*

The national rulemakers have what might be called a love-hate relationship with local rules. On one hand, at least some national rulemakers have been heard to suggest that there should be an absolute numerical limit on local rules, although counting them might prove challenging. In the 1980s, there was a Local Rules Project by the national rulemakers that produced a catalogue of local rules that went beyond the apparent authority for local rulemaking.<sup>50</sup> At the same time, local rules can be a proving ground for reforms that eventually find their way into the national rules.

Discovery provides examples of this interaction. A number of amendments to the national discovery rules can be traced to local rule provisions. Thus, numerical limitations on interrogatories and the 2000 amendment to Rule 5(d) to forbid filing of discovery papers can be traced to provisions in local rules that could have been challenged as exceeding the proper scope of local rules. On the other hand, the proliferation of divergent local regimes regarding initial disclosure—though explicitly authorized by the national rules—was an important stimulus behind the 2000 adoption of uniform initial disclosure provisions for the entire nation.

Sometimes the emergence of divergent local rule regimes is— as with the 2000 amendment of Rule 26(a)(1) on initial disclosure— itself a stimulus to national rulemaking. In the view of some, that

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48. Electronic Discovery: Legislation and Rules, (Item W08-01/Leg08-01) (proposed Jan. 2008), available at <http://www.courtinfo.ca.gov/invitationstocomment/documents/w08-01.pdf> (last visited Jan. 9, 2008).

49. See Richard Marcus, *Not Dead Yet*, 61 OKLA. L. REV. (forthcoming 2008) (using example of e-discovery to show that the federal rulemaking process retains the capacity to provide leadership in dealing with new issues).

50. See 12 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & RICHARD L. MARCUS, FED. PRACTICE & PROCEDURES § 3152, at 498–502 (2d ed. 1997).

situation was beginning to emerge with regard to e-discovery. Here are the views of a corporate general counsel:

[W]hat we began to see was a series of . . . inconsistent and somewhat troublesome [local] rules being adopted at the local district court level around the United States. Delaware would have one rule. New Jersey would have another rule. They were not consistent, and so a company with multinational . . . or multi-state operations might be facing one series of rules in one place and one in another. The result was we saw a need for a national, federal approach.<sup>51</sup>

This is, however, not the only approach to local rules. Judge Ronald J. Hedges, for example, has lamented that “it is unfortunate that the Judicial Conference or one of the committees on the Judicial Conference thinks as long as three districts have separate rules there is something evil, and you’ve got to have a national rule to deal with it.”<sup>52</sup>

There is likely no all-purpose resolution of the potential tension between local rules and national rules. On the one hand, to have local rules that diverge significantly from national rules can undermine the national scheme. On the other hand, local rules can provide implementing detail that is not appropriate for national rules. They can also respond to local legal culture in a way that would not likely be workable for a national rule. And they probably could be modified much more rapidly than a national rule.

Here in Maryland, the U.S. District Court has adopted not local e-discovery rules but a suggested protocol for e-discovery. It is a remarkably detailed and informative document, and likely to be very useful for counsel. As you review it, consider whether local rules would suitably contain so much detail, and reflect as well on the level of detail that would be suitable in a national rule that cannot be changed in less than five years. It may be that experience under Maryland’s suggested protocol will in time provide a basis for adopting local provisions that go beyond suggestions.

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51. Comments by Panelists, *in* THE CHALLENGE OF RULEMAKING, *supra* note 3, at 66, 69–70 (quoting Thomas Y. Allman, Esq.) [hereinafter Comments by Panelists].

52. *Id.* at 74 (quoting Hon. Ronald J. Hedges).

According to one source, a third of the U.S. district courts have adopted e-discovery local rules.<sup>53</sup> So this is another source of rules for those concerned with e-discovery.

### C. *International Limitations*

As noted above, the U.S. discovery revolution was not embraced abroad. To the contrary, many countries even adopted “blocking statutes” designed to impede or prevent U.S. discovery on their soil. One could say that the European attitude toward information-disclosure by defendants is the obverse of the American attitude. In this country, the criminal accused has the protection of the Fifth Amendment, but there is no right to remain silent for the accused in most European courts. In civil cases, on the other hand, the Europeans look with alarm at the idea of forcing defendants to reveal possibly harmful information, at least when the force is being applied by private plaintiffs. Here, of course, we have for 70 years embraced very broad privately-controlled information extraction from defendants.

These tensions in attitudes manifest themselves in a number of ways. In the wake of the September 11th attacks, European attitudes toward surveillance of potential terrorists seem to have been more cautious than the U.S. approach. Regarding discovery, the American judicial response has generally been skeptical about limiting U.S. discovery just because the information is located abroad. Thus, the Supreme Court has resisted the notion that U.S. district courts should curtail discovery regarding cases before them in deference to the Hague Evidence Convention<sup>54</sup> and affirmed that American courts have broad authority by statute to authorize U.S. discovery for use in foreign proceedings whether or not the same discovery would be authorized in the court in which the litigation is proceeding.<sup>55</sup> But the Court has recognized that there may be cases in which foreign law prevents a party to a U.S. case from complying with domestic discovery demands.<sup>56</sup>

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53. K & L Gates, <http://www.ediscoverylaw.com/2008/02/articles/resources/updated-list-local-rules-forms-and-guidelines-of-united-states-district-courts-addressing-ediscovery-issues/> (last visited Mar. 31, 2008) (listing rules in 38 district courts).

54. *Société Nationale Industrielle Aérospatiale v. U. S. Dist. Court*, 482 U.S. 522, 539–40 (1987).

55. *Intel Corp. v. Advanced Micro Devices, Inc.*, 542 U.S. 241, 259–63 (2004).

56. *See Societe Internationale Pour Participations Industrielles Et Commerciales, S. A. v. Rogers*, 357 U.S. 197 (1958) (overturning litigation-ending sanctions against litigant who could not comply with discovery due to Swiss laws restricting release of information).

There is at least a possibility that e-discovery will prompt a confrontation between the American attitude toward discovery and the European attitude toward privacy in relation to private civil litigation. Without claiming any breadth of understanding of the issues, I can affirm that they have surfaced. Reportedly, European data protection provisions may restrict responses to U.S. e-discovery.<sup>57</sup> There has been at least one effort (unsuccessful) to invoke such protections against a U.S. e-discovery order.<sup>58</sup> So, international limitations on data release constitute another source of directives for e-discovery beyond the Federal Rules.

#### IV. ARE RULES BETTER?

Having briefly canvassed the various sources of rules on e-discovery, one can turn to the question of whether it is better or worse to have rules. Those considering adopting rules might properly reflect on this question before acting.

The anti-rule view might be summed up by the attitude of a fellow American Law Institute (ALI) member I talked to more than twenty years ago at an ALI function. “The worst thing they ever did,” he asserted, “was to create a permanent committee on the Federal Rules.” Better, he thought, to leave the rules in their original open-ended form and rely on judges to develop case law to guide other judges on how to apply those rules. This attitudinal difference can be quite basic. When the Model Rules of Evidence were in the drafting stage, for example, John Henry Wigmore (he of the hefty evidence treatise) urged that a detailed set of rules be devised (along the lines of his treatise) to deal specifically with all the problems he had found in a lifetime of reading evidence cases. Charles Clark, who had been Reporter of the committee that drafted the original Federal Rules of Civil Procedure, responded by suggesting that there be only one rule—evidence should be admissible unless its prejudicial effect outweighed its probative value—and that everything else be left to the discretion of the trial judge.

When revisions are suggested for the Federal Rules, one recurrent reaction is that they are not needed. There is often much force to such arguments. Consider, for example, the observations Judge Paul W. Grimm made in a 2003 e-discovery case (although not on the

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57. See, e.g., Jaculin Aaron & Laura J. Lattman, *Another Story in Europe*, NAT'L L.J., Dec. 10, 2007, at E1 (discussing possible impact, on U.S. discovery, of stringent European data privacy laws).

58. See *Columbia Pictures, Inc. v. Bunnell*, 245 F.R.D. 443 (C.D. Cal. 2007).



subject of whether there should be Federal Rules e-discovery amendments):

Under Rules 26(b)(2) and 26(c), a court is provided abundant resources to tailor discovery requests to avoid unfair burden or expense and yet assure fair disclosure of important information. The options available are limited only by the court's own imagination and the quality and quantity of the factual information provided by the parties to be used by the court in evaluating the Rule 26(b)(2) factors.<sup>59</sup>

A plaintiff's lawyer somewhat similarly observed regarding e-discovery that "[w]ithout any rule and without any case law, the state trial court knew how to handle this."<sup>60</sup>

Any rulemakers should consider such a possibility, something like the "first do no harm" attitude of doctors. At least some suggest the amendment to the Federal Rules might not pass this test. One vendor began an assessment of the effect of the Federal Rules amendments by asking, "Have the amended federal rules brought corporate America to its knees?"<sup>61</sup> A partner in a Seattle firm was quoted as saying that "[e]verybody is a little terrified" as the effective date of the rule amendments approached.<sup>62</sup> Around the same time, an article in the *San Francisco Recorder* entitled "Easing the Pain of E-Discovery" and subtitled "New Discovery Rules Giving You a Headache?" began by saying:

I wish I could say take two aspirin and call me in the morning, but solving the technological headaches attorneys will undoubtedly grapple with under the framework of the new Federal Rules of Civil Procedure will require a much stronger dose of medicine, not to mention a dose of reality.<sup>63</sup>

In the same vein, a California lawyer reacted to the recent proposals to adopt e-discovery rules for the California state courts by

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59. Thompson v. U. S. Dep't of Hous. & Urban Dev., 219 F.R.D. 93, 98–99 (D. Md. 2003).

60. Comments by Panelists, *supra* note 51, at 73 (quoting Michael J. Ryan, Esq.).

61. Arkfeld, *supra* note 11, at 3.

62. Leigh Jones, *E-Discovery Zero Hour Approaching*, NAT'L L.J., Aug. 21, 2006, at 1.

63. Matthew D. Nelson, *Easing the Pain of E-Discovery: New Discovery Rules Giving You a Headache? Follow These Tips to Keep Costs Down and Make the Process Smooth and Efficient*, S.F. RECORDER, Aug. 23, 2006, at 5.

saying that it would have been “more prudent” to wait and see what happens as lawyers practice under the new Federal Rules.<sup>64</sup> And the malpractice fearmongers quoted earlier observe that the Federal Rules amendments “have raised the stakes.”<sup>65</sup> Although this attitude is not universal,<sup>66</sup> it may provide a caution for those considering adopting e-discovery rules in other sectors.

Frankly, I find it implausible that doing e-discovery without rules is really superior to having rules to provide guidance. Of course, for those who thought Federal Rules would really tell them “exactly what to do,” the actual rules may be disappointing. And some may have been hoping to pretend electronically stored information is not there, and limit discovery to hard-copy materials. One suggestion of this view is the observation in an article in the *California Lawyer* in February 2008 that “amendments to the Federal Rules of Civil Procedure that went into effect in 2006 essentially elevated electronic discovery from a best practice to a mandatory practice.”<sup>67</sup> But these amendments don’t mandate any form of discovery; they only instruct about how to handle e-discovery if it occurs. Maybe in the short term having such rules makes it more likely that litigants will think about seeking this material through discovery, but it is hard to believe that they would abstain from demanding it for long whether or not rules mentioned the possibility.

Another possibility is that having rules is not a problem in the abstract, but that *these* particular rules are so bad that they are worse than no rules at all. That possibility seems unpersuasive, however, in light of the widespread emulation of provisions of the Federal Rules amendments in state court rules dealing with e-discovery.

In any event, it seems worthwhile to itemize some characteristics of the Federal Rules provisions that may prove informative to other potential rulemakers:

(1) The amendments emphasize party agreement. Rather than dictate the answers to a variety of questions such as the form of production or the breadth of searches for responsive materials or the preservation of electronically stored information, the rules direct the

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64. Matthew Hirsch, *News Keeps E-Discovery on Radar in State*, S.F. RECORDER, Jan. 24, 2008, at 1, 10.

65. Kwuon & Wan, *supra* note 12, at E2.

66. See, e.g., Joseph Burton, *Rules of Evidence Should Codify Challenges of Digital Age*, S.F. DAILY J., Jan. 11, 2008, at 6 (“On the eDiscovery front, our ability to respond to the changes in practice required by this information has been eased by December 2006 amendments to the Federal Rules of Civil Procedure.”).

67. McNichol, *supra* note 22, at 37.

parties to talk about it. In this way, they can design the most suitable arrangements for their cases.

(2) The amendments also emphasize judicial supervision. Recall that the message from lawyers over a decade ago about what they needed in discovery—parental supervision. The amended rules provide a vehicle for such supervision when needed. If the parties cannot agree on any of a variety of issues, they can submit them to the judge for resolution.

(3) The amendments avoid detailed directives. To the disappointment of lawyers who wanted rules that would “tell them exactly what to do,” these rules do not. Rulemakers’ knowledge of the specifics of given cases is limited. Their ability to foresee the evolution of technology is possibly even more limited. So the application of the rules can evolve as technology evolves. Under Rule 26(b)(2)(B), for example, the determination of whether certain sources of electronically stored information are reasonably accessible could easily change as new technology makes such information accessible in new ways.

(4) The amendments emphasize the desirability of focusing on e-discovery early. There have been far too many stories of avoidable calamities already in the annals of e-discovery history. At the same time, the premium on early focus can provide those who are well prepared with an advantage. Litigants who are prepared to go to a Rule 26(f) conference with an informed and fair set of proposals will often benefit. If the other side won’t agree, they should be in a good position to persuade the judge that their proposals are reasonable. If the other side just says, “Do whatever you want to do, I don’t have to assent,” they will not likely get into trouble later for doing what they said they would do.

(5) The Federal Rules amendments place an emphasis on pragmatism. Some seem to regard discovery as inherently either good or bad. Thus, some lawyers argue that they have a “right” to do discovery of certain dimensions. Although the objective of federal discovery is unquestionably to provide legitimate access to necessary evidence, it is often not helpful to treat this objective as conferring a “right” to a certain amount. Neither does a responding party’s assertion that it has provided a certain amount of discovery inherently entitle it to refuse to provide more. With e-discovery, as with all discovery, the goal should be to bring a rule of reason to allocation of burdens in a given case.

## V. CONCLUDING OBSERVATIONS

Some may be tempted to agree with the lawyer who recently opined that “[k]eeping up with the subject of electronic discovery is a lot like following the latest developments in the lives of Britney Spears or Lindsay Lohan: every week a new story and never good news.”<sup>68</sup> I hope most have a more sanguine outlook.

For me, having spent much of the last decade focused on e-discovery, it is interesting to consider how differently we might look at e-discovery in another decade. The rate of change is likely to abate somewhat, but given how different things are now from how they were a decade ago it seems dubious to expect that things will remain the same. So I’m not going to try to make predictions. Rather, I have some observations about how things may evolve and some questions about whether the fears of the past become the reality of the future.

(1) *E-discovery may become more democratic.* Until recently, it has seemed to be a prime example of what is sometimes called “one-way discovery,” generally typified by a suit by an individual plaintiff against an organizational defendant, often a corporation. The assumption has been that only the defendant has any significant amount of information or risks problems with preservation and the like.

Computer use is no longer the preserve of the big corporation, and computer capabilities mean that large numbers of Americans have accumulated large amounts of electronically stored information. So preservation and access may begin to be headaches for parties on both sides of the “v.” At least some cases show that discovery is sought from plaintiffs as well as defendants. For example, Judge John M. Facciola recently ordered a plaintiff in a workplace harassment suit to produce images stored on his cell phone in response to a discovery demand by a defendant.<sup>69</sup>

Somewhat similarly, it seems that litigants are increasingly finding social networking sites a fruitful source of potential evidence. An article in the *National Law Journal* in October 2007 reported that “[l]awyers in civil and criminal cases are increasingly finding that social networking sites can contain treasure chests of information for their cases.”<sup>70</sup> In a recent New Jersey case, an insurer that was sued

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68. John J. Coughlin, *Learning from the E-Discovery Mistakes of Others*, NAT’L L.J., Dec. 10, 2007, at E4.

69. *Smith v. Café Asia*, 246 F.R.D. 19 (D.D.C. 2007).

70. *Vesna Jaksic, Litigation Clues Are Found on Facebook*, NAT’L L.J., Oct. 15, 2007, at 1.

for failure to pay health benefits for an alleged disability obtained an order that plaintiffs turn over postings on MySpace and Facebook, as well as mirror images of the hard drives of all the computers used by plaintiffs' families so defendant could check on statements about their health conditions.<sup>71</sup>

(2) *The enduring prominence of vendors is uncertain.* A straight-line projection of vendor income a decade from now would lead to an astronomical figure. From almost nothing in 2001 or 2002, they are expected to exceed \$3 billion this year (2008) and \$4 billion next year (2009); where this trend could lead at the end of another ten years is hard to imagine. But it is also a bit hard to imagine that law firms and corporate clients would willingly pay such amounts for the open-ended future rather than taking the work in-house somehow. There is at least some reason for caution in addressing vendors' claims. As Judge Hedges has said, "Wherever you go, you'll see a vendor who can do something better than the last vendor did and will promise you that he or she will deliver something at half cost."<sup>72</sup> At some point, something has got to give.

(3) *Access to an opposing party's computer system may become a fertile field for litigation.* Another change made in 2006 was little remarked upon at the time but might prove significant: Rule 34(a)(1) now provides not only that a party may request an opportunity to "copy" another party's documents or electronically stored information, but also to "test" or "sample" them. Previously that testing and sampling option had been explicitly provided only with regard to tangible things. Before this change, at least one court of appeals had overturned an order authorizing direct access to an opposing party's computer system.<sup>73</sup> Although the Advisory Committee's note sought to limit this possibility,<sup>74</sup> an interesting

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71. Mary Pat Gallagher, *MySpace, Facebook Pages May Aid Insurance Dispute*, S.F. RECORDER, Feb. 4, 2008, at 3.

72. Comments by Panelists, *supra* note 51, at 74 (quoting Hon. Ronald J. Hedges).

73. See *In re Ford Motor Co.*, 345 F.3d 1315, 1317 (11th Cir. 2003) (parties are not entitled to "unlimited, direct access to [the other party's] databases . . . without—the outset—a factual finding of some non-compliance with discovery rules").

74. The Advisory Committee's note cautioned as follows:

Inspection or testing of certain types of electronically stored information or of a responding party's electronic information system may raise issues of confidentiality or privacy. The addition of testing and sampling to Rule 34(a) with regard to documents and electronically stored information is not meant to create a routine right of direct access to a party's electronic information system, although such access might be justified in

question could arise about whether this new permission would often be used to justify access to an opposing party's electronic information system. This provision has begun to receive some attention,<sup>75</sup> and handling of such access deserves continued attention.

(4) *There may be a new or enlarged role for Rule 26(g).* Rule 26(g) was added in 1983, at the same time that Rule 11 was substantially revised to strengthen its provisions. At the time, it was expected (perhaps hoped) that Rule 26(g) would be just as important as Rule 11.<sup>76</sup> Needless to say, that did not happen. Amended Rule 11 mushroomed into the most prominent rule of its day, eventually being narrowed in 1993 to contain its effects. Rule 26(g) slipped from view, and had minimal effect.

It is possible that e-discovery will breathe new life into Rule 26(g). The extensive responsibilities of counsel in regard to consultations about e-discovery arrangements call for counsel to make representations to the other side, and sometimes to the court, about what can be done and when it can be done. Recently, some courts have reacted to unfounded (perhaps not entirely honest) statements as violating Rule 26(g).<sup>77</sup> Maybe it will become the "new Rule 11."

(5) *There could be new pressures on outside counsel.* The people who sign discovery papers and are subject to Rule 26(g) sanctions are usually outside counsel. Often they act in reliance on what they are told by inside counsel or by other insiders at the organizational client. In the words of one former general counsel, "There is a major distinction in America between what outside . . . and inside lawyers

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some circumstances. Courts should guard against undue intrusiveness resulting from inspecting or testing such systems.

FED. R. CIV. P. 34(a) advisory committee's note to the 2006 amendments.

75. See, e.g., Nolan M. Goldberg, *Discovery and the Reluctant Host*, NAT'L L.J., March 10, 2008, at S1 (discussing direct access to an opposing party's computer system).
76. See 8 CHARLES ALAN WRIGHT, ARTHUR R. MILLER & RICHARD L. MARCUS, FEDERAL PRACTICE & PROCEDURES § 2052, at 630 (2d ed. 1994).
77. For application of Rule 26(g) in e-discovery situations, see *Qualcomm Inc. v. Broadcom Corp.*, No. 05cv1958-B (BLM), 2008 WL 66932 (S.D. Cal. Jan. 7, 2008) (granting in part and denying in part a defendant's motion for sanctions for failure to produce certain emails during discovery), *enforcing*, 2007 WL 2900537 (S.D. Cal. Sept. 28, 2007), *vacated and remanded in part*, 2008 WL 638108 (S.D. Cal. Mar. 5, 2008); *Wingnut Films, Ltd. v. Katja Motion Pictures Corp.*, No. CV 05-1516-RSHL SHX 2007 WL 2758571 (C.D. Cal., Sept. 18, 2007) (partially granting a plaintiff's motion for sanctions due to "significant gaps" in defendant's discovery responses); *Cache La Poudre Feeds, LLC v. Land O'Lakes, Inc.*, 244 F.R.D. 614, 636-37 (D. Colo. 2007) (a defendant's "failure to comply with the requirements of Rule 26(g)" may deem "that a monetary sanction is appropriate" under the specific facts and circumstances of the case).

think and know about electronic information, and it is not all that favorable to outside lawyers.”<sup>78</sup> There certainly have been instances of sanctions on parties when erroneous assertions are made by counsel relying on what they are told by the client.<sup>79</sup> Whether such failures to communicate will produce sanctions directly on counsel under Rule 26(g), remains to be seen.

(6) *The question of whether the bad results some opponents of the Federal Rules amendments predicted have occurred or will occur deserves attention.* During the hearing process, a number of opponents to certain amendments predicted that they would prompt undesirable behavior, principally among prospective defendants. Opponents of the inaccessible information provisions of Rule 26(b)(4)(B) argued that many corporations would revise their electronic information systems to make most information inaccessible. Similarly, opponents of the sanctions limitation now in Rule 37(e) urged that it would prompt corporations to reset their systems to delete information with alacrity. To both arguments, many others responded that this would be foolish behavior for corporations, who rely on preservation of and access to electronic information to run their businesses. Because this was such a frequent theme during the Federal Rules amendment process, it would be very interesting (and quite important) to know whether there is any indication whether the Federal Rules amendments actually produced any change in behavior.

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The bottom line for me is that this has been a fascinating decade. I now look forward to the next decade to answer these questions and learn where e-discovery goes from here.

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78. Comments by Panelists, *supra* note 51, at 70 (quoting Thomas Y. Allman, Esq.).

79. See, e.g., *GFTM, Inc. v. Wal-Mart Stores, Inc.*, No. 98 CIV 7724 RPP 2000 WL 335558 (S.D.N.Y. 2000) (sanctioning defendant after its lawyer assured the court—based on what the in-house contact for outside counsel said—that certain electronically stored information was no longer available, but a later deposition of one of defendant’s IT personnel showed that it had been available at the time the representation was made but subsequently destroyed).

