
ARTICLE

DIGITAL CIVIL PROCEDURE

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This Essay, written for a festschrift celebrating the career and contributions of Stephen Burbank, grapples with the procedural implications of the steady advance of digital legal technologies, or “legal tech,” within the civil justice system. From AI-fired tools that perform e-discovery and predict case outcomes to the migration from in-person to “virtual” proceedings accelerated by the COVID-19 pandemic, few would disagree that civil litigation in 2030 will look different than it did at the start of 2020. Proceeding from this core insight, this Essay sketches two types of procedural reckonings that lie ahead as new digital technologies move from the periphery to the center of the civil justice system. One I call traffic rules—rules that determine how and when parties are moved from in-person court proceedings to new online fora. Second are information rules that govern the availability, exchange, and use of information in a fast-digitizing litigation system that will produce more and more of it, but often in unevenly distributed ways. At least initially, and for reasons Professor Burbank has long identified, the process of adapting analog versions of these traffic and information rules to a digital world is likely to remain the province of judges, particularly trial judges operating within the considerable pools of discretion American procedure affords them. But in time, digitization will place significant pressure on American ways of procedure-making. As judges decide how much to weigh party consent in moving parties online, which machine outputs are protected work product, or which cases to push to online dispute resolution (ODR) platforms and with what algorithmic tools to inform parties about their likely prospects in court, the question will be whether judges can tailor old rules to new digital contexts or whether more sweeping changes to those rules, or even entirely new governance and oversight regimes, might be warranted. In making these decisions, judges—and, in time, rulemakers and legislators—will help chart the digital future of the civil justice system.

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INTRODUCTION

"Crisis rhetoric" has long pervaded debate over American civil procedure.¹ But amidst the hue and cry, a small set of voices has broken through, rigorously but passionately excavating the deep structure of American procedure-making. That group's unrivaled leader is Steve Burbank. No scholar has done more to map the tectonics of the system—its explicit and implicit siting of discretion, its separation of powers subtleties, and its capacity (some would say *incapacity*) for empirically informed judgment about the consequences of rule choices. More importantly, no single scholarly voice offers a better springboard for thinking about what the *next* era of civil procedure might hold. And it is precisely clear-eyed thinking that is needed now, as a potent new force enters the stage: the steady advance of digital legal technologies, or "legal tech" for short, within the civil justice system. From AI-fired tools that perform e-discovery and predict case outcomes to the migration from in-person court proceedings to "virtual" ones accelerated by the COVID-19 pandemic, few would disagree that civil litigation in 2030 will look different from civil litigation at the start of 2020. Lawyers, judges, and academics should begin thinking about how the civil justice system will change—and how civil procedure and its study may need to adapt in response.

This Essay argues that the digitization of the civil justice system will be particularly fraught because of a dynamic that has come to preoccupy a new generation of procedure scholars, but one that Professor Burbank has articulated and analyzed for decades. In a procedural system committed to transsubstantive, "general" rules and run through with anxieties about substance-specific procedure, decision-making discretion that accounts for modern litigation's multitudinous forms must be injected back into the system

¹ Richard L. Marcus, *Of Babies and Bathwater: The Prospects for Procedural Progress*, 59 BROOK. L. REV. 762, 819-21 (1993).

somewhere. And that means judges, and more specifically *trial* judges, get to make it up as they go.² Whether pervasive judicial discretion is a good thing or bad thing—and opinion runs the gamut³—large swathes of American procedure have become a common law enterprise or even improvisational and “ad hoc,” fit to purpose for a particular case, with little appellate oversight at the back end.⁴

Proceeding from this core insight, this Essay sketches two types of rule reckonings that lie ahead as new digital technologies move from the periphery to the heart of the civil justice system. One I call *traffic rules*—rules that determine how and when parties are moved from in-person court proceedings to new online fora. Second are *information rules* that govern the exchange of

2 The best overall statement, by Professor Burbank, is worth citing at length:

It is not surprising that, with some notable exceptions, the trend of modern procedural law has been away from rules that make policy choices towards those that confer on trial courts a substantial amount of normative discretion. For once one has settled upon trans-substantive rules as the best way of achieving uniformity, simplicity and predictability, and once one acknowledges the impact of procedure on the substantive law, concerns about either the legitimacy of the enterprise or its efficacy push in that direction. Moreover, in a system dominated, as modern American procedure has been dominated, by equity, the avoidance of prospective policy choices holds the promise that justice may be done, with procedure its servant rather than master.

Federal Rules that avoid policy choices and that in essence chart ad hoc decision-making by trial judges are uniform and hence trans-substantive in only the most trivial sense.

Stephen B. Burbank, *Of Rules and Discretion: The Supreme Court, Federal Rules and Common Law*, 63 NOTRE DAME L. REV. 693, 715 (1988) (footnotes omitted).

³ Compare Paul D. Carrington, *Making Rules to Dispose of Manifestly Unfounded Assertions: An Exorcism of the Bogy of Non-Trans-Substantive Rules of Civil Procedure*, 137 U. PA. L. REV. 2067, 2083-85 (1989) (defending judicial discretion), with Robert G. Bone, *Who Decides? A Critical Look at Procedural Discretion*, 28 CARDOZO L. REV. 1961, 1986 (2007) (noting judicial discretion's failings, from bounded rationality and information asymmetries to “strategic interaction effects”). For a classic account of judicial discretion, see generally Maurice Rosenberg, *Judicial Discretion of the Trial Court, Viewed from Above*, 22 SYRACUSE L. REV. 635 (1971).

⁴ In addition to *Of Rules and Discretion*, see Stephen B. Burbank, *The Transformation of American Civil Procedure: The Example of Rule 11*, 137 U. PA. L. REV. 1925, 1929 (1989) [hereinafter Burbank, *The Transformation of Civil Procedure*] (“The Federal Rules may appear uniform, but many of them merely empower district judges to make ad hoc decisions.”), and Stephen B. Burbank, *The Costs of Complexity*, 85 MICH. L. REV. 1463, 1474 (1987) (reviewing RICHARD L. MARCUS & EDWARD F. SHERMAN, *COMPLEX LITIGATION: CASES AND MATERIALS ON ADVANCED CIVIL PROCEDURE* (1st ed. 1985)) (“Many of the Federal Rules authorize essentially ad hoc decisions and therefore are trans-substantive in only the most trivial sense.”). For a sampling of a newer generation of scholars navigating these waters, see Pamela K. Bookman & David L. Noll, *Ad Hoc Procedure*, 92 N.Y.U. L. REV. 767 (2017), Nora Freeman Engstrom, *The Lessons of Lone Pine*, 129 YALE L.J. 2 (2019), Shirin Sinnar, *Procedural Experimentation and National Security in the Courts*, 106 CALIF. L. REV. 991 (2018), Elizabeth G. Thornburg, *The Managerial Judge Goes to Trial*, 44 U. RICH. L. REV. 1261 (2010), and Alexandra D. Lahav, *Procedural Design*, 71 VAND. L. REV. 821 (2018).

information in a rapidly digitizing litigation system that will produce more and more of it, from e-discovery to case outcome predictions, but often in unevenly distributed ways. At least initially, and for reasons Professor Burbank has long identified, the process of adapting analog versions of these traffic and information rules to a digital world is likely to remain the province of judges, particularly trial judges, operating within the considerable pools of discretion afforded them by American procedure. But in time, digitization will place significant pressure on American ways of procedure-making. As judges decide how much to weigh party consent in moving parties online, which machine outputs are protected work product, or which cases to push to online dispute resolution (ODR) platforms and with what algorithmic tools to inform parties about their likely prospects in court to facilitate settlement, the question will be whether judges can tailor existing rules to new digital contexts or whether more sweeping changes to the rules, or even entirely new governance and oversight regimes, might be warranted. In making these decisions, judges—and, in time, rulemakers and legislators—will help chart the digital future of the civil justice system.

As we contend with these rule reckonings and usher in a new digital civil procedure, there is no better guide than Professor Burbank and no better example than his magisterial body of scholarship. To read that work is to enroll in a master class in the great vectors of American procedure: discretion, power, complexity, and transsubstantivity. Those contributions alone would be the envy of any legal scholar. But to stop there would drastically shortchange the breadth and depth of his contributions. For one can also read his work as an extended methodological exhortation. Sometimes, this took the form of old-fashioned spadework in primary sources. Faced with a towering, elegant, and altogether Ely-esque account of the Rules Enabling Act,⁵ Burbank replied with a 180-page excavation of the Act's decades long gestation and decisively showed its primary purpose was to allocate power prospectively between Court and Congress, not to protect past lawmaking or state substantive law.⁶ Roll up your sleeves, his work announced, and you get to places that raw intellect and a powerful pen alone cannot. No less important has been his exemplary efforts, without formal methods training, to embrace harder-edged empiricism. Amidst growing but largely anecdotal concern about American procedure-making, Burbank, working with Sean Farhang, popped the hood and offered a superhumanly rigorous accounting of the engine of its three main institutional actors: Advisory Committee,

⁵ John Hart Ely, *The Irrepressible Myth of Erie*, 87 HARV. L. REV. 693 (1974).

⁶ Stephen B. Burbank, *The Rules Enabling Act of 1934*, 130 U. PA. L. REV. 1015, 1025, 1106 (1982) (noting the Enabling Act's core "equable division" purpose) [hereinafter Burbank, *The Rules Enabling Act*].

Court, and Congress.⁷ Many proceduralists, of course, have called for an empirical turn in research, most famously Geoffrey Hazard back in 1963 as behavioralist social science gathered steam.⁸ But Professor Burbank has done more than make empirical calls. Leading by example, he has embodied them. As with his work on the Enabling Act's origins, sweat equity, not cheap talk, defines his scholarship.

It's at that intersection—a deep understanding of power and discretion, on the one hand; methodological innovation, on the other—that rests the future of civil procedure as new technologies sweep into the system. Digitization of litigation will press on all of the tensions in American procedure-making that Professor Burbank has charted. It will enflame separation of powers conflict. It will open up new and worrying distributive dynamics. It will defy American procedure's claims to neutrality and its bracketing of resource asymmetries at the altar of adversarialism. It will generate litigation alternatives that further erode the monopoly position of judge and court and test our commitment to public deliberative exercises and reason giving. And it will test the system's ability to make empirical judgments even as it creates oceans of new data that require new methods to unpack and interrogate. Most important of all, it will bring sustained and powerful pressure on the key questions at the heart of Professor Burbank's scholarly work: not just *what* the rules should be, but *who* gets to make them. It is hard to imagine a more fitting forum, or a better way to begin to think through these questions as litigation enters the digital era, than a celebration of Professor Burbank's inspired leadership as a lawyer and legal scholar on each of these fronts.

The remainder of this Essay proceeds as follows. Part I describes where American procedure has been, as masterfully surveyed by Professor Burbank. Part II looks to the future and describes two types of rule reckonings, across

⁷ STEPHEN B. BURBANK & SEAN FARHANG, RIGHTS AND RETRENCHMENT: THE COUNTERREVOLUTION AGAINST FEDERAL LITIGATION 19 (2017).

⁸ See GEOFFREY C. HAZARD, JR., RESEARCH IN CIVIL PROCEDURE 3 (1963) (describing the state of procedural research at the time as “groping in a fog”). Hazard, of course, is not the only example. The Pound Conference in 1906 featured such calls. See Roscoe Pound, *The Causes of Popular Dissatisfaction with the Administration of Justice*, in THE POUND CONFERENCE: PERSPECTIVES ON JUSTICE IN THE FUTURE 337 (A. Leo Levin & Russell R. Wheeler eds., 1979). And those calls have continued. See Richard A. Posner, *The Summary Jury Trial and Other Methods of Alternative Dispute Resolution: Some Cautionary Observations*, 53 U. CHI. L. REV. 366, 367 (1986) (“Lawyers, including judges and law professors, have been lazy about subjecting their hunches—which in honesty we should admit are often little better than prejudices—to systematic empirical testing.”); Marc Galanter, *Real World Torts: An Antidote to Anecdote*, 55 MD. L. REV. 1093, 1155 (1996) (“A fund of basic information about the working of our legal institutions, of a sort that we take for granted in discussions of the economy, or health care, or education, simply does not exist.”); David Freeman Engstrom, *The Twiqbal Puzzle and Empirical Study of Civil Procedure*, 65 STAN. L. REV. 1203, 1204 (2013) (calling for more rigorous research about the effect of *Twombly*'s plausibility pleading regime).

three new contexts, that lie ahead in a rapidly digitizing litigation system. Part III steps back and asks what role procedure scholars might play as those reckonings sort out, returning once more to Professor Burbank's field-shaping leadership as a guide.

I. DISCRETION, POWER, AND METHOD IN CIVIL PROCEDURE

To think about where American procedure might go in a fast-digitizing litigation system, one must first take stock of where it has been and where it currently sits. A trio of slow-moving but powerful tectonic trends—deepening judicial discretion, procedure's steady politicization, and increasing but still imperfect empirical transparency over the system's workings—have defined the last century of American procedure, and Professor Burbank has brilliantly mapped each.

A. Judicial Discretion

First and foremost are growing pools of judicial discretion. Some of this expansion has come in the clear light of day, in marquee Supreme Court decisions expanding the role of dispositive motions: first summary judgment, blessed in the Court's 1986 *Celotex* trilogy,⁹ then motions to dismiss via the advent of plausibility pleading in *Twombly* and *Iqbal*.¹⁰ Some of it has taken more diffuse and less tractable forms. Managerial judging, once bitterly debated, has become the norm in complex litigations, buoyed by amendments to Rule 16 and 26 giving judges substantial control over the pacing, sequencing, and settlement of litigation.¹¹ Deepening pools of judicial discretion have also spilled into the exotic. Nearly all of the devices that have evolved in multidistrict litigation (MDL), from plaintiff steering committees to bellwether trials to *Lone Pine* orders, are nowhere authorized by rule or statute and rarely subject to meaningful appellate review.¹²

⁹ *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 254-55 (1986); *Celotex Corp. v. Catrett*, 477 U.S. 317, 327 (1986); and *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 596-97 (1986).

¹⁰ *Bell Atlantic Corp. v. Twombly*, 550 U.S. 544, 557 (2007); *Ashcroft v. Iqbal*, 556 U.S. 662, 678-80 (2009).

¹¹ For a classic account, see Judith Resnik, *Managerial Judges*, 96 HARV. L. REV. 374 (1982). Managerial judgment has spilled over into trial too. See Thornburg, *supra* note 4, at 1261-62 (“[T]he philosophy underlying managerial judging has expanded into the trial phase”); Nora Freeman Engstrom, *The Trouble with Trial Time Limits*, 106 GEO. L.J. 933, 937 (2018) (arguing that Judith Resnik’s “managerial thesis” has expanded to include the trial period).

¹² See, e.g., Engstrom, *supra* note 4, at 44 (“A trial judge can use a *Lone Pine* order to terminate a case while insulating herself from meaningful appellate review.”); David L. Noll, *MDL as Public Administration*, 118 MICH. L. REV. 403, 422 (“Many decisions in MDL are effectively immune from appellate review.”) (2019); Abbe R. Gluck, *Unorthodox Civil Procedure: Modern Multidistrict Litigation’s Place in the Textbook Understandings of Procedure*, 165 U. PA. L. REV. 1669, 1688-89 (2017) (noting that

But the trend toward judicial discretion is no less evident beyond the elite precincts of mass torts MDLs or antitrust class actions, in the smaller-bore, workaday litigation contexts that make up the bulk of the work of American courts. A good example comes in judicial treatment of pro se litigants—a burning issue arising out the staggering fact that, in three-quarters of the millions of civil cases filed in state courts each year, at least one party is unrepresented.¹³ A growing literature catalogs the varying ways judges manage this *pro se* parade, particularly the degree to which they adopt a more active inquisitorial posture or a more passive and adversarial one, with little guidance or rules structuring that choice.¹⁴

Caveats apply. Judicial discretion's ascension has hardly been straight line. Going all the way back to 1938, the merger of equity and law constrained some of the open-ended discretion of the former.¹⁵ More recently, the rise of private procedural ordering has narrowed judicial discretion and power outside of a designated “core” of procedure said to sit beyond the power of parties to change.¹⁶ For instance, party control over forum selection has plainly increased, and judicial discretion curtailed, both inside the court system, via

MDLs are an example of “procedural exceptionalism,” as there is no Federal Rule of Civil Procedure specific to MDLs, and the MDL statute, 28 U.S.C. § 1407, concerns when MDLs are authorized but does not mention the procedures, from bellwether trials to plaintiff steering committees, that judges deploy for case management and resolution).

¹³ Paula Hannaford-Agor, Scott Graves, & Shelley Spacek Miller, *THE LANDSCAPE OF CIVIL LITIGATION IN STATE COURTS*, NAT'L CTR. FOR STATE CTS., at iv, vi, 32 (2015), https://www.ncsc.org/__data/assets/pdf_file/0020/13376/civiljusticereport-2015.pdf [<https://perma.cc/E3CZ-HRJQ>]. Pro se rates in federal court are roughly twenty-five to thirty percent. See Mark D. Gough & Emily S. Taylor Poppe, *(Un)Changing Rates of Pro Se Litigation in Federal Court*, 45 *LAW & SOC. INQ.* 567, 574-75 (2020).

¹⁴ Anna E. Carpenter, Jessica K. Steinberg, Colleen F. Shanahan & Alyx Mark, *Studying the “New” Civil Judges*, 2018 *WIS. L. REV.* 249, 252-53 (2018); Jessica K. Steinberg, *Adversary Breakdown and Judicial Role Confusion in “Small Case” Civil Justice*, 2016 *BYU L. REV.* 899, 903 (2016); Anna E. Carpenter, *Active Judging and Access to Justice*, 93 *NOTRE DAME L. REV.* 647, 651, 655-56 (2017).

¹⁵ Stephen N. Subrin, *How Equity Conquered Common Law: The Federal Rules of Procedure in Historical Perspective*, 135 *U. PA. L. REV.* 909, 975-82, 1000-03 (1987); AMALIA D. KESSLER, *INVENTING AMERICAN EXCEPTIONALISM: THE ORIGINS OF AMERICAN ADVERSARIAL LEGAL CULTURE, 1800-1877*, at 9 (2017).

¹⁶ See, e.g., Robert G. Bone, *Party Rulemaking: Making Procedural Rules Through Party Choice*, 90 *TEX. L. REV.* 1329, 1382 (2012); Jaime Dodge, *The Limits of Procedural Private Ordering*, 97 *VA. L. REV.* 723, 783-85 (2011); Michael L. Moffitt, *Customized Litigation: The Case for Making Civil Procedure Negotiable*, 75 *GEO. WASH. L. REV.* 461, 467-91 (2007); Scott Dodson, *Party Subordination in Federal Litigation*, 83 *GEO. WASH. L. REV.* 1, 37 (2014); Robert J. Rhee, *Toward Procedural Optionality: Private Ordering of Public Adjudication*, 84 *N.Y.U. L. REV.* 514, 570 (2009). Interestingly, because the overwhelming majority of state court litigants are unrepresented, privatized procedure (beyond arbitration clauses) is more a federal-level phenomenon. See Anna E. Carpenter, Jessica Steinberg, Colleen F. Shanahan & Alyx Mark, *Judges and the Deregulation of the Lawyer's Monopoly*, 80 *FORDHAM L. REV.* 1315, 1315-17 (making this point).

the presumptive validity of forum selection clauses,¹⁷ and outside of it, via the presumptive enforceability of arbitration clauses.¹⁸ Finally, key areas of procedure, particularly discovery, are perhaps best characterized as within mutual party control, with judicial discretion entering the mix only episodically, when disputes arise.¹⁹ Still, each of these areas is dwarfed by the far more numerous procedures, beginning with dispositive motions and MDLs but extending well beyond, where judges have accrued vast authority as final procedural arbiters: service of process, filing deadlines, consolidation and separation of actions, attorney misconduct, interlocutory appeals, class settlements, new trials, and the core pacing and sequencing of litigation. Few could disagree that, on net, the story of nearly a century of American procedure has been the steady accretion of judicial discretion at the expense of lawyers, litigants, juries, and rulemakers.

Why this has happened is a harder question, but two explanations stand out. Some (including Professor Burbank) would say it was cooked from the start, the inevitable result of the system's foundational transprocedural commitments: that "general" rules should be uniformly applicable across courts and cases and that those rules can only be made or changed through the Enabling Act process.²⁰ Of course, uniformly applied rules bring benefits, among them a stable backdrop against which Congress and President can legislate substance.²¹ But there are consequences. Because departures from general and uniform rules are disfavored or even prohibited and raise troubling questions of institutional power and legitimacy, the only way to account for modern litigation's many forms, and the only way around a hopeless and ineffectual formalism, is judicial discretion.

Institutional fragmentation has also contributed. In public choice terms, judges may be the least fragmented of the power players. As political

¹⁷ See *Carnival Cruise Lines, Inc. v. Shute*, 499 U.S. 585, 593-95 (1991); *Atl. Marine Constr. Co. v. U.S. Dist. Ct.*, 571 U.S. 49, 63-66 (2013). For an analysis of how *Atlantic Marine* swept away judicial discretion to consider private interest factors under § 1404(a) in cases with forum selection clauses, see Scott Dodson, *Atlantic Marine and the Future of Party Preference*, 66 HASTINGS L.J. 675, 677 (2015).

¹⁸ See *AT&T Mobility LLC v. Concepcion*, 563 U.S. 333, 344-45, 352 (2011); *Epic Sys. Corp. v. Lewis*, 138 S. Ct. 1612, 1619, 1621-22 (2018).

¹⁹ For a careful recent analysis and a review of this literature, see generally Robin J. Effron, *Ousted: The New Dynamics of Privatized Procedure and Judicial Discretion*, 98 B.U. L. REV. 127 (2018). For a classic statement of American adversarialism, see John H. Langbein, *The German Advantage in Civil Procedure*, 52 U. CHI. L. REV. 823, 830 (1985) that compares the German procedural system to an Anglo-American procedure built on "partisan presentation of evidence to a passive and ignorant trier."

²⁰ See Stephen B. Burbank, *Pleading the Dilemmas of "General Rules"*, 2009 WIS. L. REV. 535, 536 (2009) [Burbank, "General Rules"].

²¹ David Marcus, *Trans-Substantivity and the Processes of American Law*, 2013 BYU L. REV. 1191, 1211, 1235 (2013).

polarization has plunged Congress into dysfunction and gridlock, and as the legal profession has become ever more specialized and balkanized,²² only judges, with their relative homogeneity, political insulation, and streamlined decision processes and simple majority rules, can put up something like a united front.²³

Importantly, judges and judicial discretion win out even when other stakeholders rise up. In the great procedure battles of the 1980s and 1990s, Congress was wrested from its slumber on procedural matters when lawyers, enraged by the Advisory Committee's "cavalier" and unempirical "tinkerings"²⁴ with Rule 11 and Rule 26, learned to pull legislative "fire alarms."²⁵ In turn, legislators learned that procedure is power.²⁶ The twin result has been increasing legislative pushback in the rulemaking process²⁷ and legislative incursions, from the silo-specific Prison Litigation Reform Act

²² As Burbank showed, the diversification and specialization not only shrank the community of interest among lawyers, but also ensured that the views of bench and bar on key procedural matters would diverge as well. Stephen B. Burbank, *Procedure, Politics and Power: The Role of Congress*, 79 NOTRE DAME L. REV. 1677, 1720 (2004) [hereinafter Burbank, *Procedure, Politics and Power*] ("[T]he legal profession became less homogeneous, more competitive, and more specialized, and the communities of interest among lawyers and between lawyers and judges shrank."); Stephen B. Burbank, *Ignorance and Procedural Law Reform: A Call for a Moratorium*, 59 BROOK. L. REV. 841, 853 (1993) [hereinafter Burbank, *Ignorance and Procedural Law Reform*] ("[I]t may no longer make sense to talk about the legal profession in connection with procedural reform."); Stephen B. Burbank, *Procedure and Power*, 46 J. LEGAL EDUC. 513, 514 (1996) [hereinafter Burbank, *Procedure and Power*] (noting legal profession at time of 1938 rules was "small and homogeneous, or at least was a recognizable profession").

²³ This is not to say that courts are entirely insulated. See, e.g., BARRY FRIEDMAN, *THE WILL OF THE PEOPLE: HOW PUBLIC OPINION HAS INFLUENCED THE SUPREME COURT AND SHAPED THE MEANING OF THE CONSTITUTION* 367-68 (1st ed. 2009).

²⁴ Stephen B. Burbank & Linda J. Silberman, *Civil Procedure Reform in Comparative Context: The United States of America*, 45 AM. J. COMP. L. 675, 680 (1997).

²⁵ Burbank, *Procedure, Politics and Power*, *supra* note 22, at 1704 ("[L]awyers, members of an increasingly diverse and fragmented (through specialization and competition) profession, came to believe that the rulemakers (who had come to be dominated by judges) were not listening, and they turned to Congress for relief from proposals to which they objected."); *id.* at 1722 ("The risk of a rupture between federal judges and the bar was realized when, in response to a perceived crisis of expense and delay, judges pursued rulemaking strategies that either empowered them at the expense of lawyers and their clients (sanctions and active case management) or that simply disempowered lawyers (discovery reform).").

²⁶ In particular, Congress sought to reassert their authority and move the system toward one that more closely approximates delegated legislative power than "inherent" judicial power. See *id.* at 1705 ("[L]obbying by lawyers and others led members of Congress to perceive that some issues of court practice and procedure either could be used to generate political support among certain interest groups or in any event might require attention in order to preserve such support."); *id.* at 1679-89.

²⁷ Witness, for instance, Congress's pushback against the Federal Rules of Evidence or proposed procedural amendments in 1983 and 1993. See Stephen B. Burbank, *Implementing Procedural Change: Who, How, Why, and When?*, 49 ALA. L. REV. 221, 228 (1997) [hereinafter, Burbank, *Implementing Procedural Change*] (recounting growing "power struggles" around FRE, Rule 11, and CJRA).

and Private Securities Litigation Reform to the more transsubstantive Civil Justice Reform Act and Class Action Fairness Act.²⁸ To be sure, congressional meddling has at times cabined judicial discretion. But judges have, on net, benefitted from separation of powers struggles. Conflict between Congress and rulemakers led to the opening up of the rulemaking process in 1988 and its assimilation to administrative law's notice-and-comment model.²⁹ While some say this change pressed the rulemakers into narrower and more technocratic poses, it may have also had the larger effect of delegitimizing rulemaking by rendering it little different, at least viewed from the outside, from the pull and haul of "normal" politics.³⁰

B. Procedure and Power

Underwriting each of these explanations for growing pools of judicial discretion is the second great tectonic trend of the last century of American procedure, and another one that has benefited from Professor Burbank's masterful analysis: a fundamental shift in the civil justice landscape, rooted in the growing American reliance on courts and litigation to make and implement social policies.

Once again, there are high and low precincts. The usual high precinct version of the story, anchored by the groundbreaking scholarly work of Robert Kagan, Sean Farhang, and Professor Burbank, is that the American political system has increasingly turned to private enforcement to compensate individuals for wrongs and enforce key social norms.³¹ The American reliance on litigation, on this account, is not a runaway result of lawyer avarice or a "victim society," as some would have it.³² It is a deliberate legislative

²⁸ See Burbank, *Procedure, Politics and Power*, *supra* note 22, at 1693-1703.

²⁹ See 28 U.S.C. §§ 2072-74.

³⁰ See Burbank, *Ignorance and Procedural Law Reform*, *supra* note 22, at 849-50 (1993) (arguing that, far from helping Congress to disengage on procedural matters, rulemaking's new guise may have encouraged legislators "to second-guess the product of that process or to preempt it"); see also Burbank, *Procedure, Politics and Power*, *supra* note 22, at 1724 ("[T]he changes in the rulemaking process in the 1980s that were designed to open it up to more and more diverse points of view, make it more transparent, and diminish the need for congressional involvement, may in fact have facilitated a process of redundancy wherein participants treat rulemaking that is at all controversial as merely the first act.").

³¹ See ROBERT A. KAGAN, *ADVERSARIAL LEGALISM: THE AMERICAN WAY OF LAW* 39 (2d ed. 2019) (explaining the American penchant for court- and litigation-centered regulatory approaches). See generally SEAN FARHANG, *THE LITIGATION STATE: PUBLIC REGULATION AND PRIVATE LAWSUITS IN THE U.S.* (2010) (explaining the post-war American turn to litigation and its consequences).

³² See, e.g., WALTER OLSEN, *THE EXCUSE FACTORY: HOW EMPLOYMENT LAW IS PARALYZING THE AMERICAN WORKPLACE* (1997); KRISTIN BUMILLER, *THE CIVIL RIGHTS SOCIETY: THE SOCIAL CONSTRUCTION OF VICTIMS* (1992); LAWRENCE M. FRIEDMAN, *TOTAL JUSTICE* (1985).

regulatory choice. Whatever the relative contribution of these various potential causes, note the effect: the deepening role of litigation as a vehicle of American social policymaking has steadily sharpened anxieties about substance-specific rulemaking by continually raising the specter that judicially chosen procedures are altering legislative bargains. Battles over Rule 11 and Rule 26 might have gotten lawyers' backs up and helped Congress to see political power and advantage in procedure. Beneath it all, however, is a slower burn of politicization of procedure born of the American turn to private attorneys general in key—hotly contested—regulatory battlegrounds.

The lower-precinct version of the story often gets lost in accounts of the postwar litigation turn, but it is no less important. As economic inequality has widened and poverty deepened, a different kind of social policymaking has been judicialized. American courts have become de facto social welfare bureaucracies—perennially flooded by a tsunami of consumer debt, eviction, and family law cases, but without the governance tools or staffs that agencies sitting in the other branches of government can tap to manage them.³³

Importantly, this lower-precinct trend is connected to the higher-precinct one by more than just the judicialization of social policy. Indeed, judicialization of the high sort has helped create the conditions that afflict the low sort. In a system committed to general rules, the elaboration of a rich set of procedures to handle “complex” litigation in high-stakes policy areas has steadily priced many litigants out of the market for legal services elsewhere in the system. PeopleLaw—the segment of the legal services industry that represents individuals, as compared to BigLaw’s entity-focused practice—has steadily shrunk.³⁴ While access-to-justice advocates clamor for simplified procedures to lower the cost of legal representation and allow litigants to go it alone, the system’s transprocedural impulse and the growing complexity of big-ticket litigation has pushed the system in the other direction, yielding a costly menu of Cadillac procedures that apply even in cases where a Ford might do.³⁵

There remain, of course, important debates about the causes of the American resort to courts and litigation compared to other advanced

³³ For a powerful statement, see Colleen F. Shanahan & Anna E. Carpenter, *Simplified Courts Can't Solve Inequality*, 148 DAEDULUS 128, 128, 129-30 (2019). See also Colleen F. Shanahan, Alyx Mark, Jessica K. Steinberg & Anna E. Carpenter, *COVID, Crisis, and Courts*, 99 TEX. L. REV. ONLINE 10, 11 (2020) (“Even before the pandemic, as other branches of government failed to address inequality, state civil courts became the government actor of last resort for the tens of millions of American each year who suffer the consequences of these failures.”).

³⁴ Bill Henderson, *The Decline of the PeopleLaw Sector (037)*, LEGAL EVOLUTION (Nov. 19, 2017), <https://www.legalevolution.org/2017/11/decline-peoplelaw-sector-037> [<https://perma.cc/JV7D-K2KN>].

³⁵ See Burbank, “General Rules”, *supra* note 20, at 563.

democracies.³⁶ Likewise there are hard questions about the shape and success of the more recent anti-litigation “counter-revolution” that has sought to reverse and retrench the American turn to litigation.³⁷ For Professor Burbank, retrenchment efforts exhibit a baleful mix of abdication and fecklessness: credulous rulemakers who have bought into an empirically shaky narrative about “cost and delay” in litigation; feckless legislators who have caved to powerful incentives to submerge unpopular policies in litigation-squelching statutory procedures while refusing to provide alternative policy vehicles, be it social insurance or agency enforcement;³⁸ and a cynical Supreme Court that uses decisional law to amend rules (though disclaims doing so) knowing that procedural arcana will fly below the public radar.³⁹ While some might disagree with one or more of these Burbank-ian broadsides, a larger point seems undeniable: litigation’s centrality in American policymaking means that procedure will, for the foreseeable future, remain a lightning rod—one of the foremost battlegrounds in America politics, even if many of the key battles play out behind the scenes.

C. Empirical Method

A third and final tectonic change that is central to any high-level accounting of the past and present of American procedure—and yet another place where Professor Burbank has done invaluable, field-shaping work—is the growing store of empirical knowledge about the system’s workings and effects. As with the other tectonic moves in American procedure, this trend has been jagged rather than straight. Indeed, perhaps more so than the others, it is as much a perennial challenge as a chartable trend. Still, the steady refinement of empirical methods, the flowering of “empirical legal studies,” and the growing digitization and datafication of courts and litigation have generated ever-greater, though far from perfect, transparency over the workings of the system and the consequences of procedural choices.

Yet procedure’s empirical turn has been a double-edged sword. Knowing forum shopping’s effect on case outcomes,⁴⁰ or Rule 11’s actual deployment

³⁶ See David Freeman Engstrom & David Hausman, *Rights, Redistribution, and the Rise of the “Litigation State”: The Case of Disability Discrimination*, 46 LAW & SOC. INQ. 788, 788-91 (2021).

³⁷ See generally BURBANK & FARHANG, *supra* note 7 (2017); Stephen B. Burbank, *Reconsidering Judicial Independence: Forty-Five Years in the Trenches and in the Tower*, 168 U. PA. L. REV. ONLINE 18, 29-34 (2019) [hereinafter Burbank, *Reconsidering Judicial Independence*].

³⁸ See Burbank, “General Rules,” *supra* note 20, at 560-64.

³⁹ BURBANK & FARHANG, *supra* note 7, at 22-23; see also Burbank, *Reconsidering Judicial Independence*, *supra* note 37, at 31-32.

⁴⁰ See William H.J. Hubbard, *An Empirical Study of the Effect of Shady Grove v. Allstate on Forum Shopping in the New York Courts*, 10 J.L. ECON. & POL’Y 151, 156-57 (2013) (reviewing empirical studies of forum shopping).

rate,⁴¹ or that *Twombly* has affected certain cases more than others⁴² makes for better rules. Empirical validation of rule choices can also protect rulemakers from political incursions by allowing them to maintain the mantle of expertise and objectivity and avoid the perception, just noted, that their work is merely an extension of “normal” politics.⁴³

Empiricism, however, brings as much peril as promise. Most obviously, a growing store of empirical knowledge creates problems when rulemakers ignore it.⁴⁴ Litigation empirics are also just plain hard. Data is spotty.⁴⁵ Pervasive selection dynamics mean that much of what passes for empiricism may not be worth the paper it is written on.⁴⁶ The stickiness of legal culture further complicates rigorous inferences even with water-tight research designs. The problem, as Professor Burbank once noted in the context of the CJRA, is the lengthy time-horizons of quality research, since a procedure’s long-run effects cannot be captured until bench and bar have grown comfortable with the new way of doing things.⁴⁷ Finally, litigation empiricism is hard in the American system because the commitment to general rules disfavors “bottom up” solutions and so forecloses robust local experimentation—perhaps the best source of variation on which to base rigorous causal inferences about the impacts of rule choices.⁴⁸

⁴¹ SAUL M. KASSIN, AN EMPIRICAL STUDY OF RULE 11 SANCTIONS, at ix-xi (1985); Carl Tobias, *Civil Rights Plaintiffs and The Proposed Revision of Rule 11*, 77 IOWA L. REV. 1775, 1776-77 (1992).

⁴² See Jonah B. Gelbach, *Locking the Doors to Discovery? Assessing the Effects of Twombly and Iqbal on Access to Discovery*, 121 YALE L.J. 2270, 2273-78 (2012); Jonah B. Gelbach, *Material Facts in the Debate over Twombly and Iqbal*, 68 STAN. L. REV. 369, 376 (2016). See generally Engstrom, *supra* note 8 (summarizing and critiquing the quantitative research scholars have completed on the effects of *Twombly* and *Iqbal*).

⁴³ Marc Galanter, Bryant Garth, Deborah Hensler & Frances Kahn Zemans, *How to Improve Civil Justice Policy*, 77 JUDICATURE 185, 185, 230 (1994).

⁴⁴ The Advisory Committee “studied indifference to empirical questions” in ramming through changes to Rule 11 and Rule 26 did more than wake Congress from its 50-year slumber on procedure. Burbank, *Ignorance and Procedural Law Reform*, *supra* note 22, at 841. The Advisory Committee also lost the policymaking high ground at a key moment, when the opening up of rulemaking to public view was already subtly eroding its legitimacy. Burbank, *The Transformation of American Civil Procedure*, *supra* note 4, at 1950.

⁴⁵ See Nora Freeman Engstrom, *The Diminished Trial*, 86 FORDHAM L. REV. 2131, 2139-40 (2018) (reviewing data issues); Herbert M. Kritzer, *The Trials and Tribulations of Counting “Trials”*, 62 DEPAUL L. REV. 415, 436 (2013).

⁴⁶ See Engstrom, *supra* note 8, at 1206; Gelbach, *Material Facts in the Debate over Twombly and Iqbal*, *supra* note 42, at 376.

⁴⁷ Burbank, *Implementing Procedural Change*, *supra* note 27, at 241.

⁴⁸ The best example is the CJRA, which committed to local, “bottom up” solutions rather than national, “top down” solutions as the best way to make progress on perceived problems of expense and delay, requiring each district to develop a plan. However, this created considerable tension between national and local rulemaking, pitting the promise of new and creative solutions against the perceived hit to uniformity and predictability. See Burbank & Silberman, *supra* note 24, at 680 (1997). Worse, the CJRA adopted a “bottom up” approach at the same time that the federal judiciary, with Congress’s encouragement, was doing just the opposite: disciplining and narrowing local-level

There are, however, two further ways in which procedure's empirical turn has impacted American procedure-making. The first has come from Professor Burbank himself, in his impressive recent scholarly work, noted previously, laying bare the inner workings of federal-level rulemaking. That analysis showed that the rulemaker ranks have become increasingly heavy on Republican-nominated judges and defense lawyers and that the valence of the Advisory Committee's work—the amendments it proposes and pursues—has followed accordingly.⁴⁹ Time will tell the impact of this unmasking of a process whose legitimacy was already taking hits, but it is unlikely to be good.

The second effect of procedure's empirical turn runs deeper and exposes a final peril in a system committed to general, substance-agnostic rules. However incomplete, increased empirical transparency over litigation brings with it an ability to gauge a rule's substantive effects, pressing the entire rulemaking enterprise into a perpetual, low-grade conflict with the system's transprocedural commitments and, more pointedly, the Enabling Act's antimodification mandate. As Professor Burbank's seminal excavation of the Enabling Act showed, its drafters imagined a line between Congress and Court that placed off-limits to court supervisory rulemaking anything that has a "predictable and identifiable effect" on the rights of person or property.⁵⁰ Note, however, the catch-22 in an era of increasing empirical transparency: an allocation standard keyed to the predictability of a rule's impact would limit court supervisory rulemaking to zones of irrelevance or speculation, where the effects of rule changes are either negligible or empirically muddy. Once we know that the 1993 version of Rule 11 kneecaps particular types of plaintiffs, or that *Twombly* has a more robust effect on civil rights cases, both Rule 11 and *Twombly* become, in a sense, substance-specific. The myth of transsubstantivity and the legitimacy of American procedure-making, in other words, rests at least in part on the system's continuing opacity.

* * *

Plenty will disagree with some of these particulars. Some will say it paints too morose a portrait of the state of American procedure-making. Sure,

disuniformity. Burbank, *Implementing Procedural Change*, *supra* note 27, at 230. Burbank's warning about the "temptation to make [difficult] choices in local rules" reflected a more general unease with local experimentation that continues to haunt the system. Burbank, *Ignorance and Procedural Law Reform*, *supra* note 22, at 854. For an overview of the CJRA and its short-lived localist impulse, see Lauren Robel, *Fractured Procedure: The Civil Justice Reform Act of 1990*, 46 STAN. L. REV. 1447, 1450-54 (1994).

⁴⁹ See Burbank & Farhang, *supra* note 7, at 19-20.

⁵⁰ See Burbank, *The Rules Enabling Act*, *supra* note 6, at 1114; see also *Hanna v. Plumer*, 380 U.S. 460, 476 (1965) (Harlan, J., concurring) (defining substantive as affecting "primary conduct").

rulemakers have ignored empirical evidence. Sure, legislators have buried social policy choices in statutory procedure without providing substitute entitlements or enforcement capacity. And sure, courts have not always owned up to their use of decisional law to amend procedural rules outside of rulemaking. But all of this, one could argue, falls well short of abdication or fecklessness. Rather, it is the usual mix of principle and institutional self-interest that characterizes any complex policymaking system.

Others, however, will say it is not morose enough. From the vantage of the 1990s, one could imagine Court and Congress, or Advisory Committee and congressional committees, carving out a healthy, interbranch cooperation on civil justice matters—a new “treaty” on procedure-making of the sort Professor Burbank and others once called for.⁵¹ From the vantage of 2021, however, appeals to “cooperation,” “genuine dialogue,” and “restraint in assertions about power, prerogatives, and competence”⁵² ring hollow and even naïve—a patrician’s call for civility as revolutionaries build barricades. Far from a shared vision, nowadays it is all institutional fracture, with rules pushed to their “hardball” maximum, the norms that sanded down their sharp edges be damned, and a growing political polarization and nihilism that preclude serious lawmaking and, worse for courts, have yielded a dysfunctional and perhaps unsalvageable judicial selection process.⁵³

But one need not be an apologist or alarmist to see the kernel of truth in the basic story just told. American law’s transprocedural impulse, the narrowing and delegitimation of court supervisory rulemaking, a bitterly polarized and dysfunctional politics, and substantial shifts in the shape of the civil justice system and the legal services industry that serves it have yielded ever deeper pools of judicial discretion in areas where justice is meted out in some of its most significant forms, from sprawling MDLs and class actions

⁵¹ See Burbank, *Procedure and Power*, *supra* note 22, at 517 (calling for Rules Enabling Act of 1998 in which the judiciary would “resume its primacy in civil justice reform but contemplates that the branches will cooperate, with the judiciary taking the lead, in the formulation and promulgation of reforms that would necessarily and obviously affect substantive rights”; the Act would also make “a national commitment to civil justice research” and “tighten[] national control on local procedural experimentation”); Burbank & Silberman, *supra* note 24, at 703-04 (1997) (imagining a world in which “unilateral action [gives] way to pursuit of a shared vision, one that is informed by the fruits of empirical inquiry or an appropriate surrogate, disciplined by awareness of that which is politically feasible and crafted with technical expertise”). For other explorations, see Galanter et al., *supra* note 43, and Charles Gardner Geyh, *Paradise Lost, Paradigm Found: Redefining the Judiciary’s Imperiled Role in Congress*, 71 N.Y.U. L. REV. 1165, 1234-40 (1996) (calling for an Interbranch Commission on Law Reform and the Judiciary).

⁵² Burbank, *Implementing Procedural Change*, *supra* note 27, at 222.

⁵³ See Richard L. Hasen, *Polarization and the Judiciary*, 22 ANN. REV. POL. SCI. 261, 262 (2019) (arguing that increased polarization affects both judicial selection and litigation outcomes). See generally Joseph Fishkin & David E. Pozen, *Asymmetric Constitutional Hardball*, 118 COLUM. L. REV. 915 (2018).

in federal courts to consumer debt collections and evictions at the state level. Add to these dynamics a tighter empirical bead on the system's workings and the impact of rule choices, and you get a procedure-making process that is at best embattled and at worst perpetually on the verge of crisis.

This, in turn, should be worrying because of the impending arrival of a new tectonic force that seems likely to be every bit as important as the ones that Professor Burbank has done so much to elucidate. A wave of digital legal technologies is on the way and, in the years to come, will progressively move to the center of the civil justice system. Tech is not something that Professor Burbank much considered in his prodigious body of scholarship. But his masterful mappings of the tectonics of a century of American procedure has helped lay the groundwork for thinking about how civil procedure will modulate legal tech's continued advance and how judges, lawyers, and, in particular, civil procedure scholars can help navigate that process.

II. THE LEGAL TECH CHALLENGE: RULE RECKONINGS

Ours is a technological age, and courts and litigation are no exception. Indeed, lawyers, judges, academics, and entrepreneurs have begun to sketch a portrait of a legal system that will be increasingly permeated by new digital tools of various shapes and varieties—digitized litigation for a digitized era.

“Legal tech,” as some call it, is growing fast, though these tools defy quick description.⁵⁴ Various legal tech applications—e-discovery tools for managing documents, back-office tools that automate billing, and web-based marketing tools—have existed for decades. But legal tech's most potent current forms are unified by their reliance upon predictive analytics, particularly machine learning, and it is here that we can expect the greatest leaps forward as software increasingly performs advanced legal cognitions that supplement and, at times, supplant lawyers' work.⁵⁵ Lawyers will increasingly rely on legal tech to review documents and make privilege calls, predict case outcomes, and generate pleadings and papers. The unrepresented, too, will benefit from the diffusion of technologies, from Q/A systems offering legal advice to document assembly software, to help them go it alone in court or resolve their

⁵⁴ The very notion of “technology” in law is hard to corral. Litigation finance is a technology, though not a digital one, that is quietly remaking the civil justice system. So are alternative legal service providers. And digital technologies in law come in different flavors. Some are proximate to, but not “of,” the legal system. A good example is the ways social media could re-engineer aggregate litigation by making possible a new, “participatory” class action founded upon voice, not exit. See Elizabeth J. Cabraser & Samuel Issacharoff, *The Participatory Class Action*, 92 N.Y.U. L. REV. 846, 854, 856-57 (2017). Others are more directly involved in the provision of legal services or the processing of cases. That is my focus in what follows.

⁵⁵ See DANIEL SUSSKIND, *A WORLD WITHOUT WORK: TECHNOLOGY, AUTOMATION, AND HOW WE SHOULD RESPOND* 77-97 (2020) (describing “task encroachment” in the lawyering context).

disputes without engaging courts at all.⁵⁶ But legal tech also includes technologies that are, comparatively speaking, analog. The COVID-19 pandemic induced our normally hidebound courts to move a nontrivial portion of the system online. Even as courthouse reopen their doors in a post-COVID world, a significant amount of that digital migration will stick.

The precise contours of this newly digitized litigation system are as yet unclear. A lively debate has begun to sketch long-run concerns, many of them explored via thought experiments around “robojudges” and “robo lawyers,”⁵⁷ or even an eventual state of “legal singularity,” when machines can perfectly predict the outcome of every case before it is filed.⁵⁸ Along the way, potent new legal tech tools, we are told, will change law itself by collapsing standards into rules and steadily shifting the jurisprudential foundation of the system away from “equitable justice” and toward “codified justice,” crowding out judicial discretion and values such as mercy or extenuation.⁵⁹ In its most bracing forms, speculation about the legal system’s digital future holds that courthouses will cease to exist as physical places as adjudication moves from courtrooms and law offices to server farms.⁶⁰

But if we lower our gaze to a more useful and tractable middle distance, and if we take healthy account of Professor Burbank’s masterful mappings of the past century of American procedure, we can see a set of more concrete rule reckonings ahead, each a site of conflict where there will be substantial work for judges, rulemakers, lawyers, and procedure scholars to do. Some of these rule reckonings will be relatively straightforward. For instance, in the near term, we’ll confront key questions about the technical specifications for online systems and rules prescribing how, precisely, online court proceedings will be made available to the public in order to cash out the “open court” provisions that pepper American constitutions, statutes, and rules.⁶¹

⁵⁶ See generally REBECCA L. SANDEFUR, AM. BAR FOUND., *LEGAL TECH FOR NON-LAWYERS: REPORT OF THE SURVEY OF U.S. LEGAL TECHNOLOGIES* (2019).

⁵⁷ See, e.g., Eugene Volokh, *Chief Justice Robots*, 68 DUKE L.J. 1135, 1137-42 (2019); Milan Markovic, *Rise of the Robot Lawyers?*, 61 ARIZ. L. REV. 325, 349-50 (2019).

⁵⁸ See Benjamin Alarie, *The Path of the Law: Towards Legal Singularity*, 66 U. TORONTO L.J. 443, 445-46 (2016).

⁵⁹ For a jurisprudential overview, see Richard M. Re & Alicia Solow-Niederman, *Developing Artificially Intelligent Justice*, 22 STAN. TECH. L. REV. 242 (2019). See also Anthony J. Casey & Anthony Niblett, *The Death of Rules and Standards*, 92 IND. L.J. 1401, 1403 (2017) (finding that technology removes the trade-off between rules and standards).

⁶⁰ See MICHAEL A. LIVERMORE & DANIEL N. ROCKMORE, *Introduction: From Analogue to Digital Legal Scholarship*, in *LAW AS DATA: COMPUTATION, TEXT, & THE FUTURE OF LEGAL ANALYSIS*, at xiv (Michael A. Livermore & Daniel N. Rockmore eds., 2019). The less grandiose version is Susskind’s notion that adjudication will become a “service” rather than a “place.” See RICHARD SUSSKIND, *ONLINE COURTS AND THE FUTURE OF JUSTICE* 95 (2019).

⁶¹ See, e.g., FED. R. CIV. P. 43(a) (“At trial, the witnesses’ testimony must be taken in open court unless a federal statute, the Federal Rules of Evidence, these rules, or other rules adopted by the

A pair of more challenging rule reckonings, however, will come in the deep pools of judicial discretion created by our equity based system of procedure. First are *traffic rules* that will govern entry into and exit from new virtual fora—for instance, rules determining whether a case is heard in person or online, and whether the judge, the parties, or neither get to make that decision. Second are *information rules* that will govern the availability, exchange, and use of the new troves of information generated by a rapidly digitizing legal system. Examples include the proportionality and work product rules that will govern the use of potent new software that performs legal tasks, from e-discovery to outcome prediction, or rules governing whether and how court-linked online dispute resolution (ODR) platforms should arm disputants with data-based predictions about their prospects in court to nudge them toward settlement.

Critical choices over this mix of traffic and information rules will inaugurate a new digital era of American civil procedure, pressing on each of the tectonic trends that have defined American procedure in recent decades and placing particular pressure on a system of procedure-making built around judicial discretion. This Part offers a taste of each.

A. *Traffic Rules: “Virtual” Justice and the Migration Online*

Start with a sweeping technological change that was already in motion when the COVID-19 pandemic hit but exploded into view as infections spread and courthouses shuttered: the migration of formal court proceedings from in-person to online fora. The scale and scope of that process has been stunning: since the pandemic began in March 2020, federal and state courts alike have hosted *millions* of hours of proceedings online.⁶² Hundreds of thousands of judges, lawyers, and court staff have now paid the “switching costs” that everyone else, in workplaces and schools the world over, have also paid: downloading Zoom, buying laptops and webcams, and learning how to artfully conceal wearing gym shorts to work. The “Zooming” of litigation, as

Supreme Court provide otherwise.”); U.S. Const. amend. VI (“In all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him . . .”). Numerous state constitutions have “open court” clauses. *See, e.g.*, Jonathan M. Hoffman, *By the Course of the Law: The Origins of the Open Courts Clause of State Constitutions*, 74 OR. L. REV. 1279, 1279 (1995) (canvassing the provisions). For a useful overview of the “open courts” doctrine, see Michael Pressman & Michael Shammass, *Memorandum: The Permissibility & Constitutionality of Jury Trial by Videoconference*, CIV. JURY PROJECT (May 4, 2020), <https://civiljuryproject.law.nyu.edu/memorandum-the-permissibility-constitutionality-of-jury-trial-by-videoconference> [<https://perma.cc/J9NC-SZB4>].

⁶² *See, e.g.*, Erika Rickard & Qudsiya Naqui, *Coronavirus Accelerates State Court Modernization Efforts*, PEW (June 18, 2020), <https://www.pewtrusts.org/en/research-and-analysis/articles/2020/06/18/coronavirus-accelerates-state-court-modernization-efforts> [<https://perma.cc/7SUS-7SYZ>] (noting that the Michigan courts alone hosted 200,000 hours of Zoom hearings during a single two-month span of the pandemic).

Chief Judge Lee Rosenthal and coauthors recently put it, has worked a radical change in the day-to-day operation of the courts—and, critically, a good amount of it is likely to stick even after the pandemic recedes.⁶³

Some of the procedural questions raised by virtual court proceedings are strikingly basic. What degree of public access is necessary to satisfy “open court” requirements? Does a full-time YouTube channel, as many courts created during the pandemic, satisfy legal requirements,⁶⁴ or does the digital divide necessitate other forms of publicly funded digital access, whether courthouse—or even community based kiosks? Likewise, when courts stream proceedings, what are the minimum hardware requirements? And what are best practices in terms of camera angles and lighting, to ensure meaningful access and faithful translation from the in-person to the online versions? Chief judges, court administrators, rulemakers, and legislators are already hard at work crafting these rules, guidelines, and practices.⁶⁵

Far harder will be *traffic rules* that determine *which* cases move online and which ones remain in person—and, perhaps more importantly, *who gets to decide*. Part of what will make these traffic rules difficult is that it is unclear what, precisely, is gained and lost online. On one hand, remote proceedings can increase access to justice by lowering the cost of legal representation and shrinking the ranks of those with justice needs who cannot afford competent counsel. Lawyers bill for the time it takes to travel to and from courthouses—and to wait one’s turn once there. Transaction costs are especially high in the parade of smaller-scale proceedings—status conferences, arguments on motions trained on a specific piece of discovery or claim, and pretrial hearings—that make up civil litigation.⁶⁶ The amount of representation available in any market-based legal system is endogenous to its cost. If the cost of legal services declines, more people can afford those services.

Less clear is what gets lost—the cost–benefit ledger’s other side—in the virtual migration. A commonly voiced concern is that online proceedings will

⁶³ Scott Dodson, Hon. Lee H. Rosenthal & Christopher L. Dodson, *The Zooming of Federal Civil Litigation*, 104 JUDICATURE 13, 13-17, 19 (2020).

⁶⁴ U.S. CTS., *Federal Courts Participate in Audio Livestream Pilot* (Dec. 15, 2020), https://www.uscourts.gov/news/2020/12/15/federal-courts-participate-audio-livestream-pilot?utm_campaign=usc-news&utm_medium=email&utm_source=govdelivery [https://perma.cc/ZT4J-CRRT]; TEX. OFF. OF CT. ADMIN., *How to Create a YouTube Channel*, <https://www.txcourts.gov/media/1448819/how-to-youtube-channel-9120.pdf> [https://perma.cc/CWW3-AN4Q].

⁶⁵ See, e.g., NAT’L CTR FOR STATE CTS, REMOTE HEARINGS AND ACCESS TO JUSTICE: DURING COVID-19 AND BEYOND, https://www.ncsc.org/_data/assets/pdf_file/0018/40365/RRT-Technology-ATJ-Remote-Hearings-Guide.pdf [https://perma.cc/HDQ3-TPWP]; NAT’L CTR. FOR STATE CTS., GUIDING PRINCIPLES FOR POST-PANDEMIC COURT TECHNOLOGY: A PANDEMIC RESOURCE FROM CCJ/COSCA (2020), https://www.ncsc.org/_data/assets/pdf_file/0014/42332/Guiding-Principles-for-Court-Technology.pdf [https://perma.cc/KV35-DT4V].

⁶⁶ The same is true of depositions taken in distant cities or towns.

compromise crucial judgments about witness credibility. But the net effects are not obvious. After all, there's both more and less on screen. Facial tics are enhanced, bodily tics invisible.⁶⁷ More fundamentally, social science suggests we should not be overly concerned about the impairment of a judge or jury's capacity for deception detection during witness testimony. Our ability to gauge truthfulness was already perilously close to a coin flip, leaving little room for further erosion.⁶⁸ Nor is there an obvious hit to truth telling itself. Conventionally understood, "open court" provisions and confrontation rights curtail perjury by lending a sense of conscience to the proceedings and keeping "triers keenly alive," as the Supreme Court has put it, "to a sense of their responsibility and to the importance of their functions."⁶⁹ But online, livestreamed proceedings might be *more* publicly available, not less, increasing the shaming power of watchful eyes.

The graver concern is likely to be distributive, and it will come not just at trial or other proceedings featuring live testimony, but also in the ceaseless stream of smaller-scale hearings and motions practice that do not. Two types of concerns predominate: efficacy and empathy. Efficacy concerns are perhaps easiest to see. The most pointed version comes where only one side can afford to appear in person, and so one side physically stands before judge or jury and the other side is piped in. Yet even in a litigation system where both sides of the "v." are remote, one might worry about the effects of a digital divide.⁷⁰ If litigation's haves enjoy access to stable Wi-Fi or high-production-value digital demonstratives and its have-nots don't, then the move online could

⁶⁷ See, e.g., Molly Treadway Johnson & Elizabeth C. Wiggins, *Videoconferencing in Criminal Proceedings: Legal and Empirical Issues and Directions for Research*, 28 LAW & POL'Y 211, 215-16 (2006).

⁶⁸ See Charles F. Bond Jr. & Bella M. DePaulo, *Accuracy of Deception Judgements*, 10 PERSONALITY & SOC. PSYCH. REV. 214, 214 (2006) (concluding, after an extensive meta-analysis, that "people achieve an average of 54% correct lie-truth judgments, correctly classifying 47% of lies as deceptive and 61% of truths as nondeceptive"). See generally Renee Danser, D. James Greiner, Elizabeth Guo & Erik Koltun, *Remote Testimonial Fact-Finding*, in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE (David Freeman Engstrom ed., forthcoming 2022) (on file with author) (reviewing the large body of research on detection deception, including the relative importance of verbal and paraverbal cues, the relative competence of individuals and groups, and the possibility that deception attribution might be biased against certain groups). For a recent exploration in the popular press, see Jessica Seigel & Knowable Mag., *You've Been Lied to About Lying*, THE ATLANTIC (Mar. 27, 2021), <https://www.theatlantic.com/science/archive/2021/03/how-to-spot-a-liar/618425> [<https://perma.cc/G7D6-JG4L>].

⁶⁹ *Waller v. Georgia*, 467 U.S. 39, 46 (1984) (internal citations omitted).

⁷⁰ The digital divide is both "first-order" (that is, access to digital devices or broadband) and "second-order" (that is, proficiency in using available technologies). See Victor D. Quintanilla, Kurt Hugenberg, Margaret Hagan & Amy Gonzales, *Digital Inequalities and Access to Justice*, in LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE, *supra* note 68. That said, the digital divide may be decreasing, including among racial and ethnic minorities. COUNCIL OF ECON. ADVISERS, EXEC. OFF. OF THE PRESIDENT, MAPPING THE DIGITAL DIVIDE 1, 3 (2015), https://obamawhitehouse.archives.gov/sites/default/files/wh_digital_divide_issue_brief.pdf [<https://perma.cc/4KA8-A9ZL>].

exacerbate the distributive effects—already pronounced in the analog, in-person context—within the legal system.⁷¹

Empathy effects are subtler and not easily disentangled from efficacy. A small but flawed empirical literature—mostly observational studies from the first time the system made a substantial move online in the 2000s—finds worrying evidence that parties participating virtually do systematically worse than counterparts participating in person across a range of contexts, from bail hearings to immigration proceedings.⁷² While the precise mechanism remains unclear, it seems likely that disparate outcomes occur because virtual participants are less relatable on a two-dimensional screen than their flesh-and-blood equivalents.⁷³ Relatability might not matter where two human parties appear virtually. Empathy (and also efficacy, for that matter) are relative—positional goods, economists would say. But moving litigation online could matter very much where one party is a person and the other a disembodied corporation, systematically skewing outcomes in favor of the latter.

Plainly more empirical work needs to be done on these and other questions.⁷⁴ Above all, our last round of empirical study came at a very different time, with high-latency, low-resolution systems that look nothing

⁷¹ See Marc Galanter, *Why the “Haves” Come Out Ahead: Speculations on the Limits of Legal Change*, 9 LAW & SOC’Y REV. 95, 125 fig.3, 149 (1974); Albert Yoon, *The Importance of Litigant Wealth*, 59 DEPAUL L. REV. 649, 652 (2010).

⁷² See Shari Seidman Diamond, Locke E. Bowman, Manyee Wong & Matthew M. Patton, *Efficiency and Cost: The Impact of Videoconferenced Hearings on Bail Decisions*, 100 J. CRIM. L. & CRIMINOLOGY 869-70 (2010); Frank M. Walsh & Edward M. Walsh, *Effective Processing or Assembly-Line Justice? The Use of Teleconferencing in Asylum Removal Hearings*, 22 GEO. IMMIGR. L.J., 259, 259-71 (2008); Dane Thorley & Joshua Mitts, *Trial by Skype: A Causality-Oriented Replication Exploring the Use of Remote Video Adjudication in Immigration Removal Proceedings*, 59 INT’L REV. L. & ECON. 82, 82-83 (2019). That said, no randomized field studies study the effect of video conferencing, as against face-to-face communication, on case outcomes. See Danser et al., *supra* note 68, manuscript at 8.

⁷³ This, in any event, is the theorized mechanism of studies performed in other contexts, including telemedicine and job interviews. See, e.g., Greg J. Sears, Haiyan Zhang, Willi H. Wiesner, Rick D. Hackett & Yufei Yuan, *A Comparative Assessment of Videoconference and Face-to-Face Employment Interviews*, 51 MGMT. DECISION 1733, 1742 (2013) (noting lower ratings for likability, though not competence, in a job interview setting). That said, randomized field studies in both of these non-legal contexts find that videoconferencing either has no effect or can even benefit remote participants. See Carlos De Las Cuevas, M. Teresa Arredondo, M. Fernanda Cabrera, Hubert Sulzenbacher & Ulrich Meise, *Randomized Clinical Trial of Telepsychiatry Through Videoconference Versus Face-to-Face Conventional Psychiatric Treatment*, 12 TELEMEDICINE & E-HEALTH, 341, 347 (2006) (finding no effect on medical decisions); Derek S. Chapman & Patricia M. Rowe, *The Impact of Videoconference Technology, Interview Structure, and Interviewer Gender on Interviewer Evaluations in the Employment Interview: A Field Experiment*, 74 J. OCCUPATIONAL & ORGANIZATIONAL PSYCH., 279, 291 (2001) (finding that job interviewees were rated higher than their in-person counterparts).

⁷⁴ For an initial effort to understand some of the lessons from the pandemic-based migration online, see Elizabeth Thornburg, *Observing Online Courts: Lessons from the Pandemic*, 54 FAM. L.Q. 181 (2021).

like today's Zoom, let alone the immersive telepresence systems that provide a rich sense of colocation and are fast becoming the norm in corporate America. As discussed further below, the migration online will present a new frontier for empirically minded procedural research and new troves of data to power it.⁷⁵

For now, however, it is not hard to see the critically important implications for the system's adversarial architecture and the procedural rules that structure it. First, the migration online brings complex trade-offs from an access-to-justice perspective. An all-online system might increase litigant access by bringing legal representation, or an ability to appear pro se, within the realm of possibility for low- or middle-income litigants who have been priced out of the market for legal services. Digitization can thus dent the access to justice concerns that have arisen as American social policy has been steadily judicialized and as litigation's growing complexity has sunk PeopleLaw.⁷⁶ But efficacy or empathy effects could skew case outcomes once there. Armed with better technology, litigation's haves might welcome the online migration as one more way to come out ahead. We might open the doors of the courthouse wider only to relegate some to its digital basement. And new and easier online access to small claims can be regressive reforms that do far more to benefit the middle class.⁷⁷ Importantly, these various tradeoffs may play out differently across different substantive litigation contexts. The net effect of the online migration may prove different in eviction cases than in consumer debt or prisoner cases, and different still in antitrust or other "complex" litigation areas.

If these trade-offs are complex and variable, then the question of who decides makes management of those trade-offs even more so. In particular, what mix of judicial discretion, party consent, and no-flex rules makes sense as a way to capture the efficiencies and access-to-justice benefits of moving online while blunting distributive impacts? The first approach, and the one embodied in existing federal rules, is to leave the move online to judicial discretion. Rule 43 gives judges full discretion to "permit" remote testimony "[f]or good cause in compelling circumstances and with appropriate

⁷⁵ See *infra* Part III.

⁷⁶ See *supra* note 34 and accompanying text.

⁷⁷ Omri Ben-Shahar, *The Paradox of Access Justice, and Its Application to Mandatory Arbitration*, 83 UNIV. CHI. L. REV. 1755, 1755 (2016) ("Paradoxically, access justice often benefits various elites while paid for directly by taxpayers and indirectly by weaker groups." The result is a "regressive cross-subsidy" "because groups that are *not* the intended targets of the intervention deploy access and its benefits disproportionately."); Anthony Niblett & Albert H. Yoon, *Unintended Consequences: The Regressive Effects of Increased Access to Courts*, 14 J. EMPIRICAL LEGAL STUD. 5, 27-28 (2017) (concluding, based on empirical evidence, that raising jurisdictional limits in a small claims court disproportionately increased better-heeled plaintiffs).

safeguards.”⁷⁸ A second possible approach comes by analogy to forum selection—one of the few places in American procedure where judicial discretion has been curtailed and something closer to ironclad party control prevails. On this model, judicial discretion would yield to party consent by making party agreements to move online presumptively valid.⁷⁹ A third approach is formalist per se rules, whether issued from rulemakers or legislators, automatically moving certain types of cases—evictions, consumer debt cases, prisoner cases—to a remote forum or making it a strong default. One could even opt for a system that mixes and matches these approaches. Rule 30(b)(4), as an example, sprinkles authority among parties and judge in stating that “parties may stipulate—or the court may on motion order—that a deposition be taken by telephone or other remote means.”⁸⁰ As William Hubbard and Ronen Avraham point out, party consent and judicial discretion exist along an often murky continuum.⁸¹

Each of these approaches has its virtues and vices, and it is not hard to see some of the more salient tradeoffs. If remote proceedings are left up to party consent, we might worry that consent could become a litigation tactic—a bargaining chip that litigation’s haves could use to delay adjudication or perhaps even extract concessions on discovery or other procedural rights from have-nots.⁸² More concretely, a pro se litigant or a party with pro bono or “low-bono” counsel might bargain away valuable discovery or other procedural or substantive rights in order to secure a lower cost, virtual forum, or that repeat players, unmoved by available concessions, might instead

⁷⁸ FED. R. CIV. P. 43.

⁷⁹ Note that the adoption of this approach could emerge even under the current rules. The typical way to determine whether procedural defaults can be altered is by asking whether a procedure is sufficiently central to the mission of the courts and then denoting some procedures as falling within a “core,” where party-stipulated deviations are not permitted, and others as falling outside the “core,” where party-stipulated deviations are presumptively enforced save evidence of grossly unfair bargaining leverage or other pathology. *See generally* Ronen Avraham & William H.J. Hubbard, *The Spectrum of Procedural Flexibility*, 87 U. CHI. L. REV. 883 (2020). If online proceedings were found to fall outside the core, then perhaps party consent would trump even Rule 43’s seeming vesting of discretion in trial judges.

⁸⁰ FED. R. CIV. P. 34(b)(4). *See also* FED. R. CIV. P. 29 (noting that the parties may stipulate, in addition to the taking of depositions, that “other procedures governing or limiting discovery be modified”).

⁸¹ Hubbard & Avraham, *supra* note 79.

⁸² This may be one reason why some courts have made clear that trial judges have discretion to compel a virtual move. *See, e.g.*, Tex. Sup. Ct., Thirty-Sixth Emergency Order Regarding the COVID-19 State of Disaster, Misc. Docket No. 21-9026 (2021), <https://www.txcourts.gov/media/1451833/219026.pdf> [<https://perma.cc/L6RQ-GXRL>] (“Subject only to constitutional limitations, all courts in Texas may in any case, civil or criminal—and must to avoid risk to court staff, parties, attorneys, jurors, and the public—without a participant’s consent . . . allow or require anyone involved in any hearing, deposition, or other proceeding of any kind—including but not limited to a party, attorney, witness, court reporter, grand juror, or petit juror—to participate remotely, such as by teleconferencing, videoconferencing, or other means. . . .”).

compel in-person proceedings to maximize the costs incurred by the one shotters on the other side. Judicial discretion to parse these situations could mitigate these concerns, but it could just as easily exacerbate them.

Here we can begin to glimpse the full extent of the procedural challenges as large chunks of the system move (or stay) online. The trade-offs between efficiency, access, and equity are hard, and the empirical knowledge that can guide the choice of rule architecture, or the exercise of judicial discretion within a given architecture, is thin to nonexistent. The future of litigation will turn on how well our rules of procedure, and our ways of procedure-making, rise to meet these twin challenges.

That process is likely to look different at the federal and state levels, but there is reason for concern in both contexts. At the state level, a wider set of options is available, including substance-specific rules and procedural tracking, because of a weaker, more defeasible commitment to a “one size fits all” approach.⁸³ This is important, for some of the most obvious implementations—separate rules for specific types of cases or proceedings where distributive concerns are thought especially acute—will require a relaxation of transsubstantivity. But there are risks in such an approach. Any proposed rule that is specific to, say, consumer debt cases will draw the attention, and perhaps the ire, of a billion-dollar credit card industry. There is a reason why, in the social welfare context, universalist programs like social security are more politically robust and generous than residualist ones like TANF or SNAP (food stamps).⁸⁴ The question will be whether a rulemaking process can produce rules that take account of the full set of procedural values at stake, or whether it will instead yield a system that allows litigation’s haves to gain judgments, wage garnishments, and eviction orders with ever more ruthless efficiency.⁸⁵

At the federal level, available options will, for better or worse, be more limited. For starters, there are fewer discrete classes of high-volume cases that might lend themselves to substance-specific rules.⁸⁶ More fundamentally, categorical, substance-specific, and no-flex rules will be a harder sell at the federal level because of the system’s transprocedural commitments and its

⁸³ Stephen N. Subrin, *The Limitations of Transsubstantive Procedure: An Essay on Adjusting the “One Size Fits All” Assumption*, 87 DENV. U. L. REV. 377, 394 nn.74–75 (2010).

⁸⁴ PAUL PIERSON, *DISMANTLING THE WELFARE STATE? REAGAN, THATCHER, AND THE POLITICS OF RETRENCHMENT* 100–03 (1994).

⁸⁵ Procedural debates tend to privilege results over process values. See Jane Donoghue, *The Rise of Digital Justice: Courtroom Technology, Public Participation and Access to Justice*, 80 MOD. L. REV. 995, 1003 (2017) (“[L]egal processes are frequently evaluated on the basis of whether they are effective in achieving ‘good results’, rather than their capacity to serve process values.”).

⁸⁶ The two types that come to mind are prisoner and social security cases.

allergy to procedural tracking.⁸⁷ If recent decades are any guide, federal level procedure is instead likely to double down on judicial control, trusting in judges to manage complex trade-offs on a case-by-case basis and deepening the pools of discretion that have defined the past century of American procedure. This approach may come out well. It may not. The paucity of empirical knowledge to guide judges is worrying, particularly because the near-term decisions judges make will set a trajectory for online proceedings that may prove hard to undo, even if it becomes clear that more thoroughgoing changes to the system's procedural architecture, or a set of substance-specific rules, are best.

B. Information Rules: From TAR Wars to Legal Tech's Great Beyond

A second way to glimpse the rule reckonings that lie ahead in a digitized system is to focus on legal tech in some of its most advanced forms: the suite of lawyer driven tech tools that made their first and most significant inroads in e-discovery but are quickly moving to higher-order legal cognitions, from legal analytics to outcome prediction. If the migration online will require new *traffic* rules, the new digital lawyer's toolkit will require adaptation of existing *information* rules that shape who gets what information, when, and in what form.

As I have written elsewhere, the e-discovery variants of legal tech—often referred to as “technology-assisted review” (TAR) or “predictive coding”—are already spilling into deep pools of judicial discretion and pressing on the American legal system's adversarial architecture.⁸⁸ For starters, TAR holds the potential to reshape the system by fundamentally shifting the distribution of litigation costs among litigants. TAR requires human lawyers to “label” a subset of a corpus of documents for relevance or privilege that can be used to train a machine learning system to flag the rest. Implemented well—and that is a key caveat—TAR performs better than purely human, eyes-on review, and at a fraction of the cost.⁸⁹

⁸⁷ See, e.g., Stephen B. Burbank & Stephen N. Subrin, *Litigation and Democracy: Restoring a Realistic Prospect of Trial*, 46 HARV. C.R.-C.L. L. REV. 399, 410 (2011) (discussing failed proposals to impose non-negotiable limits on interrogatories and depositions in the discovery context).

⁸⁸ See David Freeman Engstrom & Jonah B. Gelbach, *Legal Tech, Civil Procedure, and the Future of Adversarialism*, 169 U. PA. L. REV. 1001, 1071-86 (2021).

⁸⁹ For the two most frequently cited studies, see Maura R. Grossman & Gordon V. Cormack, *Technology-Assisted Review in E-Discovery Can Be More Effective and More Efficient Than Exhaustive Manual Review*, 17 RICH. J.L. & TECH. 1 (2011), and Herbert L. Roitblat, Anne Kershaw & Patrick Oot, *Document Categorization in Legal Electronic Discovery: Computer Classification vs. Manual Review*, 61 J. AM. SOC'Y FOR INFO. SCI. & TECH. 70 (2010). These two studies were the principal authority in *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 190 (S.D.N.Y. 2012), a leading case vouching for TAR's efficiencies. Others, however, are more skeptical about TAR's current capabilities. See Robert Keeling, Rishi Chhatwal, Peter Gronvall & Nathaniel Huber-Fliflet, *Humans Against the Machines: Reaffirming the Superiority of Human Attorneys in Legal Document Review and Examining the Limitations*

TAR's potential efficiency gains are profoundly important, for rulemaking in recent decades has been pre-occupied—some would say obsessed—with litigation costs. Rulemakers have tried to mitigate cost concerns with proportionality rules that require a judge to decide whether a discovery request is proportional to case needs. But proportionality judgments are tricky because TAR can yield gains in both efficiency *and* accuracy. For a requesting party, more efficient review justifies more expansive searches, including a wider net of custodians and fewer keyword searches to cull documents prior to automated review. For a producing party, however, accuracy gains mean a more generous bounty of documents.⁹⁰ Put these dynamics together and TAR has the potential to shift the “unit cost” of discovery—that is, the average cost of each produced document—up, down, or not at all. And it is judges, drawing from an implicit “set point” in terms of tolerable cost, who will decide which it is. If trial judges exercise their considerable discretion in ways that harness TAR's efficiencies and reduce discovery costs, rather than merely greenlighting more expansive discovery, the effect on civil litigation, from the availability of counsel to settlement patterns, could be profound.⁹¹ Even *Twombly*'s plausibility pleading standard, founded on concern about litigation cost asymmetries and plaintiffs' ability to externalize those costs onto defendants, might see its theoretical foundation erode.⁹²

If those were the only changes TAR put on the table, its propagation throughout the civil justice system might generate only limited controversy. But TAR is also spurring motions practice with deeper implications for the system's adversarial architecture via disputes over a party's request for the other side's “seed set” or other technical details about its search and review methodology in order to gauge the comprehensiveness of a production. And these “seed set” disputes—an emerging “TAR wars”—are increasingly being argued via the work product rule.

of Algorithmic Approaches to Discovery, 26 RICH. J. L. & TECH. 1, 9-11 (2020) (deconstructing the TREC evaluation process and showing the limited nature of its findings regarding TAR's advantages over human review).

⁹⁰ See Seth Katsuya Endo, *Discovery Hydraulics*, 52 U.C. DAVIS. L. REV. 1317, 1354-55 (2019) (providing a framework for considering proportionality issues in discovery); see also Ralph C. Losey, *Predictive Coding and the Proportionality Doctrine: A Marriage Made in Big Data*, 26 REGENT U. L. REV. 7, 15-16 (2013) (arguing that predictive coding is the answer to the proportionality doctrine); Judge Andrew Jay Peck, *Foreword*, 26 REGENT U. L. REV. 1, 3 (2014) (suggesting that technology will resolve the discovery problems it created).

⁹¹ See Linda Sandstrom Simard, *Seeking Proportional Discovery: The Beginning of the End of Procedural Uniformity in Civil Rules*, 71 VAND. L. REV. 1919, 1948 (2018) (“Freeing states from the binds of uniformity may, over time, encourage even broader procedural innovations.”).

⁹² See Engstrom & Gelbach, *supra* note 88, at 1059.

That rule, of course, now resides in Rule 26 and state-level equivalents but was born in 1947 in *Hickman v. Taylor*.⁹³ In an iconic concurrence, Justice Jackson wrote: “A common law trial is and always should be an adversary proceeding. Discovery was hardly intended to enable a learned profession to perform its functions either without wits or on wits borrowed from the adversary.”⁹⁴

Part of what the work product rule does is create a zone of privacy where a lawyer can prepare her case without interference.⁹⁵ But a deeper purpose is to create the conditions necessary for a well-functioning adversarial system.⁹⁶ Good lawyering, the thinking goes, will beget good lawyering if parties are willing to pay for it. But parties will pay for it only if we prevent one side from free-riding on the work of the other—in Justice Jackson’s terms, if we prevent parties from borrowing the other side’s wits. But note as well the deep distributive concern this brackets: some litigants can afford better lawyers than others. Such is the *Hickman* bargain: we tolerate inequalities in the name of good lawyering.

Is a seed set work product? Some courts say no, some yes. Courts in the “yes” camp say the seed set reveals attorney mental impressions the same way as a list of “hot docs” used to prepare a deposition witness, as in the Third Circuit’s *Sporck* case.⁹⁷ That means near-absolute protection as “opinion” work product. But strong or even absolute protection is worrying if you care about a level litigation playing field. TAR systems, like any machine learning system, are “socio-technical assemblages,” not turnkey engines.⁹⁸ An important implication is that TAR is manipulable by humans in the tool’s construction and tuning, and this manipulation can run the gamut from outright abuse (*e.g.*, fudging document labels or rigging the selection or finetuning of models), to a more benign but still respondent friendly calibration of the system to favor precision (the proportion of unresponsive

⁹³ 329 U.S. 495, 511-12 (1947) (establishing the work product doctrine).

⁹⁴ *Id.* at 516.

⁹⁵ *Id.* at 512 (“[T]he general policy against invading the privacy of an attorney’s course of preparation is so well recognized and so essential to an orderly working of our system of legal procedure”); see also Ronald J. Allen, Mark F. Grady, Daniel D. Polsby & Michael S. Yashko, *A Positive Theory of the Attorney-Client Privilege and the Work Product Doctrine*, 19 J. LEGAL STUD. 359, 362 (1990) (describing how the work product doctrine “provides the level of confidentiality needed to induce the attorney to perform the optimal amount of legal investigation”); Jeff A. Anderson, Gena E. Cadieux, George E. Hays, Michael B. Hingerty & Richard J. Kaplan, *The Work Product Doctrine*, 68 CORNELL L. REV. 760, 785 (1983) (describing how *Hickman* “preserv[ed] a zone of privacy within which attorneys could work”).

⁹⁶ Engstrom & Gelbach, *supra* note 88, at 1078 (“The work product doctrine creates the conditions necessary for a well-functioning adversarial system by safeguarding returns on, and thus investment in, legal talent.”).

⁹⁷ *Sporck v. Peil*, 759 F.2d 312, 318 (3d Cir. 1985).

⁹⁸ Mike Ananny & Kate Crawford, *Seeing Without Knowing: Limitations of the Transparency Ideal and Its Application to Algorithmic Accountability*, 20 NEW MEDIA & SOC’Y 973, 985 (2016).

documents allowed into a production) over recall (the proportion of responsive documents identified).⁹⁹ If litigation's haves need not show their work to the other side, then they can shade discovery to their advantage and use their better technology and technologists (if the other side can afford technologists at all) to make sure it sticks.¹⁰⁰

TAR is already attracting a rich law review literature exploring these issues, including bracing proposals that would have courts adopt top-down, rule-like protocols for collaborative use of TAR or even task the requesting party, not the responding one, with formulating and conducting searches and reviews.¹⁰¹ Each of these would shift, or even reset, the system's traditional commitment of discovery means and methods to parties with only sporadic judicial involvement to referee disputes.¹⁰² The pay-offs could be significant. As with other areas of algorithmic accountability, we could, despite pervasive concern about AI's "black box" opacity, end up with a discovery system that is *more* transparent than at present about its costs and less prone to abuse.¹⁰³ But compelled cooperation in discovery could just as easily erode litigant autonomy and the system's foundational commitment to adversarialism in

⁹⁹ Compare Maura R. Grossman & Gordon V. Cormack, *Continuous Active Learning for TAR*, PRACTICAL L.J., April–May 2016, at 32, 37 (2016) (describing how machine-learning algorithms can minimize discovery disputes between parties), with Neel Guha, Peter Henderson & Diego A. Zambrano, *How to Sabotage Legal Tech* (May 7, 2021) (unpublished manuscript) (on file with author) (cataloging the ways that TAR is gameable, particularly by litigants with greater technical capacity and sophistication).

¹⁰⁰ See Seth Katsuya Endo, *Technological Opacity & Procedural Injustice*, 59 B.C. L. REV. 821, 863 (2018) (detailing how the "black-box" quality of predictive coding makes it harder for less sophisticated litigants to challenge the predictive coding process).

¹⁰¹ See Bruce H. Kobayashi, *Law's Information Revolution as Procedural Reform: Predictive Search as a Solution to the In Terrorem Effect of Externalized Discovery Costs*, 2014 U. ILL. L. REV. 1473, 1477 (2014) ("[T]he idea that allocating costs to the requesting party can be used to usefully limit the scope and cost of discovery by improving litigant incentives is gaining acceptance."). For an example of a court-imposed protocol that has drawn criticism by providing for party-opponent validation, see *In re Broiler Chicken Antitrust Litigation*, No. 1:16-cv-08637, 2018 WL 1146371, at *2-4 (N.D. Ill. Jan. 3, 2018) (setting forth a detailed protocol for search methodology and validation using TAR). See also Christine Payne & Michelle Six, *A Proposed Technology-Assisted Framework*, LAW360 (Apr. 27, 2020, 5:22 PM), <https://www.law360.com/articles/1267032/a-proposed-technology-assisted-review-framework> [<https://perma.cc/ZY36-WCQN>] (arguing that TAR has become "weaponized" via court-imposed protocols that impose a higher standard and greater obligations on producing parties than the analog discovery system does).

¹⁰² For a defense of the current "self-executing" system of discovery in which parties choose their own means absent clear evidence of abuse, see Paul Weiner & Denise Backhouse, "Transparency," "Discovery-on-Discovery" Type Disclosures, and Party-Opponent Validation in eDiscovery, 70 LABOR L.J. 212, 213 (2019) (describing how the Federal Rules do not require parties to be transparent in discovery).

¹⁰³ For an example of the argument in the antidiscrimination context, see Jon Kleinberg, Jens Ludwig, Sendhil Mullainathan & Cass R. Sunstein, *Discrimination in the Age of Algorithms*, 10 J. LEGAL ANALYSIS 113, 114 (2018) (describing how regulated algorithm designs will make proving discrimination claims easier not harder).

favor of something more judicially supervised and technologist empowering.¹⁰⁴ A collaborative approach could redirect the professional standards and ethical obligations of lawyers away from clients and toward a more diffuse fealty to the court and public. In *Hickman* terms, the market for good lawyering could erode, however subtly.

The potential for a convulsive shift in American procedure is already great, but TAR may also just be the canary in the coalmine. Reports reveal that Walmart and other large companies facing recurring types of litigation—including slip-and-falls and employment disputes—are actively working with large law firms and technology companies to develop a new and potent legal tech tools.¹⁰⁵ These tools remain proprietary, but they appear to do two things and confer two types of litigation advantages. First, they perform outcome predictions, including the likely result of a case and the likely expense incurred in litigating it given key case characteristics, including the identity of plaintiffs' counsel. The tools thus bring a heightened ability to do what repeat players and litigation's haves do to win out over one shotters and litigation's have-nots: settle out the cases with strong claims, litigate the winners, and play the long game by playing for rules at the appellate level.¹⁰⁶ Second, the new tools can reportedly generate pleadings and papers—an answer, or an initial set of discovery requests—thus reducing litigation costs.

Much has been made of tools of this sort, and some commentators paint a rosy portrait. Continued proliferation of such tools might level the litigation playing field by allowing smaller law firms to do battle with larger, corporate-facing, BigLaw ones.¹⁰⁷ PeopleLaw, as just noted, might rebound. But it is just as easy to paint a darker portrait. Indeed, over the near to medium term, a convergence of factors may ensure that only litigation's haves will be able to develop potent legal tech applications and gain their advantages. After all, large entities like Walmart may uniquely have the resources and capital access necessary to build technical capacity.¹⁰⁸ More importantly, it is large repeat players who enjoy privileged access to data, particularly the holy grail of case

¹⁰⁴ See Dana A. Remus, *The Uncertain Promise of Predictive Coding*, 99 IOWA L. REV. 1691, 1711 (2014) (discussing how judges and lawyers are “ceding control” of litigation procedure to experts who prioritize “technological use and development above all else”).

¹⁰⁵ See Engstrom & Gelbach, *supra* note 88, at 1039-40 n.142.

¹⁰⁶ See Galanter, *supra* note 71, at 125 (describing how favorable rules, favorable priorities, and a party's ability to structure transactions and “play for rules” as “repeat players” collectively contribute to “haves” coming out ahead in litigation).

¹⁰⁷ See, e.g., Albert H. Yoon, *The Post-Modern Lawyer: Technology and the Democratization of Legal Representation*, 66 U. TORONTO L.J. 456, 457 (2016) (“[T]hese technologies increase accessibility to legal services in a way that can benefit lawyer and litigants alike.”).

¹⁰⁸ Engstrom & Gelbach, *supra* note 88, at 1021-30 (cataloging the technical limits of NLP and its requirements of significant technical capacity and significant manual lawyer inputs).

outcome data that is otherwise unavailable within a system where secret settlements predominate.¹⁰⁹

If legal tech continues its advance and the haves have it and the have-nots don't, then it is not hard to see that litigation will increasingly feature requests for production of the other side's digital outputs. That might be a plaintiff seeking access to Walmart's outcome prediction. It might be litigants, or even a judge, demanding a party's case-outcome predictions to see through its motion to transfer venue on purely "convenience" grounds. And it might involve a request for the outputs of a contract-analysis tool as a kind of parol evidence about the drafter's intent. Whatever the context, judges will increasingly be asked whether machine outputs enjoy protection—that is, whether borrowed *bits* should be treated the same as borrowed *wits*, even where one side's sharper wits reflect nothing more than its ability to pay for the best software or its privileged access to data.

The rule reckonings for legal tech tools, particularly beyond TAR, are hard to glimpse and necessarily speculative because they will depend on the arc of technological development. But consider two broad observations that may help structure future thinking.

First, the application of analog work product rules to new digital litigation tools is not obvious. As just one example, advanced legal tech tools that perform outcome predictions tend to be created far upstream, by teams of lawyers and technologists long before any particular case arises; use of the tool in a particular case, by contrast, may entail little more than a keystroke. Machine outputs may thus qualify only for qualified protection under Rule 26(b)(3) as "fact" work product, not the near-absolute protection afforded "opinion" work product.¹¹⁰ Upstream development also implicates Rule 26(b)'s "in anticipation of litigation" requirement: many outcome-prediction tools will have been created and finetuned neither during nor in anticipation of any particular litigation; rather, they are created for *all* litigations.¹¹¹ Past case law, of course, says that case predictions, at least as to a specific case rather than a cluster of cases, enjoy protection.¹¹² But those decisions came in

¹⁰⁹ The result is that most civil-side cases exit dockets with an uninformative voluntary dismissal under Rule 41 or state equivalents.

¹¹⁰ See FED. R. CIV. P. 26(b)(3)(A)–(B) (prescribing qualified protection for some materials, commonly referred to as "fact" work product, absent a showing of need and hardship, but near-absolute protection for materials, commonly referred to as "opinion" work product, that reflect attorney "mental impressions").

¹¹¹ *Id.* (protecting from disclosure "documents and tangible things that are prepared in anticipation of litigation or for trial").

¹¹² A good example is *Simon v. G.D. Searle & Co.*, 816 F.2d 397, 403 (8th Cir. 1987), which held that a defendant's calculation of its aggregate damages exposure across cases was not protected work product, but individual case calculations were.

an analog world, with human lawyers, not machine learning models, poring over case files to arrive at liability estimates.

Second, thinking through these options raises significant questions about whether procedure is the right vehicle to manage new digital information flows in the first place. As with the traffic rules that will usher American litigation online, the efficiency and distributive trade-offs are complex, and reliable empiricism on the effects of one or another approach surprisingly thin. Worse, compelled sharing of digital outputs in the name of blunting legal tech's distributive impacts will make those tools less valuable, reducing party incentives to use them or the legal tech industry to produce them. After all, the value of tools that provide information derives from their exclusivity—that is, one side has them but the other does not.¹¹³ A procedural regime that aims to level the playing field might end up chilling legal tech's production and use in ways that make all worse off.

But if not trial judges operating within wide pools of discretion in our equity-based system of procedure, then who? The current state of rulemaking, and of our politics, makes it hard to imagine rulemakers or legislators becoming involved, at least over the near to medium term. To that extent, it seems likely that judges will be the front-line regulators of legal tech's uptake at a critical moment in its life. Still, the best long-term solutions may well lie elsewhere, in the legislative creation and funding of “public option” legal tech or, in the TAR context, the construction of courthouse e-discovery arms to facilitate active judicial management of the discovery process.¹¹⁴ These possibilities may seem far-fetched and futuristic—only a notch down from pervasive predictions of robojudges and robolawyers. But if digitally driven outcome disparities become too great and expose the dirty underbelly of the *Hickman* bargain, momentum could steadily build, and it is not impossible to imagine either or both approaches winning out. The result would be a seismic change in American justice—a tech-based rethinking of some of our adversarial system's procedural cornerstones.

C. *Traffic + Information Rules: From ODR 1.0 to ODR 2.0*

A third set of rule reckonings comes with the online dispute resolution (ODR) platforms—asynchronous online fora where parties can attempt to bargain their way to settlement—that increasingly dot the civil justice

¹¹³ See Engstrom & Gelbach, *supra* note 88, at 1089 (“[L]egal tools derive much of their value from their exclusivity—i.e. the fact that one litigant has them and the other does not . . .”).

¹¹⁴ It could also mean a legislative refashioning of liability standards to account for a newly unlevel playing field.

landscape, both in the United States and elsewhere.¹¹⁵ ODR's current technological frontier combines the two technologies already discussed, coupling an online forum with a range of algorithmic techniques, from bidding systems to outcome-prediction engines, that provide key information to disputants as they negotiate their way to settlement. New ODR platforms thus sit out at more of a medium-term horizon than the simple online migration of court proceedings or lawyer-driven legal tech tools. In time, however, ODR may prove the most significant of current legal tech applications because it is likely to be the first place that courts *themselves*, rather than lawyers and litigants, deploy legal tech tools that perform higher-order legal cognitions.¹¹⁶ Indeed, ODR will be the bridge, if there is to be one, to fully automated adjudication. Most important of all—and this is a key point—the new ODR platforms will, perhaps unique among the current menu of legal tech innovations, require a mix of traffic *and* information rules to run well.

ODR is not new. The private sector has used it for years. Companies such as eBay, Amazon, and Modria adjudicate tens of millions of mostly commercial disputes per year, easily dwarfing the case flows in all American courts combined.¹¹⁷ In fact, the advent of private ODR was a prerequisite for the emergence of the current e-commerce empire—a way to manage conflict and create trust amidst rapid innovation in online markets that would have quickly overwhelmed the relatively inelastic capacities of public courts.¹¹⁸

Court adoption of ODR, by contrast, is of more recent vintage. Indeed, the first major wave of court adoptions—that is, formally court-linked ODR

¹¹⁵ For overviews of ODR technology, see SUSSKIND, *supra* note 60, and ETHAN KATSH & ORNA RABINOVICH-EINY, *DIGITAL JUSTICE: TECHNOLOGY AND THE INTERNET OF DISPUTES* (2017).

¹¹⁶ The “advanced” here is important. Many state courts are already providing online form completion services. See, e.g., J.J. Prescott, *Improving Access to Justice in State Courts with Platform Technology*, 70 VAND. L. REV. 1993, 1999 (2017); Amy J. Schmitz, *Expanding Access to Remedies through E-Court Initiatives*, 67 BUFF. L. REV. 89, 92-93 (2019) (discussing how courts in Michigan, Ohio, and New York are innovating and developing online dispute resolution pilot projects to resolve certain types of disputes).

¹¹⁷ See KATSH & RABINOVICH-EINY, *supra* note 115, at 10-11 (describing how eBay's SquareTrade software provided “some structure to the communication and to the flow of information between the parties,” allowing it to facilitate and “handle millions of disputes” over time); Rory Van Loo, *Federal Rules of Platform Procedure*, 88 U. CHI. L. REV. 829, 837-50 (2021) (discussing the different dispute resolution strategies employed by online marketplace, social, sharing, and search platforms).

¹¹⁸ KATSH & RABINOVICH-EINY, *supra* note 115, at 14 (“No one—neither the courts, nor alternative processes—is prepared to handle the volume, variety, and character of disputes that are a by-product of the levels of creative and commercial activity happening online today.”).

platforms¹¹⁹—came as recently as 2016.¹²⁰ Since then, however, ODR has steadily gained momentum, fueled by the emergence of multiple software vendors vying for market share and a growing portfolio of pilots in Michigan,¹²¹ Ohio,¹²² and Utah,¹²³ among other states, and globally, from Canada¹²⁴ to the U.K.¹²⁵ to Singapore.¹²⁶ More recently, a pandemic-induced torrent of civil filings has also spurred innovation, causing many state courts to implement prehearing “diversion programs” to resolve rising eviction, consumer debt, and other low-value but systemically important cases.¹²⁷ By late 2019, just before the COVID-19 pandemic began, some sixty-six state and local courts had already piloted one or another ODR system.¹²⁸ By the time the pandemic ends, ODR may well be the new normal.

Currently, most of these court linked ODR platforms are just virtual gathering places where disputants can engage, typically asynchronously, and bargain their way to settlement without costly trips to court. They are “pajama

¹¹⁹ This distinguishes ODR platforms that operate outside the court system (e.g., GetAid, SplitUp, AssetDivider) from platforms that are linked to the court system (e.g., Matterhorn).

¹²⁰ For discussion on court adoption of ODR before 2016 and first major court adoptions, see Michael J. Wolf, *Collaborative Technology Improves Access to Justice*, 15 N.Y.U. J. LEGIS. & PUB. POL’Y 759, 773–75 (2012). Earlier efforts, such as a court annexed ODR project in Michigan called “Cyber Court,” quickly folded. See Brian A. Pappas, *Online Court: Online Dispute Resolution and the Future of Small Claims*, 12 UCLA J.L. & TECH. 1, 10–11 (2008) (noting reasons for the Michigan Cyber Court’s abandonment, including lack of funding and litigant privacy concerns); see also Lucille M. Ponte, *The Michigan Cyber Court: A Bold Experiment in the Development of the First Public Virtual Courthouse*, 4 N.C. J.L. & TECH. 51, 58–61 (2002) (discussing Michigan’s “Cyber Court” in detail, including the composition of judges and the court’s subject matter jurisdiction).

¹²¹ See Off. of Disp. Resol., *Resolve a Dispute Online with MI-Resolve*, MICH. CTS., <https://courts.michigan.gov/administration/scao/officesprograms/odr/pages/mi-resolve.aspx> [<https://perma.cc/SZ2Y-4ERG>].

¹²² See generally J.J. Prescott & Alexander Sanchez, *Platform Procedure: Using Technology to Facilitate (Efficient) Civil Settlement*, in SELECTION AND DECISION IN JUDICIAL PROCESS AROUND THE WORLD: EMPIRICAL INQUIRIES (Yun-chien Chang ed., 2020).

¹²³ PAULA HANNAFORD-AGOR, KATHRYN J. GENTHON, SUSANNE MITCHELL & DIVYA MATHEW, *IMPACT OF THE UTAH ONLINE DISPUTE RESOLUTION (ODR) PILOT PROGRAM: FINAL REPORT* (2020), <https://nsc.contentdm.oclc.org/digital/collection/adr/id/66> [<https://perma.cc/NF5R-B7FE>].

¹²⁴ KATSH & RABINOVICH-EINY, *supra* note 115, at 151 (describing a system in British Columbia that hosts consumer disputes).

¹²⁵ See SUSSKIND, *supra* note 60 at 166–68 (discussing the use of ODR platforms in England and Wales).

¹²⁶ *Id.* at 172–73.

¹²⁷ See JOINT TECH. COMM., CONF. OF STATE CT. ADM’RS, NAT’L ASS’N FOR CT. MGMT., NAT’L CTR. FOR STATE CTS., *JUDICIAL PERSPECTIVES ON ODR AND OTHER VIRTUAL COURT PROCESSES* 1,5 (2020) (suggesting that the number of these types of disputes will likely rise during the pandemic while U.S. courts have adopted ODR to handle their caseloads in the same period).

¹²⁸ For an overview of adoption in the U.S. as of 2019, see CTR. FOR INNOVATION, A.B.A., *ONLINE DISPUTE RESOLUTION IN THE UNITED STATES* (2020), https://www.americanbar.org/groups/centers_commissions/center-for-innovation/online-dispute-resolution-in-us [<https://perma.cc/H3WG-TS23>].

justice,” as some call them.¹²⁹ And, while ODR platforms are not merely remote proceedings of the sort described in Section II.A,¹³⁰ most current court-linked ODR systems remain relatively straightforward technologically, providing an asynchronous, 24/7 forum and, in some instances, access to human facilitators who help disputants organize and classify their problems and help inform them about their prospects and options.¹³¹

But there is a new type of ODR technology—call it ODR 2.0—that provides disputants more than just a convenient gathering place or easy access to human facilitators. ODR 2.0 incorporates algorithmic tools in order to prime the parties with needed information without the need for a flesh-and-blood, human dispute handler.¹³² The most basic versions, long deployed in private ODR systems, include double-blind bidding to find overlap in the parties’ reservation prices.¹³³ Slightly more complex versions draw on the parties’ confidentially inputted preferences or even similar past disputes within the system in order to present the disputants with settlement

¹²⁹ Claire Osborn & Taylor Goldenstein, *Area Judges Make Plans to Try Out “Pajama” Court*, STATESMAN NEWS NETWORK, <https://www.statesman.com/news/20180618/area-judges-make-plans-to-try-out-pajama-court> [<https://perma.cc/K5LR-PJ5Z>] (Sept. 25, 2018, 9:06 AM); Ali Linan, *Williamson County Commissioners Approve Pilot Program to Speed Up Small Claims Lawsuits*, CMTY IMPACT NEWSPAPER (June 5, 2018, 7:51 PM), <https://communityimpact.com/georgetown/city-county/2018/06/05/williamson-county-commissioners-approve-pilot-program-to-speed-up-small-claims-lawsuits> [<https://perma.cc/9B3J-YA86>].

¹³⁰ See Anjanette H. Raymond & Scott J. Shackelford, *Technology, Ethics, and Access to Justice: Should an Algorithm be Deciding Your Case?*, 35 MICH. J. INT’L L. 485, 500 (2014) (“We argue that a true ODR system is one that allows the parties to do more than merely complain—the platform must involve the resolution of a dispute and use a neutral facilitator (mediation) or a neutral decision maker (arbitration).”).

¹³¹ See SUSSKIND, *supra* note 60, at 153 (noting “tools and methods to help lay people organize and classify their cases (turning a grievance into a justiciable problem) and to analyse and reason (coming to a legal view)”).

¹³² See SUSSKIND, *supra* note 60, at 6 (suggesting technology alone can provide tools to court users, such as helping them understand relevant law); KATSH & RABINOVICH-EINY, *supra* note 115, at 47 (noting ODR’s shift from “a process that simply facilitates communication of information to one that processes it”); see also John Zeleznikow, *Can Artificial Intelligence and Online Dispute Resolution Enhance Efficiency and Effectiveness in Courts*, 8 INT’L J. FOR CT. ADMIN. 30, 35-36 (2017) (discussing the integration of artificial intelligence into ODR systems, which enhances the user’s experience with the platform); Darin Thompson, *Creating New Pathways to Justice Using Simple Artificial Intelligence and Online Dispute Resolution*, 2 INT’L J. ONLINE DISP. RES. 4, 12-13 (2015) (positing that “widespread adoption of [artificial intelligence] in the legal realm” can enhance ODR platforms).

¹³³ This approach, launched by ODR pioneer Cybersettle in 1998 and now a pervasive one, has claimant and defendant submit their highest and lowest settlement numbers in search of overlap. See Diane J. Levin, *Cybersettle Makes the Case for Resolving Disputes Online*, MEDIATION CHANNEL (Feb. 20, 2008), <https://mediationchannel.com/2008/02/20/cybersettle-makes-the-case-for-resolving-disputes-online> [<https://perma.cc/9GVV-UH2K>] (explaining that Cybersettle provides disputants three opportunities to submit settlement offers or demands and settles disputes when an offer is equal to or exceeds the opposing disputant’s demand).

“packages” on issues in controversy.¹³⁴ A still more sophisticated version incorporates an outcome prediction engine that uses predictive analytics to arm the parties with a BATNA—the best alternative to a negotiated agreement—or a set of probabilities over multiple potential outcomes so they can bargain in the shadow of what a court is likely to decide.¹³⁵ One way of thinking about this is that an AI-based ODR system replaces a human mediator who, in the analog mediation context, would engage in a kind of shuttle diplomacy, moving back and forth between the parties and “fogging their glasses,” as one mediator put it, to nudge them toward settlement.¹³⁶ Whatever the algorithmic method or the best analogy for describing it, ODR’s clear future is to provide an automated, non-human, informational bridge from legal claim to remedy.¹³⁷

From a procedural perspective, ODR brings all the complexities of when and how to migrate formal legal proceedings online—the *traffic rules* noted previously. Indeed, ODR platforms raise the same complex trade-offs among efficiency and access values as online courts. On one hand, ODR’s asynchronous and 24/7 nature means it can capture even more efficiencies than remote proceedings, by making dispute resolution available despite the work and childcare barriers that can impair the ability of those without financial wherewithal to participate in online but synchronous proceedings.¹³⁸

¹³⁴ Ernest Thiessen, Paul Miniato & Bruce Hiebert, *ODR and eNegotiation*, in ONLINE DISPUTE RESOLUTION: THEORY AND PRACTICE, A TREATISE ON TECHNOLOGY AND DISPUTE RESOLUTION 345 (Mohamed S. Abdel Wahab, Ethan Katsh & Daniel Rainey eds., 2012); KATSH & RABINOVICH-EINY, *supra* note 115, at 35-36, 49 (describing multiple systems and noting, with reference to Smartsettle, that the “software examines the way in which the parties ranked their interests and analyzes whether at least one of the parties’ interests can be better met without making the other party worse off. If there is an alternative solution, the parties are presented with it; they can then either choose the proposed agreement offered by the software or remain with the resolution they originally negotiated.”).

¹³⁵ See Zeleznikow, *supra* note 132, at 39-40.

¹³⁶ See SUSSKIND, *supra* note 60, at 6, 298 (referring to ODR as “extended courts” and suggesting that it can help disputants “understand relevant law and the options available to them” and thus “giv[e] the self-represented some of the heft of a client with a lawyer”). For the “fogging” notion, from former federal judge Vaughn Walker, see American Law Institute, *Coping with COVID: Administering Jury Trials, Mediations, and Complex Litigation*, at 03:55-04:02, <https://www.ali.org/news/podcast/episode/coping-covid-jury-trials-mediations-complex-litigation> [<https://perma.cc/72KB-84UY>].

¹³⁷ See SUSSKIND, *supra* note 60, at 298 (noting that ODR can provide “a bridge, a connection, between legal understanding and remedy”).

¹³⁸ See Prescott, *supra* note 116, at 1999-2000 (suggesting ODR enhances access to justice by allowing disputants to participate in negotiations at any time of day they choose regardless of whether the other disputant participates at that time); see also Maximilian A. Bulinski & J.J. Prescott, *Online Case Resolution Systems: Enhancing Access, Fairness, Accuracy, and Efficiency*, 21 MICH. J. RACE & L. 205, 224, 227 (2016) (reporting suggestive data indicating “that a large fraction of the population would find it more convenient to address their legal issues at times when courts are closed” and further describing how business hours-type availability can hamper attempts at “accessing justice”).

ODR is also highly scalable, unlike remote formal proceedings. It overcomes the inelasticity of conventional, court-centered process that renders much of the American system disproportionate and unaffordable for many parties with small-dollar claims. On the other hand, ODR raises “equality of arms” concerns, analogous to traditional court proceedings where one side has better technology. Some courts have already set into place basic technological requirements for ODR systems. For instance, there is consensus that ODR platforms must be compatible with mobile technologies, which are the sole source of online access for a nontrivial portion of the population.¹³⁹ Some courts have gone further, providing public kiosks clustered in communities with wide digital divides where disputants can confidentially engage.¹⁴⁰

Debate over ODR traffic rules, however, will extend well beyond such concerns, reigniting deeper, decades-old debates about mandatory, court-annexed ADR.¹⁴¹ A common concern as ADR proliferated in the 1980s and 1990s was its effect on disadvantaged groups, who often do worse in informal, less rulebound contexts.¹⁴² Co-optation of the system by lawyers—a concern in adjudicatory systems designed to be accessible to lay litigants¹⁴³—can

ODR also mitigates “system avoidance”—the notion that disputants might avoid courthouses because of fear of criminal justice contact and the potential to be apprehended for outstanding violations or of a more diffuse perception that interactions with police and courts are dangerous. Sarah Brayne, *Surveillance and System Avoidance: Criminal Justice Contact and Institutional Attachment*, 79 AM. SOC. REV. 367, 371-72 (2014); Alexandra Natapoff, *Misdemeanors*, 85 S. CAL. L. REV. 1313, 1317 (2012) (suggesting that for petty crimes, convictions are primarily a function of being arrested for the offense). Online participation may mitigate other psychological barriers: fear of speaking in public, and shame (a particular concern in debt collection disputes). See Prescott, *supra* note 116, at 2007-08 (suggesting that court appearances create anxieties for pro se litigants, especially when the dispute concerns failure-to-pay warrants). There are also social savings: bringing together the full panoply of justice system actors—judges, parties, counsel, and others—for in-person proceedings is costly. See Bulinski & Prescott, *supra* note 138, at 208-09 (noting this fact).

¹³⁹ James E. Cabral, Abhijeet Chavan, Thomas M. Clarke, John Greacen, Bonnie Rose Hough, Linda Rexer, Jane Ribadeneyra & Richard Zorza, *Using Technology to Enhance Access to Justice*, 26 HARV. J.L. & TECH. 241, 268-69 (2012).

¹⁴⁰ *Id.* at 269-70.

¹⁴¹ Yishai Boyarin, *Court-Connected ADR—A Time of Crisis, A Time of Change*, 95 MARQ. L. REV. 993, 1007-10 (2012).

¹⁴² See Richard Delgado, Chris Dunn, Pamela Brown, Helena Lee, David Hubbert, *Fairness and Formality: Minimizing the Risk of Prejudice in Alternative Dispute Resolution*, 1985 WIS. L. REV. 1359, 1360 (1985) (suggesting that informal ADR may lead to more “class-based prejudice”); Trina Grillo, *The Mediation Alternative: Process Dangers for Women*, 100 YALE L.J. 1545, 1549-50 (1991) (concluding that mandatory mediation for custody disputes can be harmful to disputants because of its implicit normative standards concerning speaking style and conduct).

¹⁴³ See, e.g., Nora Freeman Engstrom, *A Dose of Reality for Specialized Courts: Lessons from the VICP*, 163 U. PA. L. REV. 1631, 1713-15 (2015); see also *Walters v. Nat’l Ass’n of Radiation Survivors*, 473 U.S. 305, 324-26 (1985) (observing that “[t]he regular introduction of lawyers” into proceedings can erode informality and expedience).

exacerbate these effects.¹⁴⁴ So might judges. The last time ADR swept into court systems, some argued judges were using it to discard undesirable cases, thus establishing different tiers of justice that operated to restrict, rather than expand, access to justice among the worst off.¹⁴⁵ As with the migration of formal court proceedings online, one might worry that ODR platforms, sold as a way to empower those who tend to lose out in the analog litigation system, will instead slide into a highly efficient, Fordist system for creditors and landlords to garnish wages and perfect evictions.

But to stop at *traffic* rules would be to dramatically understate the rule reckonings that lie ahead as ODR proliferates. For ODR's more advanced versions also implicate *information rules* governing how information is distributed, exchanged, and utilized. The easiest to see is in the choice of technique ODR 2.0 uses to prime disputants with information as they bargain toward settlement. As already noted, some current court-linked ODR platforms rely on human facilitators to prime disputants with information, making ODR an asynchronous version of the mediation-based ADR systems that have been around since the 1980s. ODR 2.0 alters this picture by instead using algorithmic add-ons that run the gamut from relatively simple bidding systems to more advanced outcome-prediction engines that arm parties with information about their prospects using data from past disputes within the system.¹⁴⁶ Importantly, the choice of algorithmic technique—and also the more granular, technical choices made in its construction and finetuning—are plainly procedural in the sense that they shape the information available to the parties and provide the framework within which substantive outcomes are pursued. But they also, as with procedure more generally, can shape substance. ODR 2.0 thus offers a concrete, procedural illustration of Larry Lessig's much cited notion that code is law.¹⁴⁷

¹⁴⁴ Bobbi McAdoo & Nancy A. Welsh, *Look Before You Leap and Keep on Looking: Lessons from the Institutionalization of Court-Connected Mediation*, 5 NEV. L.J. 399, 420 (2005). Carrie Menkel-Meadow, *Pursuing Settlement in an Adversary Culture: A Tale of Innovation Co-opted or "The Law of ADR"*, 19 FLA. ST. U. L. REV. 1, 42-44 (1991) (suggesting various reforms to ADR to ensure that it develops while enhancing trust in the legal system).

¹⁴⁵ See Burbank & Silberman, *supra* note 24, at 697-98 (noting concerns about creating "different classes of justice, with disfavored cases shunted to mandatory ADR"). Such concerns persist: a recent study found an invisible layer of procedures applied by judges that functionally barred many litigants from getting any kind of a live hearing in court. See Colleen F. Shanahan, *The Keys to the Kingdom: Judges, Pre-Hearing Procedure, and Access to Justice*, 2018 WIS. L. REV. 215, 235-36 (2018) (providing data indicating the proportion of pre-hearing requests granted by judges and suggesting such requests may serve to inhibit pro se litigants from accessing civil justice).

¹⁴⁶ SUSSKIND, *supra* note 60, at 159-63; KATSH & RABINOVICH-EINY, *supra* note 115, at 46-49, 162-63.

¹⁴⁷ LAWRENCE LESSIG, *CODE AND OTHER LAWS OF CYBERSPACE* (1999). Some ODR evangelists suggest otherwise and reassure us that ODR 2.0 systems can be "rule-implementing" rather than "rule-creating." See SUSSKIND, *supra* note 60, at 162-63 (asserting that ODR "should be

This core fact about ODR 2.0 drastically complicates procedural debates about its optimal design and implementation. To begin, ODR 2.0 will raise the usual debate about the relative capacities of clinical and actuarial judgment to mitigate and exacerbate human biases that arises in many algorithmic decision-making contexts. Algorithmic tools, as a long literature establishes, can be biased or inaccurate compared to human decision-makers, but they can also perform *better* on both counts by reducing the cognitive biases that can afflict human decisions.¹⁴⁸ Focusing on this latter, bias-reducing possibility, ODR's champions claim it is a panacea, cutting the Gordian knot that has forever afflicted adjudication by achieving better efficiency *and* justice, rather than pursuing one at the expense of the other.¹⁴⁹ However, those with technical command of machine learning's possibilities and limits know that this will not always be the case.

A second family of concerns raised by ODR 2.0, particularly those that provide disputants with outcome predictions, echoes another part of the decades-old debate about mandatory, court-annexed ADR: how directive should alternative adjudication systems be, and at what cost to procedural justice, litigant autonomy and self-determination, and the legitimacy and remedial flexibility they bring?¹⁵⁰

A final concern that is likely to rise to the top of the list as ODR 2.0 proliferates is transparency, for ODR 2.0's automated outcome predictions will be deeply embedded in code that is opaque compared to the public deliberative exercises and written down decisions of the analog court system. It is, of course, easy to overstate transparency concerns. Judges are black boxes, too, with reasoning left implicit or ambiguous—not to mention opinion-less rulings from the bench.¹⁵¹ And yet, the inability of many advanced algorithmic

a rule-implementing and not a rule-creating process” and concluding that “[w]e cannot allow coding to become law-making”). However, the porousness of the substance-procedure distinction means that ODR's more advanced forms most likely will always, to at least some extent, create rather than merely implement rules.

¹⁴⁸ See Kleinberg et al., *supra* note 103, at 115 (noting that algorithmic tools can mitigate or exacerbate bias); KATSH & RABINOVICH-EINY, *supra* note 115, at 48-51 (same).

¹⁴⁹ KATSH & RABINOVICH-EINY, *supra* note 115, at 165.

¹⁵⁰ Boyarin, *supra* note 141, at 1007-10. Closely related are anxieties about ODR 2.0's potential to shrink available sources of information and counsel within the system. As noted previously, legal tech is hatching numerous other non-state sources of information and guidance: websites, chatbots and other QA (or “question and answer”) systems, livechats, webcasts, document construction services, text message reminders, and more. See SUSSKIND, *supra* note 60, at 107 (describing “systems and services” under the “heading of ‘public legal education’ or ‘legal empowerment . . .’”). But ODR 2.0 threatens to crowd out these more pluralistic sources of counsel and raises a concern, sounding in political theory, about any one source of case-critical information, particularly a state-created one, coming to dominate.

¹⁵¹ See Rebecca Crotoof, “*Cyborg Justice*” and the Risk of Technological-Legal Lock-in, 119 COLUM. L. REV. F. 233, 238 (2019) (noting that “both human and AI judges may be black boxes”); Eugene Volokh, *Chief Justice Robots*, 68 DUKE L.J. 1135, 1187 n.154 (2019) (“[I]t is hard to see why we should

systems to provide any reasons at all is troubling. One plausible defense of opacity, though hardly a complete one, begins by noting that ODR 2.0 collects, uses, and makes available system-level data far beyond what is generated in analog systems. Data can, in turn, be used to inform continuous process improvement and even wider reforms, whether in courts or other branches of government, aimed at preventing disputes from arising in the first place.¹⁵² As Richard Susskind puts it, conventional courts have always had a high level of “real-time transparency,” but a low level of “information transparency.”¹⁵³ ODR 2.0 could flip this state of affairs and leave us better off than before, so long as the scrutability lost when rules are embedded in code are offset by gains in more actionable, system-level information.¹⁵⁴

The billion dollar question for ODR, as with online courts or lawyer-driven legal tech tools, is once more *who* gets to decide the mix of rules, both traffic and information, that will govern the new systems. Here, the complexity of the efficiency and access trade-offs presented by ODR raises all the same traffic-related questions about the optimal mix of party control, judicial discretion, and per se rules as does the online migration of formal legal proceedings. But the information that ODR systems generate lead to a wrinkle: traffic rules could *themselves* be automated. That is, decisions about which litigants are pushed into ODR, or which among multiple ODR systems they are pushed to, could be given over to machines wielding predictive analytics.¹⁵⁵

prefer the inscrutable silicon-based AI judge black box to the equally inscrutable carbon-based human judge black box.”).

¹⁵² See SUSSKIND, *supra* note 60, at 194 (calling for “visibility over . . . data about the throughput and volumes of cases, their subject matter and value . . .”); see also Rebecca A. Johnson & Tanina Rostain, *Tool for Surveillance or Spotlight on Inequality? Big Data and the Law*, 16 ANN. REV. L. & SOC. SCI. 453, 466 (2020) (noting use of big data and computational harms to predict harms, potentially obviating the need for legal process).

¹⁵³ SUSSKIND, *supra* note 60, at 194.

¹⁵⁴ *Id.* at 199 (suggesting that increases in “information transparency” might offset reductions in “real-time transparency”). For a jurisprudential version of the argument, see Brian Sheppard, *Warming Up to Inscrutability: How Technology Could Challenge Our Concept of Law*, 68 U. TORONTO L.J. 36, 40-43 (2018). A nice way to capture all of this is to note that ODR is a *system* rather than a mere *tool*. KATSH & RABINOVICH-EINY, *supra* note 115, at 35, 52 (noting how ODR “lift[s] the onus” of obtaining justice from individual to entity); *id.* at 163 (“As courts increasingly rely on digital technology and ODR systems, they will learn to view data as a central feature in dispute resolution.”).

¹⁵⁵ SUSSKIND, *supra* note 60, at 239 (noting the possibility that an algorithmic system “could allocate hard cases to the traditional court without any human analysis and intervention and could do so to a higher standard than case officers and judges . . .”). Mass adjudicatory agencies like the Social Security Administration have already experimented with triage tools to push certain disability benefits cases—for instance, “easy grants”—into an alternative, staff-overseen process rather than a full-dress proceeding before an administrative judge. See DAVID FREEMAN ENGSTROM, DANIEL E. HO, CATHERINE M. SHARKEY & MARIANO-FLORENTINO CUÉLLAR, *GOVERNMENT BY ALGORITHM: ARTIFICIAL INTELLIGENCE IN FEDERAL ADMINISTRATIVE AGENCIES* 83 (2020)

That is just the beginning of ODR's potentially radical implications for American procedure, for the demands of devising rules for new ODR platforms—particularly their information-priming algorithmic components—fit awkwardly with past ways of American procedure-making and strongly suggest the need for entirely new approaches. Judicial discretion might do when it comes to refashioning proportionality or the work product doctrine as new legal tech tools come into the system. But it seems positively unwise to leave ODR 2.0's design and implementation to court-only administration. Nor does the design and oversight of ODR 2.0 fit well with the rulemaking process, at least in its typical *ex ante* and drawn out forms. Instead, ODR 2.0 will require something closer to ongoing, multistakeholder oversight via a process that brings together judges, lawyers, technologists, and key stakeholders to develop, finetune, monitor, amend, and, where necessary, decommission ODR systems. Continuous oversight, not case-level judicial exercise of discretion or *ex ante* specification of rules by rulemakers, would seem to be the order of the day.

Much work remains to be done to specify what a new multistakeholder design and governance scheme could or should look like. One might start by examining the various bodies, among them state access to justice commissions, that have pioneered new approaches to adjudication and access to justice in recent decades, from *pro se* court forms and self-help centers to court navigator programs and limited scope lawyer and nonlawyer assistance programs.¹⁵⁶ More recent examples can be found in the rapid construction of online “diversion programs” by many state courts during the COVID-19 pandemic to handle a crush of eviction and consumer debt cases.¹⁵⁷ And a few states are experimenting with or exploring a “regulatory sandbox” approach to welcome new legal services providers into the system, including software.¹⁵⁸ Each of these approaches will require careful study to understand

(“The SSA’s tool for clustering like cases, for instance, potentially enables adjudicators to work through cases more quickly *and* more equitably, improving the consistency of decision making.”).

¹⁵⁶ This was also true of the various state-level access to justice commissions that various state supreme courts created and charged with crafting responses to the *pro se* crisis. For more on state access to justice commissions, see *Access to Justice Commissions*, A.B.A., https://www.americanbar.org/groups/legal_aid_indigent_defense/resource_center_for_access_to_justice/atj-commissions [<https://perma.cc/8H2K-UP7P>]; *Justice for All*, NAT’L CTR. FOR STATE CTS., <https://www.ncsc.org/jfa> [<https://perma.cc/9YWQ-8TD5>].

¹⁵⁷ For an example of a state-level program, see Mich. Sup. Ct., Priority Treatment and New Procedure for Landlord/Tenant Cases, Administrative Order No. 2020-17 (2020), https://courts.michigan.gov/Courts/MichiganSupremeCourt/rules/court-rules-admin-matters/Administrative%20Orders/2020-08_2020-06-09_FormattedOrder_AO2020-17.pdf [<https://perma.cc/53GN-FC4Q>]. For a local-level example, see PINELLAS EVICTION DIVERSION PROGRAM, <https://pinellasevictiondiversion.org/> [<https://perma.cc/XCX4-7Y3C>].

¹⁵⁸ See, e.g., *What We Do*, OFF. OF LEGAL SERVS. INNOVATION, <https://utahinnovationoffice.org/about/what-we-do> [<https://perma.cc/34DW-LSAA>] (providing details on Utah’s sandbox pilot, including what amounts to a regulatory agency as a gatekeeper for entry into the new, experimental system under

which holds the most promise for the governance and oversight of ODR systems. Only then can smart “who decides” decisions be made.

What is clear is that even the best-designed governance scheme will raise many of the same anxieties that plagued the past several decades of rulemaking. Questions will arise about the system’s capacity to make empirically informed judgments about the effects of design choices. The process of system design and governance will also surely reflect the double-edged sword of public ventilation of the rulemaking process. Perhaps a modified, multistakeholder rulemaking process will be up to the task of setting into place sensibly designed ODR systems that balance competing values. After all, court innovation in response to the pandemic has, by most accounts, gone smoothly. However, not nearly enough time has passed, or studies done, to understand its contours, and nor can we be confident that postpandemic political realities will be the same. Instead, it is not hard to imagine that ODR’s post-pandemic career will fuel a further politicization of procedure beyond even what we have seen in recent decades, with ODR platforms designed to resolve consumer debt or eviction cases quickly devolving into a politically charged extension of an often dysfunctional social welfare politics. The ability of American procedure-making to manage that kind of conflict in the past does not inspire confidence. But the ability of the American legal system to modulate legal tech’s coming will depend on it, and we should hope that it can.

III. THE WAY FORWARD: A DIGITAL RESEARCH AGENDA

Part II sketched a set of rule reckonings that lie ahead as new digital technologies make their way to the center of the civil justice system. Some questions remain: what role might civil procedure scholars play in helping judges and rulemakers navigate that process? And, to return to where we began, what does Professor Burbank’s masterful body of scholarship teach us about how to go about that work? There is not time here to lay out a full-scale research agenda. But Professor Burbank’s efforts to surface the key tensions that have defined the past century of American procedure can help us to glimpse a range of critically important roles for legal scholars, and for proceduralists in particular, as the American civil justice system moves into the digital future. This concluding Part offers some brief observations about each.

Perhaps the easiest role to see is the one that procedural scholars, including Professor Burbank, have always played: scholars must surface and

relaxed legal practice rules); *see also* *Closing the Justice Gap Working Group*, STATE BAR OF CAL., <http://www.calbar.ca.gov/About-Us/Who-We-Are/Committees/Closing-the-Justice-Gap-Working-Group> [<https://perma.cc/25Q9-8JGQ>] (describing a group appointed to consider a sandbox approach to spur innovation in legal services delivery).

analyze competing rule choices and deconstruct the efficiency, access, distributive, and other trade-offs raised by each. Some of this work will come in the form of conventional but vitally important scholarship analogizing new digitized procedural challenges to past procedural debates. As just one example, we might seek to understand traffic rules for moving litigants into and out of new virtual fora by reference to past debates over the enforceability of forum selection agreements and concerns about forum shopping.

Yet litigation's digitization will also inaugurate a new era of empirical legal studies by raising crucial questions about the effects of rule choices while simultaneously creating vast new troves of data with which to answer them. More than ever, the onus will be on civil procedure scholars—a Fourth Estate of the procedural realm—to help judges exercise their considerable discretion and navigate the shoals of a newly digitized civil justice system.

To perform that role well, proceduralists must, as Professor Burbank once put it, “find out the facts, in particular the facts about discretionary justice.”¹⁵⁹ But judicial discretion's effects is only one type of empirical question to be answered. What, precisely, is gained and lost in the migration of formal court proceedings online? If the online migration is left up to party consent, how much will strategic bargaining, with litigation's haves using migration as a bargaining chip against cost-conscious adversaries, shape access and outcomes? And when might per se rules be the better choice? Turning to lawyer-driven legal tech tools, just how great are the litigation advantages conferred by potent new applications, from e-discovery to legal analytics to outcome prediction, whether in choosing a forum, battling over discovery, or negotiating toward settlement? Might the systemic gains from better information, however unevenly distributed, exceed the distributive costs? Finally, there's ODR: how do different modes of ODR, from ODR 1.0's virtual gathering places to ODR 2.0's BATNA-generating outcome engines, shape settlement outcomes? Is ODR 2.0 worth the candle? Might cost, not information, be the sticking point in the run of minor but systemically significant cases that ODR currently targets? And how to keep the problems that have afflicted ADR from afflicting ODR?

Exploiting new streams of data to answer these and other questions, however, will not be easy. Selection bias, the bane of procedure empiricism, will once more loom large when connecting traffic rules to case outcomes. Without controlled and randomized experiments, true causal inference will be elusive. In addition to these standard methodological challenges, the online migration will yield a vast trove of new data, including digitized courtroom footage, that will provide a ground-level look at litigation that

¹⁵⁹ Burbank, *The Transformation of American Civil Procedure*, *supra* note 4, at 1940.

could previously be achieved only by amassing written transcripts or doing resource-intensive observational work in local courthouses. The difficulty of these latter tasks may explain why we know so little about state and local courts,¹⁶⁰ and why the few procedure scholars who bother to do resource- and time-intensive observational work generate such eye-popping insights.¹⁶¹ But video transcripts will also require new methods, including some of the same machine learning techniques that are powering new legal tech tools, to interrogate the new mass of digitized data with any rigor. Professor Burbank's turn, well into his career, to rigorous, hard-edged empiricism can serve as a model of the methodological innovation that will be necessary to fully exploit the empirical fruits of a digitizing litigation system.

A second broad role for procedure scholars relates to the datafication that digitization will bring: proceduralists can and must advocate for access to data, not merely as fuel for scholarly evaluation and validation of rule choices of the sort that Professor Burbank has long called for, but also as an increasingly central determinant of access to justice. Legal tech tools can only be as good as the data that power them. “Garbage in, garbage out”—a mantra among algorithmic critics of all stripes—is no less applicable to legal tech tools. A key implication, and the subject of an emerging “open court data” movement, is that the decisions that judges, chief judges, and court administrators make about data accessibility and infrastructure will shape the innovation ecosystem and, by extension, help determine whether new legal technologies serve all or only a privileged few. Though our constitutions, statutes, and rules are dotted with “open court” provisions, court data has long been some of the most closely held government data and some of the hardest to dislodge. Charlotte Alexander, who is also one of the leaders of the “open court data” movement just noted, puts it best: court records, from the federal level on down, sit behind a “wall of cash and kludge.”¹⁶² This combination of clunky user interfaces and paywalls place court records, especially the bulk downloads needed to build potent legal tech applications, beyond the reach of all but the most well-heeled law firms and tech

¹⁶⁰ See, e.g., Justin Weinstein-Tull, *The Structures of Local Courts*, 106 VA. L. REV. 1031, 1034 (2020) (“[D]espite the place of local courts at the heart of the justice system . . . , we know very little about them.”).

¹⁶¹ See, e.g., Jessica E. Steinberg, Anna E. Carpenter, Colleen F. Shanahan, & Alyx Mark, *Judges and the Deregulation of Lawyer's Monopoly*, 89 FORDHAM L. REV. 1315, 1316 (2021) (showing how judges have sought to manage the pro se crisis via a de facto deregulation of the legal services industry by actively facilitating a “shadow network” of nonlawyer legal services providers in local courthouses).

¹⁶² See Charlotte S. Alexander & Mohammad Javad Feizollahi, *On Dragons, Caves, Teeth, and Claws: Legal Analytics and the Problem of Court Data Access*, in COMPUTATIONAL LEGAL STUDIES: THE PROMISE AND CHALLENGE OF DATA-DRIVEN LEGAL RESEARCH 95, 97 (Ryan Whalen ed., 2020).

companies.¹⁶³ There are, to be sure, privacy concerns that must be addressed.¹⁶⁴ But finding a way to make court data more accessible is critical. As legal tech tools move to the center of American litigation, access to data will increasingly determine access to justice. Procedural scholars must show how and why that is true.

A third and final role for procedure scholars is more diffuse but perhaps most important of all. Just as Professor Burbank's scholarly work has so often done, procedure scholars must strive to be the conscience of the system. The most important way proceduralists can serve in this role is by self-consciously serving as the principal, and a principled, line of defense against both over and underreliance on new legal technologies.

Overreliance is the more commonly voiced concern these days given a growing anti-tech zeitgeist.¹⁶⁵ And with good reason. Technological change

¹⁶³ Importantly, paywalls may get worse: state courts have digitized during the pandemic, embracing e-filing like never before. But COVID has also created powerful budgetary pressures that will be felt for decades, particularly at the state and local level. These pressures will in turn provide powerful incentives for courts to monetize their newly digitized records.

¹⁶⁴ Scholars have only just begun to catalog the types of the sensitive information contained in court records, chief among them locational, identity, health, and financial information as well as past involvement in criminal or civil proceedings. David S. Ardia & Anne Klinefelter, *Privacy and Court Records: An Empirical Study*, 30 BERKELEY TECH. L.J. 1807, 1817 (2015). Some are predictable and perhaps even relatively benign in the grand scheme of surveillance capitalism—for instance, the use of divorce records to market fitness services to newly single women. See Karen Gottlieb, *Using Court Record Information for Marketing in the United States: It's Public Information, What's the Problem?*, PRIVACY RIGHTS CLEARINGHOUSE (Feb. 1, 2004), <https://privacyrights.org/resources/using-court-record-information-marketing-united-states-its-public-information-whats> [<https://perma.cc/4CZR-ZSYR>]. But others skirt or even cross lines. Civil court records are being used in pre-employment screenings and consumer credit determinations, and they could plausibly be used by insurance companies. Michael Klazema, *What is Returned in a Civil History Background Check?*, BACKGROUNDCHECKS.COM (Dec. 28, 2018), <https://www.backgroundchecks.com/community/Post/5882/What-is-Returned-in-a-Civil-History-Background-Check> [<https://perma.cc/KMQ5-4D5A>]; see also CHECKR <https://checkr.com> [<https://perma.cc/VQ44-5JN8>] (aspiring to “build a fairer future by breaking down the stigmas around hiring people with criminal records”). An especially discomfiting example comes from reports that a NYC landlord association scraped housing court records to create a blacklist of renters who had the gall to try to vindicate their rights in housing court and should not be rented to. See Emily Myers, *What is the Tenant Blacklist and How Serious Is Being on It?*, BRICK UNDERGROUND (Oct. 19, 2020, 12:30 PM), https://www.brickunderground.com/blog/2014/05/tenant_blacklist [<https://perma.cc/SG9Y-2JDG>] (describing a tenant blacklist that is provided to landlords who are vetting tenants during the rental application process); Kim Barker & Jessica Silver-Greenberg, *On Tenant Blacklist, Errors and Renters With Little Recourse*, N.Y. TIMES (Aug. 16, 2016), <https://www.nytimes.com/2016/08/17/nyregion/new-york-housing-tenant-blacklist.html> [<https://perma.cc/6M7E-FAKB>] (outlining how prospective landlords use the tenant blacklist to “weed out risky tenants”); Ronda Kaysen, *How to Escape the Dreaded ‘Tenant Blacklist’*, N.Y. TIMES (Apr. 13, 2019), <https://www.nytimes.com/2019/04/13/realestate/how-to-escape-the-dreaded-tenant-blacklist.html> [<https://perma.cc/ES58-Y73Y>] (“There are hundreds of tenant screening bureaus, collecting names from courthouses around the country and selling the information to landlords.”).

¹⁶⁵ FRANK PASQUALE, *THE BLACK BOX SOCIETY: THE SECRET ALGORITHMS THAT CONTROL MONEY AND INFORMATION* 3 (2016) (“The law, so aggressively protective of secrecy in

can move too quickly and sweep too broadly, bringing efficiencies that are hard to resist while subverting less quantifiable process values or clear-eyed assessments of what else is lost in the process. As Norm Spaulding has pointed out, the downsides of transformative innovations, and even the alternatives that were available at their adoption, are often swept under the rug or lost to history once path dependence and the leverage of market dominance sets in.¹⁶⁶ This concern might prove especially acute for legal technologies designed to supplant a litigation system that has drawn such intense criticism, only some of it earned, about excessive cost, delay, and adversarialism. We must continually ask what digitization—whether online migration of court proceedings, automated delivery of legal services, or ODR 2.0—will increase access *to*. We must ask, in other words, what kind of justice, and what kind of legal subject, they will combine to deliver.¹⁶⁷ Only by continually asking these questions can proceduralists guard against the risk that digital’s scalability will lead to rapid adoption but an impoverished, gutter system of justice in which the business case, with its emphasis on efficiency and cost reduction, wins out over the sociotechnical or moral case for or against a new approach.

While overreliance is likely to be the more commonly voiced concern, the risk of *underreliance* on potentially transformative legal technologies is also real, particularly in a system built upon judicial discretion. Lawyers are cautious Burkeans at heart. We are trained to be hand-wringers, to see around corners, and to come up with reasons *not* to do things. But if lawyers are professionally disposed against automation, then judges are even more so. A striking illustration is France, which recently banned judge-level analytics

the world of commerce, is increasingly silent when it comes to the privacy of persons.”); VIRGINIA EUBANKS, *AUTOMATING INEQUALITY: HOW HIGH-TECH TOOLS PROFILE, POLICE, AND PUNISH THE POOR* 11 (2018) (“[P]oor and working-class people are targeted by new tools of digital poverty management and face life-threatening consequences as a result.”); CATHY O’NEIL, *WEAPONS OF MATH DESTRUCTION: HOW BIG DATA INCREASES INEQUALITY AND THREATENS DEMOCRACY* 13 (2016) (exploring harmful examples of mathematical models that “affect people at critical life moments”); SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* 17 (2019) (“Surveillance capitalism is not an accident of overzealous technologists, but rather a rouge capitalism that learned to cunningly exploit its historical conditions to ensure and defend its success.”). For a measured rejoinder, see Mariano-Florentino Cuéllar & Aziz Z. Huq, *Economies of Surveillance*, 133 HARV. L. REV. 1280, 1283-85 (2020) (reviewing SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER* (2019)).

¹⁶⁶ Norman W. Spaulding, *Online Dispute Resolution and the End of Adversarial Justice?*, in *LEGAL TECH AND THE FUTURE OF CIVIL JUSTICE*, *supra* note 68.

¹⁶⁷ *Id.*

outright after judges rose up against a law that made court data broadly available to the public.¹⁶⁸

There is, of course, little indication that the U.S. system, with its very different common law commitments and comfort with judicial policymaking, will go the way of France. Still, at the highest precincts of our legal system, judge sentiment might be moving in a similar direction. Consider this progression: Justice Holmes, in his iconic *The Path of the Law*, wrote in 1897: “For the rational study of the law, the black-letter man may be the man of the present, but the man of the future is the man of statistics and the master of economics.”¹⁶⁹ Exactly fifty years later, Justice Douglas sounded a much sourer note: “The law is not a series of calculating machines where definitions and answers come tumbling out when the right levers are pushed.”¹⁷⁰ Fast forward another seventy years to the present-day and Chief Justice Roberts, who observed in a speech that technology “is putting significant strain on how the judiciary goes about doing things.”¹⁷¹ Soon after, he warned: “Beware the robots . . . My worry is not that machines will start thinking like us. I worry that we will start thinking like machines.”¹⁷²

These are just outtakes. They do not necessarily reflect underlying trends in judicial thinking. But talk to virtually any judge about the coming of legal tech, and you will find at least some reason to worry that reflexive judicial opposition to innovations could stymie salutary legal technologies from ever seeing the light of day. Knee-jerk opposition could exacerbate distributive concerns as TAR disputes mount and as courts, climbing out from the COVID-19 pandemic, face the question of which parts of the system to

¹⁶⁸ See Michael Livermore & Dan Rockmore, *France Kicks Data Scientists Out of Its Courts*, SLATE (June 21, 2019, 7:30 AM) <https://slate.com/technology/2019/06/france-has-banned-judicial-analytics-to-analyze-the-courts.html> [<https://perma.cc/UW95-FF2K>] (making “judicial analytics” illegal); Jason Tashea, *France Bans Publishing of Judicial Analytics and Prompts Criminal Penalty*, A.B.A. J. (June 7, 2019, 12:51 PM) <https://www.abajournal.com/news/article/france-bans-and-creates-criminal-penalty-for-judicial-analytics> [<https://perma.cc/V73R-A5XE>] (banning publication of judicial analytics).

¹⁶⁹ Oliver Wendell Holmes, Jr., *The Path of the Law*, 10 HARV. L. REV. 457, 469 (1897).

¹⁷⁰ William O. Douglas, *The Dissent: A Safeguard of Democracy*, 32 J. AM. JUD. SOC’Y 104, 105 (1948).

¹⁷¹ See Adam Liptak, *Sent to Prison by a Software Program’s Secret Algorithms*, N.Y. TIMES (May 1, 2017), <https://www.nytimes.com/2017/05/01/us/politics/sent-to-prison-by-a-software-programs-secret-algorithms.html> [<https://perma.cc/U29M-KENM>].

¹⁷² Debra Cassens Weiss, *‘Beware the Robots,’ Chief Justice Tells High School Graduates*, ABA J. (June 8, 2018, 4:10 PM), https://www.abajournal.com/news/article/beware_the_robots_chief_justice_tells_high_school_graduates [<https://perma.cc/35JL-NE2R>]. Chief Justice Roberts also noted in his 2014 Year-End Report: “[T]he courts will often choose to be late to the harvest of American ingenuity. Courts are simply different in important respects when it comes to adopting technology, including information technology.” CHIEF JUSTICE JOHN ROBERTS, 2014 YEAR-END REPORT ON THE FEDERAL JUDICIARY 3 (2014), <https://www.supremecourt.gov/publicinfo/year-end/2014year-endreport.pdf> [<https://perma.cc/477H-BXLN>].

move—or keep—online, or which pandemic era “diversion” programs should be built out into full-fledged ODR systems. Worse, large companies will continue to develop potent tools to gain a litigation advantage. So will landlords, who already have the help of a growing menu of “proptech” tools to automate evictions.¹⁷³ But judicial aversion to new innovations, from online proceedings to ODR 2.0, could stall tech innovation designed to narrow the justice gap, leaving only legal tech applications that widen it.

There are, in short, profound risks and rewards on all sides. Managing those risks, and realizing those rewards, will require a rich mix of old-fashioned thinking about procedural rules, a heavy dose of methodological innovation, and clear-eyed thinking at all levels of abstraction about what type of civil justice system we want to build as new technologies sweep into it. Proceduralists have always been some of the best-positioned to do that kind of thinking because they already work back and forth between transcendental ideals and the messy realities that cabin the possibilities that can feasibly emerge but may still be better than the status quo.¹⁷⁴ As the next generation of procedural scholars confronts these challenges and helps decision-makers to do the same, there is no better model than Professor Burbank’s rigorous, methodologically eclectic, and farseeing scholarship.

¹⁷³ Erin Mcelroy, Meredith Whittaker & Genevieve Fried, *COVID-19 Crisis Capitalism Comes to Real Estate*, BOSTON REV. (May 7, 2020), <https://bostonreview.net/class-inequality-science-nature/erin-mcelroy-meredith-whittaker-genevieve-fried-covid-19-crisis> [https://perma.cc/7PN8-ZH6W].

¹⁷⁴ See SUSSKIND, *supra* note 60, at 88 (comparing “a comparative [versus] a transcendental framework for the analysis and pursuit of justice.”).