Governance ≠ Leadership: What Blockchain and AI Won't Do for Corporate Lawyers

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"It's about time the piano realized it has not written the concerto!"

-Lloyd Richards, playwright, to Margo Channing, actor, *All About Eve*, in reaction to the latter's diva tantrum at a rehearsal after she has learned that Eve Harrington will be her understudy.[1]

This is a contribution to the Journal of Corporation Law's 2020 symposium on blockchain technology and corporate governance. The thesis is that blockchain technology is well suited to the monitoring function in corporate governance; that monitoring as the primary function of corporate governance is a particularly legal conception; and that the business conception of governance has far more to do with leadership, strategy, and operations. If the legal and business conceptions of governance tend to be ships passing in the night (at least in this somewhat exaggerated rendering), it is because prevailing economic and legal theoretical models have a difficult time incorporating human qualities that underlie leadership, intuition, insight, and creativity. Law schools have long taught litigation skills and transactional skills have come into vogue as well. Teaching leadership to aspiring business lawyers is the next challenge.

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1. ALL ABOUT EVE (20th Century Fox 1950).

I. INTRODUCTION

I can identify the two most significant events in my career as a lawyer. The first was my transition, after having become a big firm partner, from full-time litigator to full-time transactional lawyer in 1989. The second was my move in 1992 to AlliedSignal Inc.,[2] ultimately to become the general counsel of the multi-billion-dollar automotive division. The year before, AlliedSignal had appointed Lawrence A. Bossidy, the long-time vice-chairman of General Electric, best friend and second-in-command to Jack Welch, as its new chairman and CEO.[3] The company's odd name was itself a reflection of its growth in the 1980s. An acquisitive CEO, Ed Hennessy, had caused the famous Allied Chemical Corporation to step in as a white knight in the highly publicized and botched takeover war that William Agee, the CEO of Bendix Corporation, had launched against Martin Marietta. Allied ended up owning Bendix and later acquired The Signal Companies, resulting in a conglomerate hodge-podge that ranged from jet engines to seat belts to athletic shoes.[4]

But it was a loosely organized confederation of fiefdoms not particularly committed to operational excellence. Hennessy was out, and Bossidy was to be the answer. He brought with him a commitment to the kind of leadership and organizational disruption that marked General Electric's vaunted managerial training programs.[5] One of the materials the headhunter firm sent me during my recruitment was AlliedSignal's 1991 glossy annual report (published just a few months earlier), containing Bossidy's first letter to the shareholders.[6] The theme was the reshaping of the company, one that would require leaders, not just competent managers, with a plausible shared vision and clearly expressed values making the business more competitive and successful and a more satisfying place to work.[7]

The passage that rocked me on my heels, however, was about teamwork:

> We need people who are willing to share their ideas, who listen to others, who want to participate and be involved in the process. Without question, there will always be a need for leaders who set priorities and make the final decisions. But, at every level, they must actively engage each employee in developing the thoughts and ideas that shape those decisions. The Lone Ranger, the autocrat in the corner office, the guy with all the answers need not apply.[8]

AlliedSignal had me with that last line. I had never felt like I had all the answers, but I had always believed it was incumbent on me to think that I did. I now attribute that to

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2. In 1991, the company's name was Allied-Signal, with a hyphen. Shortly thereafter, it officially eliminated the hyphen. In 1999, after I had left the company, AlliedSignal merged with Honeywell International, Inc. Although AlliedSignal was technically the surviving corporation, it changed its name to Honeywell International, reflecting its superior recognition as a brand name. AlliedSignal Inc., Amendment No. 1 to Form S-4 Registration Statement under the Securities Act of 1933, (July 22, 1999), https://sec.report/Document/0000950117-99-001506/ [https://perma.cc/83N7-DML8].

3. LARRY BOSSIDY & RAM CHARAN, EXECUTION: THE DISCIPLINE OF GETTING THINGS DONE 1–3 (2009).

4. Alan Gersten, *Analysts, Investors Approve Hennessy Resignation from Allied-Signal*, UPI (June 27, 1991), https://www.upi.com/Archives/1991/06/27/Analysts-investors-approve-Hennessy-resignation-from-Allied-Signal/3729503369710/ [https://perma.cc/F5ZQ-K469].

5. BOSSIDY & CHARAN, *supra* note 3, at 3.

6. ALLIED-SIGNAL INC., ANNUAL REPORT 1 (1991).

7. *Id.* at 2.

8. *Id.*

years of elite law school education and training and socialization as a big firm lawyer. Here instead was the express endorsement of a culture in which you could admit what you didn't know and your own need to learn. I don't want to suggest that it turned out to be corporate nirvana. The rhetoric almost always outdid the reality, both individually and organizationally. But it started me down the path of thinking, first as a corporate lawyer and leader, and later as a law professor, about the relationship of, and differences between, thinking like a lawyer, on one hand, and acting like a leader, on the other.

That is the jumping-off point for this reflection on the role of blockchain and other digital technologies in corporate governance. To make my point, I am going to propose a dichotomy between two approaches to governance that I concede is hyperbolic. But I don't think it is unfair, at least when discussing scholarly treatments. Certainly, the reality is far more nuanced. The legal approach to governance, and therefore governance-related technology, tends to the quotidian oversight tasks of monitoring, discipline, and corporate compliance. In contrast, the business approach tends to the affective aspect of governance—in a word, leadership. It focuses less on the directors' role in oversight and far more about how the directors will contribute to the strategic and operational success of the organization. As a result, business governance is far less concerned with the tools that are amenable to digitization, and far more concerned with human attributes that resist algorithmic reduction. The two approaches are often ships passing in the night, something I attribute to the very training and socialization of lawyers in which I participated. The upshot is that, in the spirit Lloyd Richards's bon mot to Margo Channing in *All About Eve*, when we think about tools like blockchain in corporate governance, we should be noting the difference between the piano and the concerto, the tool and craftsperson, the notes we play and the music we make, the techniques we use and the purposes for which we use them.

II. THE LEGAL CONCEPTION OF GOVERNANCE (HYPERBOLICALLY)

Professor Stephen Bainbridge's description of the usual functions and priorities of a corporate board of directors is typical of the orientation I have experienced among law professors who write and teach the subject. "First and foremost, the board monitors and disciplines senior management."[9] While "most boards have some managerial functions," commonly in "broad policymaking," and individual board members may advise and guide senior managers or provide access to business networks, "[a]mong these functions, however, the board's monitoring function reigns supreme."[10] That does not surprise me. Scholarly approaches to the monitoring take their cue from the way modern corporate law scholarship has incorporated prevailing economic models of the firm: (1) the "principal-agent" conception that addresses agency cost issues, i.e., the divergence of interests as between shareholder "principals" of the firm and its centralized manager-agents;[11] (2) the

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9. STEPHEN M. BAINBRIDGE, CORPORATE LAW 80 (3d ed. 2015).

10. *Id.*

11. The seminal work is Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavioral, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 305 (1976). Per Professor Bainbridge, the Jensen and Meckling agency cost problem "is now widely recognized as 'the fundamental concern of corporate law' and governance." Stephen M. Bainbridge, *The Board of Directors*, *in* THE OXFORD HANDBOOK OF CORPORATE LAW AND GOVERNANCE 279 (Jeffrey N. Gordon & Wolf-Georg Ringe eds., 2018).

"nexus of contracts," under which the firm is an imaginary construct in which every relationship can be characterized by way of an explicit or implicit contract;[12] and (3) the role of institutional structures in ameliorating management opportunism vis-à-vis the shareholders.[13]

Hence, in the (somewhat hyperbolic) legal conception of corporate governance, the core concerns are for risk, liability, and opportunism as between shareholders and management, particularly when it comes to the directors' fiduciary duty of care. Even before the advance of blockchain, sophisticated information technology like enterprise resource planning programs (SAP being one of the leading providers) that maintain and manage financial records and reporting has long been a staple of corporate management. And there has been no shortage in the last several years of scholarly paeans to blockchain as a major advance in the oversight and compliance aspects of corporate governance. While some commentators have noted its potential efficacy in mechanical processes like shareholder recordkeeping and voting, insider trading, corporate disclosures, and trade execution,[14] other theorists have speculated on the value it brings to controlling and monitoring the agency relationship between shareholders and management.[15]

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12. Jensen & Meckling, *supra* note 11, at 310–11; *see* Stephen M. Bainbridge, *In Defense of the Shareholder Wealth Maximization Norm: A Reply to Professor Green*, 50 WASH. & LEE L. REV. 1423, 1426–33 (1993) (characterizing nexus of contracts as consistent with prevailing neo-classical theories of the firm, under which the sole obligation of management ought to be maximizing the shareholders' allocation of corporate surplus after all other claims have been paid).

13. OLIVER E. WILLIAMSON, THE MECHANISMS OF GOVERNANCE 171–79 (1996).

14. *See, e.g.*, Mark Fenwick & Erik P.M. Vermeulen, *Technology and Corporate Governance: Blockchain, Crypto, and Artificial Intelligence*, 48 TEX. J. BUS. L. 1, 3–10 (2019) (assessing digital technology and specifically blockchain as it affects corporate governance through "amplification," "decentralization," and "retrofitting"; examples include various transparency and principal-agent issues like verification of ownership structures, simplifying trade executions, streamlining voting, maintaining stock ledgers; speculates on the use of machine learning to select board members); Wonnie Song, *Bullish on Blockchain: Examining Delaware's Approach to Distributed Ledger Technology in Corporate Governance Law and Beyond*, 8 HARV. BUS. L. REV. ONLINE 9, 17 (2017) (blockchain as a method of creating and maintaining corporate records, stock ownership and transfer records, and voting structures); Anne Lafarre & Christoph Van der Elst, *Blockchain Technology for Corporate Governance and Shareholder Activism* 13 (ECGI, Working Paper No. 390/2018, 2018), http://ssrn.com/abstract_id=3135209 [https://perma.cc/8CHV-MPN7] (how to improve efficiency of annual general meetings of shareholders and enhance participation through blockchain); Fiammetta S. Piazza, *Bitcoin and the Blockchain as Possible Corporate Governance Tools: Strengths and Weaknesses*, 5 PENN ST. J.L. & INT'L AFF. 262, 262 (2017) (suggesting neither bitcoin nor blockchain will be helpful for accounting or ownership reporting purposes but blockchain could be useful for corporate voting); David Yermack, *Corporate Governance and Blockchains*, 21 REV. FIN. 7, 7 (2017) (evaluating implications of lower cost, greater liquidity, more accurate record-keeping, and transparency of ownership when managed through blockchain; potentially changing power relationships among managers, institutional investors, small shareholders, auditors, and other parties involved in corporate governance).

15. Wulf A. Kaal, *Blockchain Solutions for Agency Problems in Corporate Governance*, *in* INFORMATION FOR EFFICIENT DECISION MAKING: BIG DATA, BLOCKCHAIN AND RELEVANCE 313 (Kashi R. Balachandran ed., 2020).

> Blockchain offers unprecedented solutions for agency problems in corporate governance. Supervisory tasks that were traditionally performed by principals to control their agents can be delegated to decentralized computer networks that are highly reliable, secure, immutable, and independent of fallible human input and discretionary human goodwill. Blockchain technology provides an alternative governance mechanism that eliminates agency costs—the principal's cost of supervising agents—by creating trust in the contractual relationship between the principal and the

Recently, Joan MacLeod Heminway and Adam J. Sulkowski surveyed the impact of blockchain technology adoptions on shareholder recordkeeping and voting, insider trading, and disclosure-related considerations.[16] Joan Heminway is a far too experienced and savvy real lawyer (i.e., not just an academic) to think that record-keeping and disclosure is all there is to the effective corporate lawyering game. Hence, this observation at the end:

> This leads us to a final reflection on conceptualizing the role of attorneys in the blockchain era as including a vital mediating function. While we do not all need to become programmers, and while some legal professionals' roles could be automated, there is a key higher-order function that attorneys should appreciate and embrace. That role is to better understand the human values and interests of clients and other stakeholders and, in the words of Nick Szabo, to help translate the "wet code" of human norms into the "dry code" of software.[17]

That is a fitting segue to the distinction between governance and leadership. The former might well be translatable into the dry code of software. I will suggest, however, that there are aspects of leadership consisting of human capabilities (if not norms) that no code, not even blockchain, can replicate.

III. THE BUSINESS CONCEPTION OF GOVERNANCE (HYPERBOLICALLY)

Before getting to that, however, let's review what corporate governance looks and sounds like if you aren't a lawyer but a businessperson.

One would think, if the board's monitoring function reigns supreme, lawyers and auditors would dominate. The 2019 U.S. Spencer Stuart Board Index says otherwise.[18] In 2019, lawyers represented one (1%) percent of both first-time and experienced directors, one (1%) percent of independent directors, two (2%) percent of named lead or presiding directors, and five (5%) percent of nominating/governance committee chairs. Retired public accounting executives or partners fared little better, representing four (4%) percent of first-time directors, two (2%) percent of experienced directors, three (3%) percent of independent directors, two (2%) percent of named lead or presiding directors, and one (1%) percent of nominating/governance committee chairs.

Rather, the overwhelming majority of first-time, experienced, independent, lead, presiding directors, and nominating/governance committee chairs had strategic, operating, or financial backgrounds. Forty-six (46%) percent of new directors in 2019 were active or retired CEOs, presidents or COOs, line or functional leaders, or division or subsidiary presidents (compared to sixty-two (62%) percent of experienced directors with similar backgrounds). Another fourteen (14%) percent of new directors were financial executives, CFOs, or treasurers (compared to nine (9%) percent of similarly experienced directors).

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agent.

Id.

16. *See generally* Joan MacLeod Heminway & Adam J. Sulkowski, *Blockchains, Corporate Governance, and the Lawyer's Role*, 65 WAYNE L. REV. 17 (2019) (presenting their survey).

17. *Id.* at 53.

18. SPENCER STUART, 2019 U.S. SPENCER STUART BOARD INDEX (2019), https://www.spencerstuart.com/-/media/2019/ssbi-2019/us_board_index_2019.pdf [https://perma.cc/32AX-LH2L]. I have summarized the relevant data in Appendix A. Please refer to Appendix A for the statistical data.

The remaining backgrounds were spread among investors, investment managers, bankers, academics, nonprofit executives, investment bankers, and consultants. Similar percentages held when looking at independent directors, lead and presiding directors, and even nominating/governance committee chairs.

If you were a lawyer and considered yourself a first-rate provider of corporate monitoring and discipline, would you be attractive as a potential board member? A brief review of advice to aspiring directors from coaches and recruiters suggests otherwise as well. According to Olga Mack, a specialist in advising prospective directors (especially women), the key attributes of good directors are passion, experience, time, attentiveness, toughness and collegiality, highest-level integrity, good judgment and confidentiality, strategic thinking, preparation, enthusiasm for learning and service, knowledge, and an eye for diversity.[19] The key skills align with those attributes: passion for a company, its mission, products, services, and industry; being an effective decision maker; capability of innovative thought leadership; staying active in field or industry; long-term strategic thinking; impeccable judgment, wisdom, and integrity; diverse and relative skills and experience; and interpersonal skills and collaborative personality.[20] Another guide to becoming a corporate director lists these attributes of "an effective and influential director:" emotional intelligence, commitment, equanimity, preparedness, mindful impact, bravery, dispassionate passion, and discernment.[21]

Recruitment of board members is a mainstay of the large headhunting firms. Korn Ferry's description of its Board and CEO Services practice does not highlight the attributes for monitoring and discipline. Rather, the focus is on strategy and operations:

> Critical to the success of the CEO and the organization is a board of directors with *the competencies and intellectual capital to address the toughest strategic and operational challenges*. . . . We work closely with boards to understand strategy, culture, and composition, then partner with our colleagues with deep industry expertise – including diversity, cyber, technology, and finance – to identify the ideal mix of candidates.[22]

Russell Reynolds is also explicit about the relationship of strategic and monitoring functions of board members.

> We find directors who go beyond asking probing, penetrating questions—and advise boards on how to work most effectively as a team and with executive management. With greater regulatory scrutiny and raised expectations regarding risk management, *most companies are looking for the board to offer more than compliance oversight. Directors need to be able to advise CEOs on the substance of strategic decisions, providing thoughtful, actionable guidance on how to effectively translate strategy into action.* The best directors ask probing, penetrating questions and, when necessary, act when the standards of governance

19. OLGA V. MACK, GET ON BOARD: EARNING YOUR TICKET TO A CORPORATE BOARD SEAT 53–54 (2019).

20. *Id.* at 55–57.

21. PAUL SMITH, RIGHT SEAT RIGHT TABLE: AN OUTSIDER'S GUIDE TO SECURING THE IDEAL BOARD ROLE 132–37 (2019).

22. *Board and CEO Services*, KORN FERRY, https://www.kornferry.com/solutions/talent-acquisition/board-and-ceo-services [https://perma.cc/8SUF-JZP8] (emphasis added).

and fiduciary responsibility require intervention.[23]

Finally, the non-legal scholarship on director competencies also focuses on attributes having far more to do with strategic and operational leadership than monitoring and discipline. Those attributes include, among others, taking responsibility, communicating and building relationships, and ethical conduct, strategic focus, negotiating and debating, and empowering others;[24] intent, drive, ownership mindset, knowledge of the business and its value drivers, courage to rock the boat, insistence on clarity of value drivers and related information flow, engagement, willingness to hold management accountable;[25] and the ability to function as a member of a team.[26]

IV. BLOCKCHAIN, AI, GOVERNANCE, AND LEADERSHIP

Nick Szabo's comment about the translation of wet codes of human norms into the dry codes of software is intriguing. I have said that the logical essence of pure lawyering is similar if something short of dry code. Completely dry code is computable; the essence of pure lawyering is perhaps "damp" code. That is because pure lawyering is the process of translating real-life narratives with all their complexity and analog fuzziness into structures of first-order logic that achieve a client's purpose. Indeed, there is enough logical (if not computational) structure to the core of legal analysis for some futurists to contemplate the idea of artificial intelligence or machine learning as substitutes for human thinking in more and more of a lawyer's professional functions. In a book and a series of articles, I have explored that possibility by considering the nature of and limits to legal thinking, and the extent to which computation can substitute for what a lawyer does.[27] So, as we think about the role of blockchain in corporate governance, it hardly surprises me that analogs to the logical or computational *tools* of lawyering are the focus. What blockchain or any other code is unlikely ever to acquire is the ability to perceive purpose and have the will to act. It is unlikely to evolve leadership, intuition, insight, creativity, and

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23. *Board Directors and Chief Executive Officers*, RUSSELL REYNOLDS ASSOCS., https://www.russellreynolds.com/expertises/board-directors-and-chief-executive-officers [https://perma.cc/9TW9-GMAM] (emphasis added).

24. Welna Boshoff et al., *Board Member Success: The Development of a Director Competency Framework*, 28 MGMT. DYNAMICS 2 (2019).

25. Henry D. Wolfe, *What Does it Take to Be a Great Director?*, CORP. COMPLIANCE INSIGHTS (July 16, 2019), https://www.corporatecomplianceinsights.com/leadership-qualities-board-of-directors/ [https://perma.cc/UJ7S-SUNT].

26. Maarten Vanderwaerde et al., *Board Team Leadership Revisited: A Conceptual Model of Shared Leadership in the Boardroom*, 104 J. BUS. ETHICS 403, 403 (2011); G. Tyge Payne et al., *Corporate Board Attributes, Team Effectiveness and Financial Performance*, 46 J. MGMT. STUD. 704, 704 (2009); Jianyun Tang et al., *Dominant CEO, Deviant Strategy, and Extreme Performance: The Moderating Role of a Powerful Board*, 48 J. MGMT. STUD. 1479, 1479–80 (2011).

27. JEFFREY M. LIPSHAW, BEYOND LEGAL REASONING: A CRITIQUE OF PURE LAWYERING 32–47 (2017) [hereinafter LIPSHAW, BEYOND]; Jeffrey M. Lipshaw, *Halting, Intuition, Heuristics, and Action: Alan Turing and the Theoretical Constraints on AI-Lawyering*, 5 SAVANNAH L. REV. 133, 147–54 (2018) [hereinafter Lipshaw, *Halting*]; Jeffrey M. Lipshaw, *The Persistence of "Dumb" Contracts*, 2 STAN. J. BLOCKCHAIN L. & POL'Y 1, 31–38 (2019) [hereinafter Lipshaw, *Dumb Contracts*]; Jeffrey M. Lipshaw, *Lawyering Somewhere Between Computation and the Will to Act*, *in* CAMBRIDGE HANDBOOK OF LAWYERING IN THE DIGITAL AGE (Larry A. DiMatteo et al. eds., forthcoming 2021) (https://papers.ssrn.com/sol3/papers.cfm?abstract_id =3432635) [https://perma.cc/329X-USLC] [hereinafter Lipshaw, *Lawyering Somewhere*].

the subjective desire to change the objective world.[28] But those qualities are as essential as the quotidian tools to effective corporate governance and corporate lawyering in the real world.[29]

I want to contrast therefore two conceptions of governance (and the role of lawyers in it), again in the hyperbolic spirit of this essay. The first is one familiar to lawyers and particular academic lawyers who see governance through an economic and legal-tinted lens. Both economics and law are models by which we can explain and organize human behavior. The essence of a model is that it seeks to capture the key elements of some other aspect of reality in fewer bits and bytes of information than the reality itself. A map of Boston would be useless if it contained every bit of the reality that is Boston. Neo-classical economics models behavior with mathematical formulae—e.g., the prediction of price and output at the intersection of marginal cost and marginal utility curves.[30] Transaction cost economics is less concerned with price and output equilibria but still models the impact of institutions that ameliorate opportunism.[31] The discipline of law, at least in the corporate and commercial arena, does so by the expression of linguistic constitutive and regulative rules—articles of incorporation, bylaws, and resolutions that permit the creation of organizations, or contracts that capture the transfer of a business entity from one owner to another. All those models, by necessity, are reductions from the complexity of the real world.

This modular and reductive view of the world is at the heart of the recent proposal from Stephen Bainbridge and Todd Henderson that the current system of shareholder-elected boards be replaced by one in which a separate firm, in their coinage a "board service provider" or "BSP," performs the board function.[32] The book confirms my admittedly hyperbolic dichotomy. First, the proposal sees the board's monitoring function as primary. While acknowledging that the three main categories of board activity—management, oversight, and service—can blend into each other, the monitoring function has become, at least since the late 1990s, "job one."[33] That is wholly consistent with Professor Bainbridge's often expressed *legal* conception of the board's obligation: in short, the board's unique duty in the nexus of contracts is to transact with the other constituencies in the interest of maximizing the shareholders' wealth, and a modular board could perform that duty just as well.[34]

Second, and more fundamentally, their thesis is typically academic and typically lawyerly in resting on those economic and legal reductions from the complexity of the real world. To be clear, Professor Bainbridge himself acknowledged that the nexus of contracts is incomplete as a theory of how people actually relate to one another within a firm. He proffers it instead as a putatively helpful explanatory metaphor in the same way Judge

28. For a detailed discussion of this point, see Lipshaw, *Lawyering Somewhere*, *supra* note 27, at Section II.E.

29. *Id.* at Section II.F.

30. RICHARD A. POSNER, ECONOMIC ANALYSIS OF LAW 3–10 (6th ed. 2003).

31. OLIVER E. WILLIAMSON, THE ECONOMIC INSTITUTIONS OF CAPITALISM 30–35 (1985).

32. STEPHEN M. BAINBRIDGE & M. TODD HENDERSON, OUTSOURCING THE BOARD: HOW BOARD SERVICE PROVIDERS CAN IMPROVE CORPORATE GOVERNANCE (2018).

33. *Id.* at 45–48.

34. Bainbridge, *supra* note 12, at 1433–34.

Posner views theoretical economic models.[35] Even so, the idea of the outsourced board seems to me typical of an admittedly hyperbolic characterization of a lawyer's approach to governance. My personal experience tells me that *legal* conception misses something about the leadership role of the board; indeed, that the corporation as a firm is something more than the sum of its parts.

Moreover, I often wonder about the empirical bona fides when legal theorists make broad assertions about how things work in the real world—are they claiming it is an accurate description or are they projecting their own presuppositions, heuristics, and biases? For example, their prime illustrative example of monitoring (i.e., agency) costs involves how to dispose of an unexpected $50 million profit in the last quarter. The CFO wants to distribute to the shareholders; the CEO hungers for a new larger and faster corporate jet that just happens to cost $50 million. Bainbridge and Henderson ask, "Does anybody doubt that many—if not most—CEOs would opt for the jet?"[36] Yes, I do! My casual empiricism is at least as valid, and I suspect many or most CEOs would do the right thing, whatever the right thing was. Or at least, I am not willing to assume for the sake of justifying the primacy of the monitoring function that they are either neo-classical rational automatons or transaction cost economics opportunists with guile.

The point is that the caricature of management as the Monopoly man, proffered by scholars as sophisticated as Professors Bainbridge and Henderson, justifies my equally broad characterization of the legal view of governance as a quest for reduction and codification. Legal academics struggle with the *practice*, the inner game, of intuition or leadership (as opposed, perhaps, to their study as behavior) precisely because that practice resists theory. As I have argued elsewhere, "[i]f we combine algorithmic intelligence with behavioral psychology, the holy synergy is, whenever possible, to find an algorithm, a program, a machine that will take human heuristics and biases out of the problem-solving loop."[37] Perhaps not blockchain, but would some kind of algorithmic governance mollify intuition skeptics like Daniel Kahneman ("Whenever we can replace human judgment by a formula, we should at least consider it"[38]) or legal reductionists like Harvard contract law theorist Robert Scott (condemning "lazy thinking masquerading as theory" or resort to the intuition of the "wise man"[39])?

In fairness, law and economics, depending as they do on neo-classical rationality or opportunism with guile, have a hard time capturing the human qualities that would lead a CEO not to buy the new jet simply because it was the right thing to do. For example, Oliver Williamson, the father of New Institutional Economics, looked askance at "trust" because it was so elusive for modeling purposes.[40] He thought what we perceive as such in commercial relationships—for example, shareholders' trust in corporate management—is

35. Stephen M. Bainbridge, *Contractarianism in the Business Associations Classroom:* Kovacik v. Reed *and the Allocation of Capital Losses in Service Partnerships*, 34 GA. L. REV. 631, 644 (2000).

36. BAINBRIDGE & HENDERSON, *supra* note 32, at 43.

37. Lipshaw, *Lawyering Somewhere*, *supra* note 27, at 3.

38. DANIEL KAHNEMAN, THINKING, FAST AND SLOW 233 (2011).

39. Jeffrey M. Lipshaw, *Contract as Meaning: An Introduction to "Contract as Promise at 30"*, 45 SUFFOLK U. L. REV. 601, 605–06 (2012).

40. Oliver E. Williamson, *Calculativeness, Trust, and Economic Organization*, 36 J.L. & ECON. 453, 463–64 (1993).

"simply calculated risk."[41] Thus "[traditional] trust, if it obtains at all, is reserved for very special relations between family, friends, and lovers."[42] His model deals in deliberative choice based on calculation. Trust cannot be so modeled because it is unobservable, not measurable, or not capable of being reduced to a mathematical function.

All that contrasts with what the academic and practical business literature, noted above, says about the attributes that a board member should possess. My thesis is that there is indeed some set of human qualities affecting governance not captured by the economic and legal models and thus, *a fortiori*, certainly not capable of being expressed in blockchain or any other dry or damp code. The academic and practical literature on leadership certainly reflects that. Richard Posner, perhaps the most influential importer of economics into the analysis of law, argued that the discipline aspired to scientific *explanation*, hence deliberately putting aside the "full complexity, richness, and confusion" of the real world phenomena precisely because descriptive completeness would not constitute a theory but merely a description.[43] Contrast that with an observation about the methodology of leadership studies: "The central characteristic of ethnographic enquiry is the researcher's detailed observation of how work – in this case 'leadership' work - actually 'gets done'. It focuses on the circumstances, practices and activities that constitute the 'real world', situated character of leadership work and a 'thick description.'"[44]

The limits of theoretical modeling are similarly apparent in the seminal work of Gary Klein, who has studied "how people use their experience to make decisions in field settings."[45] Klein observed what he calls "naturalistic"[46] or "intuitive"[47] decision-making, which "is based on accumulated and compiled experiences."[48] He acknowledges the need to balance intuition with rational analysis but contends that "rational analysis can never substitute for intuition."[49] The result is "a sense of awe and appreciation about the insights we create and the discoveries we make."[50] Indeed, a reference to the Tao of leadership is not so far-fetched. There is truth in at least one observation that Western thinking fails to come to terms with leadership because it roots the concept (a) "in a cultural framework, ultimately theological in origin, based on the inevitability and desirability of hierarchy and control," and (b) "as a noun, a reifiable object or thing that can be dissected and examined much as one would with any other object in the environment such as a table, leading us to expect a relatively simple set of specifications for application."[51] Eastern thought, in

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41. *Id.*
42. *Id.* at 484.
43. POSNER, *supra* note 30, at 17.
44. Marian Iszatt White et al., *"Following the Leader": Ethnography, Ethnomethodology and Educational Research*, CTR. FOR EXCELLENCE LEADERSHIP 1, 1 (2004), https://www.researchgate.net/publication/228729528_'Following_The_Leader'_Ethnography_Ethnomethodology_and_Educational_Research [https://perma.cc/T2DN-PMFE] (citing Clifford Geertz, The Interpretation of Cultures: Selected Essays (1973)).
45. GARY KLEIN, SOURCES OF POWER: HOW PEOPLE MAKE DECISIONS 1 (1998).
46. *Id.* at 4.
47. GARY KLEIN, THE POWER OF INTUITION xiv–xv (2003).
48. *Id.* at 5.
49. *Id.*
50. GARY KLEIN, SEEING WHAT OTHERS DON'T: THE REMARKABLE WAYS WE GAIN INSIGHTS 98 (2013).
51. Lesley Prince, *Eating the Menu Rather than the Dinner: Tao and Leadership*, 1 LEADERSHIP 105, 105–06 (2005).

contrast, as for Taoists, see leadership "as a fluid set of interrelations co-ordinated with and within a natural order that is outside our immediate control but of which we are an intimate part."[52] That is almost certainly too mushy for the likes of economists and most legal theorists, but that is the point. The Taoist treatment of leadership "emphasizes direct experience, eschewing intellectual theorizing and actively challenging the worth of language and other intellectualisms for aiding understanding."[53] The author concedes her paper is really "an attempt to examine the ineffable by means of the inscrutable; looking at a concept that has resisted easy definition by means of a tradition that repudiates words – as Alan Watts puts it, eating the menu instead of the meal."[54]

V. COMPOSERS, CONCERTOS, AND PIANOS

I return to my allusion from the epigraph: in our merited enthusiasm for the possibilities of blockchain and even more sophisticated iterations of artificial intelligence, we ought not forget that we human lawyers are the authors of the concerto, and the tools are the piano. I started on a personal note and I will conclude on one. Ben Heineman was an extraordinary lawyer before he got to General Electric and, at GE, created the model of the modern in-house law department.[55] At AlliedSignal, Larry Bossidy hired Peter Kreindler to do what Heineman had done at GE.[56] And Peter hired me. Hence, I both lived and take seriously what Heineman had to say about lawyers and leadership:

> Leadership demands important qualities of mind that go beyond the core competencies taught in law schools. We need lawyers who can create and build, not just criticize and deconstruct. Lawyers must be able to ask and answer "what ought to be" questions, not only "what is" questions—and in their answers they must respect the tensions between competing values that are inherent in most important decisions. Lawyers should consider ethics in addition to law when making recommendations or decisions; lawyers should learn inter-disciplinary risk assessment and how to take considered risks; and lawyers should work cooperatively and constructively on teams composed of members from other disciplines, vocations, and cultures.
>
> Lawyers should be able to build and lead organizations. They should be able to develop the vision, the values, the priorities, the strategies, the people, the processes, the checks and balances, the resources, and the motivation. Team participation and team leadership are interconnected: leadership today is often not command and control but persuasion and motivation and empowerment of

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52. *Id.* at 106.

53. *Id.*

54. *Id.* (citing ALAN W. WATTS, THE WAY OF ZEN 13 (1962)).

55. Among other things, he was the Editor-in-Chief of the Yale Law Journal, a law clerk to Justice Potter Stewart, and the Assistant Secretary for Planning and Evaluation at the U.S. Department of Health, Education, and Welfare. *See* Ben W. Heineman, Jr., *Lawyers as Leaders*, YALE L.J. (Feb. 16, 2007), https://www.yalelawjournal.org/forum/lawyers-as-leaders [https://perma.cc/2WW6-RJNY].

56. Peter's resume was no less impressive: Articles Editor for the Harvard Law Review; law clerk to Irving R. Kaufman of the U.S. Second Circuit Court of Appeals and to Justice William O. Douglas; Executive Assistant and counsel to the Watergate Special Prosecution Force; Partner at Arnold & Porter and Hughes, Hubbard & Reed.

teams around a shared vision.[57]

Blockchain is so obviously a record-keeping tool that it is equally obvious I am, in the interest of my hyperbolic distinction, knocking down a straw person. The real Kool-Aid® drinking is more likely to occur with artificial intelligence tools that aid in more sophisticated decision making. For purposes of this short essay, I refer the reader to my earlier writing on this point and the admonitions of others who have thought deeply about the differences between digital and biological brains.[58] Even the most impressive AI demonstrations "share a common quality that John McCarthy [the Turing Award winner who developed the AI LISP programming language[59]] and others have repeatedly pointed out: they are 'brittle' in the sense that, if pressed around the edges, they tend to 'crack.' In other words, the programs lack commonsense knowledge and reasoning—they do not 'know' their own limitations."[60] Hence, the observation that "[t]his unending compounding of exceptions comes close to revealing the true nature of the brittleness problem, which is that no amount of anticipation, planning, and programming can ever enumerate, *a priori*, all the variants of even a routine situation that may occur in daily life."[61] The essence of the law school core competencies to which Ben Heineman subscribes are at best a form of damp code; dealing with the wholly unexpected involves not only the tools of governance, but also the qualities of mind that allow for leadership.

I conclude with a hypothetical, the question for which is, "What would Heineman do?" Assume Alpha Corporation and Beta Corporation, both public companies, have negotiated a friendly merger. Beta will be the acquirer. Each Alpha shareholder will receive 1.832 shares of Beta common stock in exchange for one share of Alpha common stock, the total market value of which on the closing date is expected to be about $3 billion. The shareholders of both Alpha and Beta are required to approve the merger. Because it is issuing securities that will be the consideration for the merger, Beta has filed a registration statement on Securities and Exchange Commission Form S-4. None of the Alpha senior executives will continue with the merged company. Several Alpha's officers have "change in control" agreements that provide for additional benefits to be paid if they are terminated because of a merger like the one disclosed in the Form S-4. The Form S-4 must set forth the details of those agreements. Assume that the lawyers for Alpha and Beta have duly included those disclosures, the shareholders of both companies have approved the merger, the SEC has permitted the S-4 to become effective, all other conditions of closing have been satisfied, and the companies have set the closing date as March 31.

On March 30, Kim, one of the partners of Silk & Stocking, outside counsel for Alpha, calls Ashley, Alpha's general counsel (who also happens to be one of Alpha's officers, herself with a change in control agreement that the acquisition will trigger). Kim advises Ashley that the Silk & Stocking lawyers have continued reviewing documents in anticipation of the closing and have discovered a problem. The Alpha change in control agreements provide that the affected officers are entitled not simply to cash in their vested

57. Heineman, *supra* note 55.

58. Lipshaw, *Halting*, *supra* note 27, at 156.

59. Daniel C. Dennett, *When Philosophers Encounter Artificial Intelligence*, 117 DAEDALUS 283, 283 (1988).

60. George N. Reeke, Jr. & Gerald M. Edelman, *Real Brains and Artificial Intelligence*, 117 DAEDALUS 143, 149 (1988).

61. *Id.* at 152.

and unvested stock options at the market price after the closing, but are entitled to be compensated for the difference between that price and the highest market price of the common stock between the public announcement of the merger and the closing date. The provision was so obscure that none of the affected officers, including Ashley, even knew they had the benefit. As a result of a good faith oversight, the S-4 did not include disclosure of that provision. In aggregate, the amount in question for all the affected officers is over $2,000,000. Ashley's own benefit would be about $200,000. In the view of Kim and her partners, even if the amount is not material in relation to the total consideration for the merger, the fact that it affects the senior officers of Alpha negotiating and recommending the deal to the shareholders, makes it so. Hence, going forward with the closing the next day would be problematic under the federal securities laws. And Beta's lawyers are not yet aware of the problem.

Ashley immediately calls Chris, Alpha's chief executive officer, and describes the issue. Chris convenes a teleconference of almost all the affected officers. Sam, one of the vice presidents, asks, "Is it correct that I should receive an additional $300,000 because of that provision? Why should I give that up?" Ashley responds, "Yes, that is literally what the agreement says. The problem, Sam, is that the S-4 did not disclose it, and our outside lawyers are telling us that to amend the filing we would have to delay the closing for what would be at least a few weeks." Chris, who would receive an additional $500,000, says, "Wow, that is a lot of money. What are we going to do about it?" What would Heineman do? If you were Ashley, what would you do? Pause for a moment and think about it before reading the next paragraph.

Here is what I think should happen, consistent with Heineman's description of the qualities of mind that go beyond core competencies taught in law school. Ashley would say to Chris, "Do you mind if we go offline and talk about this for a few minutes?" In that conversation, Ashley would say words to the effect of the following:

> In my view, Kim and her firm are absolutely right: we expose everyone to securities claims. And we cannot go forward without notifying Beta. We cannot delay the closing. Additional time means additional deal risk. The purpose of the delay would not be to benefit the shareholders but to benefit the officers. The crazy thing is that an hour ago, Sam and the others didn't even know they had the money coming. Here's the solution. If every affected officer signs a waiver giving up the benefit in the next hour, the non-disclosure becomes immaterial and the closing goes forward. We get each officer to sign, and then we notify Beta both of the problem and the solution as a fait accompli.
>
> This is the moment in which you and I, but particularly you, need to exercise leadership among the group. We are going to have to acknowledge the competing risks and benefits, consider our ethical obligations, and persuade anybody who is a resister that they cannot hold up the closing of the deal.

Over the next hour or so, that is exactly what would happen, and the Alpha-Beta merger would close on March 31.

The irony is that the hypothetical highlights precisely the agency cost issue between centralized managers and passive shareholders that Jensen and Meckling described and that legal scholars cite as the theoretical basis for the monitoring function. Ashley's reaction, as a member of the management team and beneficiary of the change in control agreement, is probably neo-classically irrational. On the other hand, her conclusions as a lawyer are consistent with her obligation to the enterprise as a whole. The same set of antecedent conditions has the potential for two wholly divergent consequences: act in favor of management or act in favor of the shareholders. For purposes of this short and hyperbolic essay, I will simply say that Ashley's ability to opt for the latter course is particularly human and resistant to algorithm for the reasons captured by F. Scott Fitzgerald's famous dictum: "The test of a first-rate intelligence is the ability to hold two opposed ideas in mind at the same time, and still retain the ability to function."[62] I do not know if that is because (a) human brains have the inherent ability, unlike code, to generate two divergent outputs from the same input,[63] or (b) human brains are able to create meaning, "to learn about, make decisions about, and develop consequences for [one's] situation, especially [one's] mental and social reality, through events in a blend [of influencing conceptions] that sometimes, for one reason or another, cannot or will not in fact be real."[64] I do suspect it has something to do with the kind of leadership that law schools heretofore have not generally taught, and which legal academics have not generally studied.

VI. CONCLUSION

Great business lawyers, both inside the corporate world and in law firms, practice Heineman's vision all the time. What we do in the management suites and boardrooms of corporations, as officers, directors, and lawyers, is both science and art. Blockchain, as well as enterprise resource planning or decision-theory software or science fiction worthy tools not yet designed, are part of the science. Indeed, like legal doctrine itself—the damp code we use to achieve our ends—they are all instruments to be wielded by the artist. Law schools have long taught and nurtured litigation skills. Teaching transactional skills has come into vogue over the last ten years or so. Perhaps the next step is a focus on leadership for aspiring business lawyers. Why not? We are the artists, and we write the concerto.

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62. F. SCOTT FITZGERALD, THE CRACK-UP 69 (Edmund Wilson ed., New Directions Books 1993).

63. Lipshaw, *Dumb Contracts*, *supra* note 27, at 47–52.

64. LIPSHAW, BEYOND, *supra* note 27, at 254 (quoting MARK TURNER, COGNITIVE DIMENSIONS OF SOCIAL SCIENCE: THE WAY WE THINK ABOUT POLITICS, LAW, AND SOCIETY 44 (2001)).

APPENDIX A

New Director Professional Backgrounds: First-Time versus Experienced Directors[65]

	First-time directors			Non-first-time directors		
	Active #	Retired #	Total %	Active #	Retired #	Total %
CEOs	7	0	6%	56	63	38%
Chairs/presidents/COOs/VCs	5	2	6%	10	6	5%
Line and functional leaders	22	9	26%	7	23	10%
Financial executives/CFOs/treasurers	12	5	14%	5	22	9%
Division/subsidiary presidents	8	2	8%	12	17	9%
Investors/investment managers	10	0	8%	23	8	10%
Academics/nonprofit executives	6	1	6%	8	3	4%
General counsel	1	1	2%	1	2	1%
Consultants	1	0	1%	14	0	4%
Lawyers	1	0	1%	2	0	1%
Bankers/investment bankers	3	6	8%	2	11	4%
Public accounting executives	1	4	4%	0	6	2%
Other	4	7	9%	8	5	4%
Total	81	37	100%	148	166	100%

New Independent Director Professional Backgrounds[66]

	Year		
	2019	2014	2009
Active CEOs	15%	18%	19%
Retired CEOs	15%	17%	11%
Line and functional leaders	14%	14%	13%
Financial executives/CFOs/treasurers	10%	7%	5%
Investors/investment managers	9%	6%	9%
Division/subsidiary presidents	9%	9%	8%
Bankers/investment bankers	5%	4%	3%
Academics/nonprofit executives	4%	4%	8%
Active chairs/presidents/COOs	3%	4%	7%
Consultants	3%	2%	3%
Public accounting executives	3%	3%	1%
Retired chairs/presidents/COOs	2%	2%	6%
General counsel	1%	n/a	n/a
Lawyers	1%	2%	2%
Other	6%	8%	5%

65. SPENCER STUART, *supra* note 18, at 12.

66. *Id.* at 13. The public accounting executives were all former partners or executives. "Other" included former government employees, physicians, and private company owners.

Lead and Presiding Director Backgrounds (n = 363 identified by name)[67]

Retired CEOs/chairs/vice chairs/presidents/COOs	47%
Investors/investment managers	12%
Other corporate executives	9%
Active CEOs/chairs/vice chairs/presidents/COOs	9%
Bankers/investment bankers	6%
Financial executives/CFOs/treasurers/public accounting executives	6%
Academics/nonprofit executives	4%
Consultants/others	3%
Lawyers	2%

Nominating/Governance Committee Chair Backgrounds (listed in proxies)[68]

Active CEOs/chairs/vice chairs/presidents/COOs	8%
Retired CEOs/chairs/vice chairs/presidents/COOs	34%
Other corporate executives	14%
Financial backgrounds	24%
Financial executives/CFOs/treasurers	4%
Bankers/investment bankers	5%
Investors/investment managers	14%
Public accounting executives	1%
Academics/nonprofit executives	7%
Consultants	6%
Lawyers	5%
Others	3%
Total number of chairs listed in proxies	490

67. *Id.* at 24.
68. *Id.* at 28.