# The "Unmediated" and "Tech-driven" Corporate Governance of Today's Winning Companies

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Recent corporate governance initiatives encourage a culture of long-term value creation and growth but cannot work as intended by policymakers. The current discussion about corporate governance ignores the transition from a centralized to a decentralized, unmediated, and interconnected world and from a world of vertical hierarchies to a world of horizontal, open, and autonomous networks. This transition process was initiated and is increasingly accelerated by rapid technological change, including developments in social media, blockchain-based smart contracts, decentralized autonomous organizations, big data, and artificial intelligence. This paper shows how policymakers, regulators, business people, consultants, and other corporate governance experts can re-conceptualize corporate governance in a technology-driven and interconnected world.

***Keywords*: Algorithms, Artificial intelligence, Big data, Blockchain, Board of directors, Communication, Corporate Culture, Corporate Governance, Decentralization, Decentralized autonomous organization, Dialogue, Platform company, Social media, Stewardship codes, Technology, Trust**

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## I. Introduction

Successful companies today share several common characteristics. They focus on building and maintaining their relevance in the digitized and networked marketplace. This requires such companies to design and re-design products or services that constantly deliver a personal, meaningful, relevant, and/or satisfying experience for consumers.[1] More competitive companies embrace unmediated and technology-driven corporate governance practices in their efforts to create and maintain relevancy.

The use of data and algorithms will distinguish the successful companies of the future. Algorithmically-driven companies use new and emerging technologies to gather data from their consumers about their behavior and then instantaneously utilize this information to improve the consumer experience.[2] A majority of the thirteen S&P 500 companies that showed an above average revenue growth over the last five years use data and algorithms extensively.[3] These companies have become the main revenue and value generators, which usually leads to a higher market value per dollar of physical assets. The application of pattern recognition algorithms to large quantities of data also means that high market value can be created with relatively few employees. Indeed, algorithms replace middlemen, leading to flatter, unmediated organizations in which a best-idea-wins culture prevails.

Several disruptive startup companies, including Uber and Airbnb, have assumed the role of algorithmic middlemen. These companies have decentralized the transportation and hospitality

[1] *See, e.g.*, Patrick Newberry, *Experience Design: When Innovation Isn't Enough*, WIRED (Mar. 2014), https://www.wired.com/insights/2014/03/experience-design-innovation-isnt-enough/; Martin Zwilling, *It's Time to Design Human Experiences, Not Just Products*, FORBES (Dec. 24, 2015, 12:28 PM), https://www.forbes.com/sites/martinzwilling/2015/12/24/its-time-to-design-human-experiences-versus-products/#3d22f0d47376.

[2] In a presentation at the *DLD* (Digital Life Design) 2017 Conference, Scott Galloway, Professor of Marketing at NYU/Stern School of Business, explained that the best way for a company to achieve and maintain relevancy (and become a winner of the future) is to become "algorithmically driven." He mentions Facebook, Google, Amazon, Netflix, Uber, and Spotify as clear winners that have embraced such a model. Scott Galloway, *2017: Winners & Losers*, DLD (last visited May 30, 2017), http://events.techcast.com/dld/archiv/mo-0835/?q=mo-0835.

[3] *Id.*

industries respectively not by eliminating intermediaries but by replacing them.[4] These companies facilitate "peer-to-peer" transactions between service providers/creators/producers on the one hand and consumers on the other hand. Their platforms and algorithms help to personalize the customer experience. The market value of Airbnb is currently higher than the value of the largest hotel chains in the world.[5] Uber's market valuation is almost equal to that of Volkswagen and higher than that of General Motors.[6]

Successful companies of the future understand the importance of unmediated transactions and their role as facilitators for all stakeholders. The consumer experience is a central element of success for the companies of the future. Consumers are disinclined to deal with obscure, expensive, or even deceptive intermediaries. Rather, consumers expect to transact business directly with their counterparties, preferably on their own terms. But successful companies of the future do not focus exclusively on their customers and consumers in general. Rather, they build flat and inclusive relationships with *all* stakeholders, i.e., investors, directors, managers, and employees, but also early adopters, former employees, other companies, service providers, the different layers of government, and society at large.

Unmediated corporate governance structures and practices offer a better, faster, and more effective way for top-management to receive relevant input and feedback from the market and subsequently identify potential responses and plan for the future. As a result, the

[4] *See, e.g.*, Peter B. Nichol, *Disintermediation and Intermediation Beyond Th*eory, CIO (Apr. 21, 2016, 10:38 AM PT), http://www.cio.com/article/3058882/innovation/disintermediation-and-intermediation-beyond-theory.html.

[5] *See, e.g.*, Matt Egan, *Hilton: We're Not Scared of Airbnb*, CNN (Oct. 28, 2015, 1:40 AM ET), http://money.cnn.com/2015/10/28/investing/airbnb-hilton-hotels/; *Why That Crazy-High Airbnb Valuation Is Fair*, CB INSIGHTS (June 22, 2015), https://www.cbinsights.com/blog/airbnb-hospitality-industry-valuation-breakdown/; Deanna Ting, *Airbnb's Latest Investment Values It As Much As Hilton and Hyatt Combined*, SHIFT (Sept. 23, 2016, 7:00 AM), https://skift.com/2016/09/23/airbnbs-latest-investment-values-it-as-much-as-hilton-and-hyatt-combined/.

[6] *See, e.g.*, Liyan Chen, *At $68 Billion Valuation, Uber Will Be Bigger Than GM, Ford and Honda*, FORBES (Dec. 4, 2015, 11:23 AM), https://www.forbes.com/sites/liyanchen/2015/12/04/at-68-billion-valuation-uber-will-be-bigger-than-gm-ford-and-honda/#6e4c943432e3; Leila Abbound, *Uber and Airbnb, It's Time to Get Real*, BLOOMBERGGADFLY (Nov. 7, 2016, 5:14 AM EST), https://www.bloomberg.com/gadfly/articles/2016-11-07/time-for-uber-and-airbnb-to-get-real.

overall dynamism and quality of decision-making gets substantially enhanced, equipping companies with the highest chance of success.

This paper evaluates unmediated and technology-driven corporate governance practices, and processes that will best equip a company to become one of tomorrow's winners. We show what policymakers, regulators, consultants and other experts can do to help companies organize now for success tomorrow.

## II. Common Characteristics of Disrupted Companies

Corporate history is littered with numerous examples of successful companies that drifted into obscurity after failing to embrace change. Nokia, Kodak, and Blackberry are prominent examples.[7] All these firms collapsed after fast changes in their respective markets rendered their products/services irrelevant.

Less successful companies often share a myopic and short-term focus on shareholder value maximization that has led to an unhealthy emphasis on firm share price, market valuations, and financial metrics[8] that obscures issues of relevancy. Listed companies, in particular, are prone to put too much emphasis on financial metrics, such as return on net assets, return on capital deployed, and internal rate of return. Of course, it is important to focus on financial metrics. However, it is also important to realize that an emphasis on measures that aim at quarterly earnings and short-term stock price performance

[7] *See, e.g.*, Linda Yueh, *Nokia, Apple and Creative Destruction*, BBC (May 1, 2014), http://www.bbc.com/news/business-27238877; Andy Binns et al., *The Art of Strategic Renewal*, 55 MITSLOAN MGMT. REV., Winter 2014 (Dec. 19, 2013), http://sloanreview.mit.edu/article/the-art-of-strategic-renewal/.

[8] *See, e.g.*, Stephen Taub, *Short-Term Focus Can Be Riskier*, CFO (Sept. 8, 2005), http://ww2.cfo.com/risk-compliance/2005/09/short-term-focus-can-be-riskier-report/; EY, SHORT-TERMISM IN BUSINESS: CAUSES, MECHANISMS AND CONSEQUENCES (2014), http://www.ey.com/Publication/vwLUAssets/EY_Poland_Report/$FILE/Short-termism_raport_EY.pdf; MCKINSEY GLOB. INST., MCKINSEY & CO., MEASURING THE ECONOMIC IMPACT OF SHORT-TERMISM (2017), http://www.mckinsey.com/~/media/McKinsey/Global%20Themes/Long%20term%20Capitalism/Where%20companies%20with%20a%20long%20term%20view%20outperform%20their%20peers/MGI-Measuring-the-economic-impact-of-short-termism.ashx; Dominic Barton et al., *Finally, Evidence That Managing for the Long-Term Pays Off*, HARV. BUS. REV. (Feb. 7, 2017), https://hbr.org/2017/02/finally-proof-that-managing-for-the-long-term-pays-off.

can easily distract an organization from the important business task of identifying strategies that can help a firm remain relevant in the future.[9]

Less successful companies are also often slow in embracing algorithmic technologies, data analytics, big data, and platforms.[10] Instead, such companies usually prefer to concentrate on the execution of established business models built around existing and successful products or services.[11] Executives with a knowledge of, and focus on, innovation and consumer experience — i.e., those individuals responsible for the initial success of a company and best placed to deliver relevancy — often find themselves marginalized from core decision-making processes in companies that focus on established products.[12]

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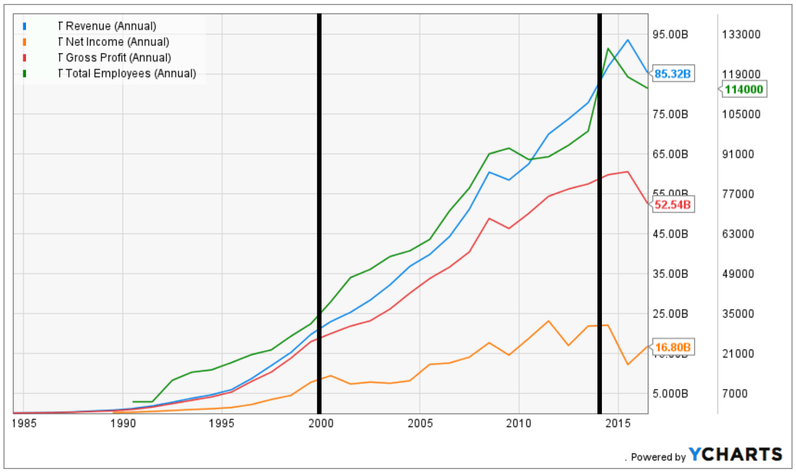
9 *See, e.g.*, EY, *supra* note 8; McKenzie Glob. Inst., *supra* note 8;

10 *See, e.g.*, Louis Columbus, *Businesses Adopting Big Data, Cloud & Mobility Grow 53% Faster Than Peers*, FORBES (Oct. 17, 2015, 9:56 PM), https://www.forbes.com/sites/louiscolumbus/2015/10/17/businesses-adopting-big-data-cloud-mobility-grow-53-faster-than-peers/#7ff28d6e7d8a; Satya Ramaswamy, *What the Companies Winning at Big Data Do Differently*, HARV. BUS. REV. (June 25, 2013), https://hbr.org/2013/06/what-the-companies-winning-at; Clint Boulton, '*Digital Laggards' Must Harness Data or Get Left Behind*, CIO (Sept. 21, 2016, 6:28 AM PT), http://www.cio.com/article/3122806/it-industry/digital-laggards-must-harness-data-or-get-left-behind.html. Even companies in which these technologies have been the drivers of success can quickly become less successful if they fail to update the technology frequently. Failing to leverage technology to offer a meaningful and personalized consumer experience opens the door for the growing number of startups to challenge and disrupt once successful and relevant companies. *See, e.g.*, *10 Companies That Failed to Innovate and What Happened to Them,* VOCOLI (July 21, 2014), https://www.vocoli.com/blog/july-2014/10-companies-that-failed-to-innovate-and-what-happened-to-them/.

11 *See, e.g.*, Matthew C. Klein, *Six Opportunities Steve Ballmer Missed at Microsoft*, BLOOMBERGVIEW (Aug. 23, 2013, 2:14 PM EDT), https://www.bloomberg.com/view/articles/2013-08-23/six-opportunities-steve-ballmer-missed-at-microsoft-; Chunka Mui, *How Kodak Failed*, FORBES (Jan. 18, 2012, 9:56 AM), https://www.forbes.com/sites/chunkamui/2012/01/18/how-kodak-failed/#31d479906f27; Pete Pachal, *How Kodak Squandered Every Single Digital Opportunity It Had*, MASHABLE (Jan. 20, 2012), http://mashable.com/2012/01/20/kodak-digital-missteps/#YjJ3NA_beiqt; Roberto Baldwin, *The Mistakes That Cost Blackberry Its Crown*, WIRED (Aug. 13, 2013), 6:30 AM), https://www.wired.com/2013/08/blackberry-failures/; James Surowiecki, *Where Nokia Went Wrong*, NEW YORKER (Sept. 3, 2013), http://www.newyorker.com/business/currency/where-nokia-went-wrong.

12 *See, e.g.*, David Einstein, *Gates Steps Down as Microsoft CEO*, FORBES (Jan. 13, 2000, 5:50 PM), https://www.forbes.com/2000/01/13/mu7.html; *Google Names Dr. Eric Schmidt Chief Executive Officer*, GOOGLE (Aug. 6, 2001), http://googlepress.blogspot.com/2001/08/google-names-dr-eric-schmidt-chief.html; Ryan Singel, *Michael Arrington Officially Pushed Aside at TechCrunch*,

**Figure 1: Microsoft's "Financial" Performance**




A prominent example of a company that was successful under the old and established metrics but that did not meet consumer demands is Microsoft under Steve Ballmer. Microsoft was enormously profitable, even though it started to lose relevancy with consumers after Ballmer took over from founder Bill Gates as CEO in 2000.[13] Figure 1 shows that Ballmer oversaw a tripling of sales from 2000 to 2015, and that he doubled profits and created a tremendous

WIRED (Sept. 12, 2011, 5:49 PM), https://www.wired.com/2011/09/arrington-techcrunch/; Ingrid Lunden, *Michael Acton-Smith to Step Aside as CEO of Mind Candy as Moshi Monsters Struggles*, TC (July 11, 2014), https://techcrunch.com/2014/07/11/mind-candy-acton-smith/. For an analysis of the value of keeping founding CEOs long term, *see* Ben Horowitz, *Why We Prefer Founding CEOs*, ANDREESSEN HOROWITZ (Apr. 28, 2010), http://a16z.com/2010/04/28/why-we-prefer-founding-ceos/. For examples of companies that replaced their founder- turned- CEO with a new CEO but later brought the founder back, *see* Elena Bajic, *Can a CEO's Return Save a Floundering Company?* FORBES (Apr. 20, 2016, 12:00 PM), https://www.forbes.com/sites/elenabajic/2016/04/20/return-of-the-ceo/#384aab3c2b1a.

13 *See, e.g.*, Craig Timberg, *Ballmer's Departure Will Follow Years of Missed Opportunities for Microsoft*, WASH. POST (Aug. 23, 2013), https://www.washingtonpost.com/business/technology/2013/08/23/f8635092-0c20-11e3-b87c-476db8ac34cd_story.html?utm_term=.79258910fb6a.

number of jobs. Ballmer acquired Skype and launched Xbox.[14] By any of the traditional metrics, Steve Ballmer is considered a success.

Ballmer was not successful when considering the purpose of a company in terms of maintaining relevancy and offering meaningful consumer experiences. Ballmer failed to understand the most important technological developments that were taking place during his tenure as CEO.[15] While a new world of networked technologies and mobile consumption arrived, Microsoft under Ballmer failed to adapt quickly enough, and as a result Microsoft ceased to be relevant. Microsoft missed these developments because it focused on short-term financial metrics, rather than on designing products relevant for the next generation of consumers.[16] Instead, Ballmer let younger firms move in and reap the benefits.[17]

*Microsoft* was able to survive by re-inventing itself. After new CEO Satya Nadella took over, *Microsoft* changed direction, focusing on commercial cloud services (Azure), cognitive services (speech recognition artificial intelligence), and premium subscription and content services for Windows 10.[18] From a relevancy perspective, this

[14] *See, e.g.,* Timberg, *supra* note 13; Matthew Lynley, *Steve Ballmer's Tenure as Microsoft CEO in Numbers*, BUZZFEEDNEWS (Aug. 23, 2013, 2:37 PM), https://www.buzzfeed.com/mattlynley/steve-ballmers-tenure-as-microsoft-ceo-in-numbers?utm_term=.mxzGePyBQ#.ch2Qky6Xz.

[15] Steve Blank, *Why Tim Cook Is Steve Ballmer and Why He Still Has His Job at Apple,* STEVE BLANK (Oct. 24, 2016), https://steveblank.com/2016/10/24/why-tim-cook-is-steve-ballmer-and-why-he-still-has-his-job-at-apple/.

[16] *See, e.g.*, Kurt Eichenwald, *Microsoft's Lost Decade*, VANITY FAIR, Aug. 2012, at 108, http://www.vanityfair.com/news/business/2012/08/microsoft-lost-mojo-steve-ballmer; David Politis, *Idle Action: Why Microsoft's Change of Heart Is a Turning Point for Cloud Adoption*, BETTERCLOUDMONITOR (Sept. 2, 2015), https://www.bettercloud.com/monitor/microsoft-cloud-adoption/; Scot Finnie, *Microsoft at the Crossroads*, COMPUTER DEALER NEWS (2008), http://www.computerdealernews.com/news/microsoft-at-the-crossroads/5319?amp=1.

[17] Examples include search engines (Google), smart phones (Apple), mobile operating systems (Google and Apple), media (Netflix and Apple), and the Cloud (Amazon). In every case, Microsoft failed to recognize a new opportunity. Blank, *supra* note 15.

[18] See, e.g., Rebecca Lambert, *Satya Nadella Confirms Culture Shift Is Coming to Microsoft*, REC. (July 17, 2014), http://www.technologyrecord.com/Article/satya-nadella-confirms-culture-shift-is-coming-to-microsoft-38516#.WLl9BBIrKu4; Jessi Hempel, *Restart, Microsoft in the Age of Satya Nadela*, WIRED, Feb. 2015, at 64, https://www.wired.com/2015/01/microsoft-nadella/; Ina Fried, *Microsoft CEO Nadella on What Needs to Stay and What Needs to Change at Microsoft*, RECODE (July 10, 2014, 9:38 AM EDT), https://www.recode.net/2014/7/10/11628722/microsoft-ceo-nadella-on-what-needs-to-stay-and-change-at-microsoft; Pete Pachal, *Microsoft Lost the Last*

new strategic direction looks smart, even if Microsoft is unlikely to recapture its dominance of the 1980s or 90s.[19]

## III. Corporate Governance Reform

Existing corporate governance metrics focus on maintaining the hierarchical and centralized structure within corporations. *Corporate governance* refers to the structures and procedures within an organization that aim at ensuring that authority, responsibility, and control flow "downwards" from investors—who are the economic, legal, and moral *owners* of the company—through a board of directors to management and, finally, to the employees.[20] The existing corporate governance is built on the idea of centralization around a well-defined

*Decade. How Satya Nadella Plans to Win the Next*, MASHABLE (Nov. 10, 2014), http://mashable.com/2014/11/10/microsoft-satya-nadella-strategy/#YYV.kdHYBuqJ.

[19] *See, e.g.*, Pachal, *supra* note 18; Andrew Nusca, *The Man Who Is Transforming Microsoft*, FORTUNE (Nov. 11, 2016, 6:30 AM EDT), http://fortune.com/satya-nadella-microsoft-ceo/; Klint Finley, *Microsoft Has Zoomed Back to Relevance After Hitting Rock Bottom,* WIRED (July 19, 2016, 9:32 PM), https://www.wired.com/2016/07/microsoft-zoomed-back-relevance-hitting-bottom/; *Peter Woods, Microsoft As Relevant Now As Ever Before*, TOTAL COMPUTERS (Nov. 13, 2015), https://www.totalcomputers.co.uk/blog/microsoft-as-relevant-now-as-ever-before.

[20] *See* Mark Fenwick & Erik P.M. Vermeulen, *Future of Capitalism: 'Un-Corporating' Corporate Governance* 7 (Lex Res. Topics on Corp. L. & Econ., Working Paper No. 2106-4), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2795042. For various definitions of corporate governance *see, e.g.*, OECD, G20/OECD PRINCIPLES OF CORPORATE GOVERNANCE 9 (2015), http://www.oecd-ilibrary.org/docserver/download/2615021e.pdf?expires=1492724630&id=id&accname=guest&checksum=1716AB40811CD6BD903BCE7D6121D5B9; *What Is Corporate Governance?*, ICSA|THE GOVERNANCE INSTITUTE, https://www.icsa.org.uk/about-us/policy/what-is-corporate-governance (last visited May 30, 2017); *Corporate Governance Defined: Not So Easily*, CORPGOV.NET (last visited May 30, 2017), http://www.corpgov.net/library/corporate-governance-defined/; *What Is Corporate Governance?*, CARRIED INTEREST: CORPORATE GOVERNANCE, https://www.carriedin.com/corporate-governance/ (last visited May 30, 2017.

hierarchy.[21] Corporate governance rules are designed to protect those at the pinnacle of that hierarchy, particularly the minority investors.[22]

The dominant corporate governance view today focuses on maximization of shareholder value. According to the dominant view, the goal of a firm should be to increase the financial interests of the investors and by doing so the firm can maximize opportunities to be successful.[23] In practice, this shareholder primacy model means

[21] *See, e.g.,* Fenwick & Vermeulen, *supra* note 20. For an interesting article presenting evidence that flattened firms can exhibit more control and decision-making at the top than their more vertical former versions, *see* Julie Wulf, *The Flattened Firm – Not as Advertised* (Harv. Bus. Sch., Working Paper 12-087, Apr. 9, 2012), https://pdfs.semanticscholar.org/558d/46f9e2651a9815e856a6a22652f351bd286a.pdf.

[22] *See* Rafael La Porta et al., *Investor Protection and Corporate Governance*, 58 J. FIN. ECON. 3–27 (2000), http://faculty.tuck.dartmouth.edu/images/uploads/faculty/rafael-laporta/Investor_Protection-CorpGov.pdf.

[23] *See* CORNELIUS DE KLUYVER, A PRIMER ON CORPORATE GOVERNANCE 32–38 (2d ed. 2013). *Contra*, Lynn A. Strout, *The Shareholder Value Myth* (2013), Cornell Faculty Law Publications, Paper 771, http://scholarship.law.cornell.edu/facpub/771 (asserting that the consensus that corporations should be governed according to the shareholder primacy philosophy is crumbling, that "shareholder primacy is an abstract economic theory that lacks support from history, law, or the empirical evidence," and that "the idea of a single shareholder value is intellectually incoherent.") *id.* at 2. For more on the shareholder/stakeholders debate, *see, e.g.*, H. Jeff Smith, *The Shareholders vs. Stakeholders Debate*, MITSLOAN MGMT REV., Summer 2003, at 86, http://sloanreview.mit.edu/article/the-shareholders-vs-stakeholders-debate/. For the related debate on shareholder primacy versus director primacy, *see, e.g.*, Stephen M. Bainbridge, *Director v. Shareholder Primacy in the Convergence Debate*, SSRN (Feb. 17, 2002), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=299727 (noting, "The literature assumes that the U.S. model towards which global systems are (or are not) converging is one of shareholder primacy. This is error. The term shareholder primacy typically connotes two distinct principles: (1) The shareholder wealth maximization norm, pursuant to which directors are obliged to make decision[s] based solely on the basis of long-term shareholder gain. This principle is well-established in U.S. corporate law and, for purposes of this essay, may be taken as given. (2) The principle of ultimate shareholder control. Although shareholders do not wield day-to-day authority, they purportedly exercise ultimate decisionmaking authority through proxy contests, institutional investor activism, shareholder litigation, and the market for corporate control. Here is where the error lies. Insofar as control is concerned, U.S. corporate law is far more accurately described as a system of director primacy than one of shareholder primacy." *id.* at 1–2 [footnotes omitted]); Stephen M. Bainbridge, *Director Primacy: The Means and Ends of Corporate Governance*, 97 Nw. U. L. Rev. 547 (2002–2003) (stating, [T]he theory of director primacy is superior to the previous shareholder primacy model both as a positive account of the existing law and as a normative theory of corporate governance.") *id*. at 591; Lucian Ayre Bebchuk, *The Case for Increasing*

adopting measures that aim to ensure that all of the other actors/stakeholders within a firm act *as if* they were investor-shareholders.[24] By aligning the interests and incentives of the various actors in this way, firm performance—as measured by the share price—is improved. This benefits *all* of the stakeholders in a firm, as well as the public who benefit from the goods and services that a successful firm provides.[25]

Minimizing the risk of corporate scandals is a core objective of corporate governance reforms. Good corporate governance, under this view, i.e., maximizing shareholder value, should first aim to reduce the risk of managerial misbehavior. [26] Identifying structures, practices, processes, and mechanisms for achieving this goal has provided the impetus for most of the regulatory reform in this field

*Shareholder Power*, 118 HARV. L. REV. 833 (2004–2005) (noting that "empirical evidence indicates that shareholders' existing power to replace directors is insufficient to secure the adoption of value-increasing governance arrangements that management disfavors" and that shareholders lack the power "to initiate and vote to adopt changes in the corporation's basic corporate governance arrangements.") *id.* at 835, 836; Lucian A. Bebchuk, "*The Myth of the Shareholder Franchise*," 93 VA. L. REV. 675 (2005), (concluding, as the title suggests, "The shareholder franchise is largely a myth.") *id.* at 732. For a recent discussion of the law relating to shareholder primacy, *see* Robert J. Rhee, *A Legal Theory of Shareholder Primacy*, 102 MINN. L. REV. (forthcoming), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2938806.

[24] *See, e.g.*, Michael C. Jensen & William H. Meckling, *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure*, 3 J. FIN. ECON. 303, 309 (1976); Mark C. Greer, *Aligning Employee with Shareholder: The Role of the Leader,* CONTRACT MGMT., Sept. 2011, 74, 74–82. https://www.ncmahq.org/docs/default-source/default-document-library/Articles/CM0911---74-82.pdf.

[25]For a discussion of the arguments for and against the economic benefits of the maximization of shareholder value theory, *see* William Lazonick & Mary O'Sullivan, *Maximizing Shareholder Value: A New Ideology for Corporate Governance*, 29 ECON. & SOC'Y 13 (2000).

[26] *See generally* Christophe Volonté, *Foundations of Corporate Governance* (June 2012), https://wwz.unibas.ch/uploads/tx_x4epublication/Paper_Foundations.pdf (stating that the aim of corporate governance is "to protect investors against managerial misbehavior.") *id*. at 6. *See also* David Millon, *Redefining Corporate Law*, 24 IND. L. REV. 223, 231 (1991)(stating, "For shareholders to maximize returns on their investments under these circumstances [separation of ownership and control], the costs of managerial shirking and other forms of misbehavior must be minimized.").

over the last decade.[27] Starting with the *Enron* accounting fraud, corporate scandals have had a significance—both in the media and politically—that was not previously the case. Politicians are under much greater pressure to act against corporations, and the result has been that much of the post-2000 regulatory debate has been driven by the need to mitigate the risk of corporate misbehavior.[28] Misbehavior here simply means acting in a way that is detrimental to the shareholder-owners' best interests. According to this view, a corporate culture that eradicates—or at least minimizes—opportunities for misbehavior of any kind offers the best means of maximizing shareholder value and is, therefore, optimal.[29]

Corporate governance reforms that focus on minimizing the risk of corporate scandals increase shareholder value. Shareholder value maximization is seen as a by-product of aligning the interests of executives-management with the interests of shareholders. Corporate governance reforms that focus on minimizing the risk of corporate scandals view executives, managers, and other employees as motivated by self-interest and operating with an unhealthy disregard for the negative consequences of their actions on investors (and society).[30] If management acts opportunistically at the expense of shareholder value, everyone suffers the negative consequences of firm underperformance and possible bankruptcy.[31] Hence, increasing

[27] *See* Brian R. Cheffins, *Delaware and the Transformation of Corporate Governance*, 40 DEL. J. CORP. L 11, 15–16 (2015) (stating, "The governance scandals of the early 2000s and the resulting outcry prompted swift and substantial changes to the federal regulation of board composition and structure as part of what was for U.S. corporate governance 'something like a hundred year flood of reform.'") *id.* at 38; Bruce E. Aronson, *Corporate Governance Models and Practices in Japan and East Asia: Proceedings of a Panel Discussion*, 27 COLUM. J. ASIAN L. 221, 237 (2014) (stating, "In the United States, which is known as a shareholder system, the main focus of corporate governance reform over the past few decades has been to strengthen the monitoring function of the boards of directors to aid shareholders in addressing the problem of agency costs.").

[28] *See* CARY COGLIANESE ET AL., ROLE OF GOVERNMENT IN CORPORATE GOVERNANCE 1–2 (2004).

[29] *See, e.g.*, Alex Verkhivker, *When Shareholders Aren't Watching, Managers Misbehave*, CHICAGOBOOTHREVIEW (Jan. 23, 2017), http://review.chicagobooth.edu/finance/2017/article/when-shareholders-aren%E2%80%99t-watching-managers-misbehave.

[30] *See, e.g.,* Mirela V. Hristova, Developments in Baking and Financial Law, *Dodd-Frank's Corporate Governance Reform*, 30 REV. BANKING & FIN. L. 516, 519 (2011), https://www.bu.edu/rbfl/files/2013/09/CorporateGovernanceReform.pdf.

[31] *See, e.g.*, Maria Maher & Thomas Andersson, *Corporate Governance: Effects on Firm Performance and Economic Growth* 7 (1999), https://www.oecd.org/sti/ind/2090569.pdf.

shareholder control over other actors within the firm has become the primary goal of corporate governance rules.[32] And, if the corporate governance is "right," shareholder value will naturally follow.[33] Indeed, Jack Welch—CEO of *General Motors* from 1981 to 2003 and widely viewed as a shareholder value maximization evangelist—insisted after the financial crisis of 2008 that maximizing shareholder value should be viewed as "an outcome rather than a strategy."[34]

Despite all efforts at corporate governance reform, the perception of corporations' damaging short-term focus remains a problem. Increasing the accountability of corporate executives to shareholders and increasing shareholder control over executives does not address the problem of short-term focus. In fact, it may actually have the counterproductive and unintended effect of further incentivizing a damaging emphasis on quarterly financial reporting.[35]

In an attempt to remedy the problems associated with short-termism, several recent policy initiatives and proposals aim at creating

[32] *See* Justin Fox & Jay W. Lorsch, *What Good Are Shareholders*?, HARV. BUS. REV., July-Aug. 2012, at 49, 50, https://hbr.org/2012/07/what-good-are-shareholders.

[33] *See* JOHN D. SULLIVAN ET AL., THE ROLE OF CORPORATE GOVERNANCE IN FIGHTING CORRUPTION 1, 5–6 (Oct. 2013), http://www.cipe.org/sites/default/files/publication-docs/Russian%20National%20Corporate%20Governance%20Report%202013ENGLISH_0.pdf.

[34] Greg Satell, *Beware of Simple Rules and Slogans –They Can Kill Your Business*, FORBES (MAR. 27, 2016, 10:47 PM), https://www.forbes.com/sites/gregsatell/2016/03/27/beware-of-simple-rules-and-slogans-they-can-kill-your-business/#76c494c75901.

[35] *See, e.g.*, Melody Walker, *Research Revels the Dark Side of CEO Incentive-Based Pay*, SOURCE (Mar. 23, 2016), https://source.wustl.edu/2016/03/research-reveals-dark-side-ceo-incentive-based-pay/; Blair Jones & Seymour Burchman, *How Incentives for Long-Term Management Backfire*, HARV. BUS. REV. (May 6, 2016), https://hbr.org/2016/05/how-incentives-for-long-term-management-backfire; William Galston & Elaine Kamarck, *Against Short-Termism*, DEMOCRACY: A J. IDEAS (Fall, 2015), http://democracyjournal.org/magazine/38/against-short-termism/; Robert C. Pozen, *Curbing Short-Termism in Corporate America: Focus on Executive Compensation,* BROOKINGS: GOVERNANCE STUDIES (May 2014), https://www.brookings.edu/wp-content/uploads/2016/06/Brookings_ShortTermismfinal_may2014.pdf; Cydney Posner, *The Unintended Consequences of Say on Pay*, PUBCO@COOLEY (Sept. 14, 2016, 2:23 PM), https://cooleypubco.com/2016/09/14/the-unintended-consequences-of-say-on-pay/.

a corporate governance culture with a focus on long-term value creation. Some recent policy developments aim at encouraging shareholders to take a more responsible long-term perspective when investing in a company.[36] Other recent initiatives focus on the role of the board of directors or management board in developing and implementing long-term value creation strategies and cultures.[37]

In an attempt to create more responsible shareholders, multiple jurisdictions have adopted so-called stewardship corporate governance codes that entail a focus on long-term value creation.[38]

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[36] *See, e.g.*, WORLD ECONOMIC FORUM & OLIVER WYMAN, THE FUTURE OF LONG-TERM INVESTING (2011, http://www3.weforum.org/docs/WEF_FutureLongTermInvesting_Report_2011.pdf; Herbert Smith Freehills LLP, *Differential Shareholder Rights: A Long-Term Solution to Short-Termism?*, LEXOLOGY (Aug. 26, 2015), http://www.lexology.com/library/detail.aspx?g=54b9247d-21b7-419b-b590-5a5a5f8f1c85.

[37] *See, e.g.*, Adam Hartung, *Report – How Boards Can Increase Long-Term Shareholder Value*, FORBES (Sept. 29, 2015, 10:55 AM), https://www.forbes.com/sites/adamhartung/2015/09/29/report-boards-can-influence-long-term-shareholder-value/#241fc71656cd; Alfred Rapport, *Ten Ways to Create Shareholder Value*, HARV. BUS. REV. (Sept. 2006), https://hbr.org/2006/09/ten-ways-to-create-shareholder-value.

[38] Examples include: PRINCIPLES FOR RESPONSIBLE INSTITUTIONAL INVESTORS (Feb. 26, 2014), http://www.fsa.go.jp/en/refer/councils/stewardship/20140407/01.pdf (Japanese Stewardship Code); The MALAYSIAN CODE FOR INSTITUTIONAL INVESTORS (June 2014), https://www.mswg.org.my/the-malaysian-code-for-institutional-investors; FINANCIAL REPORTING COUNCIL, THE UK STEWARDSHIP CODE (Sept. 2012), https://www.frc.org.uk/Our-Work/Publications/Corporate-Governance/UK-Stewardship-Code-September-2012.pdf; Inst. of Dirs. Southern Africa, CRISA: CODE FOR RESPONSIBLE INVESTING IN SOUTH AFRICA (2011), http://c.ymcdn.com/sites/www.iodsa.co.za/resource/resmgr/crisa/crisa_19_july_2011.pdf; GUIDELINES FOR INSTITUTIONAL INVESTORS GOVERNING THE EXERCISING OF PARTICIPATION RIGHTS IN PUBLIC LIMITED COMPANIES, (Jan. 21, 2013), https://www.ethosfund.ch/sites/default/files/upload/publication/p432e_130121_Guidelines_for_institutional_investors.pdf (Swiss Code); STEWARDSHIP PRINCIPLES FOR INSTITUTIONAL INVESTORS (2016), http://cgc.twse.com.tw/static/20160630/0000000054a7dce70155a09e021f001c_Stewardship%20Principles%20for%20Institutional%20Investors-20160630.pdf (Taiwan Stock Exchange Stewardship Code); H.K. SEC. & EXCH. COMM'N, PRINCIPLES OF RESPONSIBLE OWNERSHIP (2016), http://www.sfc.hk/web/EN/files/ER/PDF/Principles%20of%20Responsible%20Ownership_Eng.pdf; SINGAPORE STEWARDSHIP PRINCIPLES WORKING GROUP, SINGAPORE STEWARDSHIP PRINCIPLES FOR RESPONSIBLE INVESTORS (Nov. 2016), http://www.stewardshipasia.com.sg/principles/singapore_stewardship_principles.pdf . In addition to the various national stewardship codes, the International Corporate Governance Network has published GLOBAL STEWARDSHIP PRINCIPLES (2016), http://icgn.flpbks.com/icgn-global-stewardship-principles/#p=1, to set forth its

Shareholders, particularly institutional investors, are viewed as stewards of the company. Stewards necessarily take a long-term view of the firm and embrace a more active role in the supervision of management issues.[39] The drafters of the stewardship codes adopted the view that mandating shareholders, particularly institutional investors, to embrace a longer-term view when making their investments leads to a more balanced corporate culture.[40]

The *Commonsense Principles of Corporate Governance* provide another prominent example of the trend toward more responsible long-term value strategies in corporations.[41] Recognizing

"view of best practices in relation to investor stewardship obligations, policies and processes" (*id.* at 5) and to introduce a global stewardship code template.

[39] Taiwan's code provides, "The Principles, through provision of a principle-based framework and guidance, are intended to encourage institutional investors to apply their expertise and influence, and fulfill their duties as asset owners or managers, so as to enhance long-term value for themselves and capital providers. The institutional investors, through monitoring, engaging in dialogue and interacting with investee companies, as well as efforts to enhance investment value, are also able to improve the quality of corporate governance of the investee companies, thus creating an overall positive effect on the development of industry, economy and society." STEWARDSHIP PRINCIPLES FOR INSTITUTIONAL INVESTORS, *supra* note 38, at 2. Principle 3 is to "regularly monitor investee companies." *Id.* at 5. The other codes have similar provisions. For example, the Japanese code provides in Principle 3, "Institutional investors should monitor investee companies so that they can appropriately fulfill their stewardship responsibilities with an orientation towards the sustainable growth of the companies." PRINCIPLES FOR RESPONSIBLE INSTITUTIONAL INVEST, S*upra* note 38, at 6. Principle 3 of the UK's code provides, "Institutional investors should monitor their investee companies." Financial Reporting Council, *supra* note 38, at 7. These codes also provide guidance for implementing the principle.

[40] *See* Martin Lipton, *The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership Between Corporations and Investors to Achieve Sustainable Long-Term Investment and Growth*, HARV. L. SCH. F. CORP. GOVERNANCE & REG. (Jan. 11, 2017), https://corpgov.law.harvard.edu/2017/01/11/corporate-governance-the-new-paradigm/.

[41] COMMONSENSE PRINCIPLES OF CORPORATE GOVERNANCE (2016), http://www.governanceprinciples.org/wp-content/uploads/2016/07/GovernancePrinciples_Principles.pdf. For commentary on the Principles, *see, e.g.*, Jena McGregor, *These Business Titans Are Teaming Up for Better Corporate Governance*, WASH. POST (July 21, 2016), https://www.washingtonpost.com/news/on-leadership/wp/2016/07/21/these-business-titans-are-teaming-up-for-better-corporate-

that "most everyone agrees that we need good corporate governance, there has been wide disagreement on what that actually means."[42] In July 2016, a group of leading corporate executives, asset managers, and investors unveiled a report that examined the "commonsense principles" for publicly listed companies, their boards of directors, and shareholders.[43] Although the *Commonsense Principles of Corporate Governance* focus particularly on publicly listed companies in the United States, they also aim to help policymakers in other jurisdictions assess and recalibrate corporate governance mechanisms.[44]

The *Commonsense Principles of Corporate Governance* reflect the drafters' intention to encourage executives to take a long-term approach to the governance of their companies. A long-term approach under such principles can be accomplished by framing the required quarterly reporting for the company in the broader context of the company's articulated strategy and by providing a company outlook for trends and metrics that reflect the company's progress, or lack thereof, on long-term goals.[45] However, it is the sort of approach one might take if one owned 100% of a company.

governance/?utm_term=.12b412007e44; Antoine Gara, *The Blueprint to Get Corporate America and Wall Street to Up Its Game*, FORBES (July 21, 2016, 4:30 PM), https://www.forbes.com/sites/antoinegara/2016/07/21/the-blueprint-to-get-corporate-america-and-wall-street-to-up-its-game/#5ceeb5b5285d; Michael W. Peregrine, *A United Effort to Overhaul Corporate Governance*, N.Y. TIMES (Aug. 1, 2016), https://www.nytimes.com/2016/08/02/business/dealbook/a-united-effort-to-overhaul-corporate-governance.html; Stephen Davis & Jon Lukomnik, *Behind the Call for Better Corporate Governance*, COMPLIANCE WEEK Blog (Nov. 22, 2016), https://www.complianceweek.com/blogs/stephen-davis-jon-lukomnik/behind-the-call-for-better-corporate-governance#.WQJDrtLyuUk.

[42] TIM ARMOUR ET AL., OPEN LETTER: COMMONSENSE PRINCIPLES OF CORPORATE GOVERNANCE, 2016, http://www.governanceprinciples.org/wp-content/uploads/2016/07/Governance_Principles_Open_Letter.pdf.

[43] The signers of the letter were Tim Armour (Capital Group), Mary Barra (General Motors), Warren Buffet (Berkshire Hathaway), Jamie Dimon (JP Morgan Chase), Mary Erdoes (J.P. Morgan Asset Management), Larry Fink (Blackrock), Jeff Immelt (General Electric), Mark Machin (CPP Investment Board), Lowell McAdam (Verizon), Bill McNabb (Vanguard), Ronald O'Hanley (State Street Advisors), Drian Rodgers (T. Rowe Price), and Jeff Ubben (Valueact Capital). TIM ARMOUR ET AL., COMMONSENSE CORPORATE GOVERNANCE PRINCIPLES (2016), http://www.governanceprinciples.org/.

[44] *See Companies and Investors Make Corporate Governance a Common Cause,* INSTITUTIONAL EYE (Aug. 19, 2016), http://iias.in/downloads/institutional/companies-and-investors-make-corporate-governance-a-common-cause-iias-19Aug16.pdf.

[45] COMMON SENSE PRINCIPLES OF CORPORATE GOVERNANCE, *supra* note 41, at 6.

The focus on long-term value creation has become increasingly widespread. On September 2, 2016, the International Council of the World Economic Forum issued *The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership Between Corporations and Investors to Achieve Sustainable Long-Term Investment and Growth* ("The New Paradigm").[46] Like the *Commonsense Principles of Corporate Governance*, *The New Paradigm* gives the board of directors a crucial role in implementing corporate strategies and a corporate culture that pursues sustainable long-term value creation.[47] Similarly, in January 2017, a coalition of institutional investors and global asset managers issued the *Corporate Governance Principles for US Listed Companies* by the Investor Stewardship Group.[48] These principles also focus on long-term value

[46] Lipton, *The New Paradigm*, *supra* note 40 ; *see also* Martin Lipton et al., Wachtell Lipton Rosen & Katz Memorandum on a New Paradigm for Corporate Governance (Jan. 23, 2017), http://www.wlrk.com/webdocs/wlrknew/WLRKMemos/WLRK/WLRK.25487.17.pdf (stating, "*The Compact for Responsive and Responsible Leadership: A Roadmap for Sustainable Long-Term Growth and Opportunity* and *The New Paradigm: A Roadmap for an Implicit Corporate Governance Partnership Between Corporations and Investors to Achieve Sustainable Long-Term Investment and Growth* received significant attention at the 2017 Davos annual meeting of the International Business Council (IBC) of the World Economic Forum (WEF). The New Paradigm, which sets forth a set of principles recalibrating the relationship between corporations and investors to help them resist short-termism and facilitate long-term value creation, was prepared by the undersigned and approved at the August 2016 meeting of the IBC. The Compact, a one-page document that is in large measure based on The New Paradigm and allows companies and investors to endorse the key tenets of The New Paradigm by signing onto The Compact, has already been endorsed by more than 100 companies worldwide. To facilitate implementation of The Compact, the IBC published a short summary of the key provisions of The New Paradigm representing best practices for implementation of The Compact. The IBC is continuing to seek endorsement of The Compact. We believe that The Compact and The New Paradigm will reduce short-termism and promote long-term sustainable investment. We recommend endorsement of, and adherence to, The New Paradigm and The Compact by all companies, institutional investors and asset managers.").

[47] Lipton et al., *The New Paradigm*, *supra* note 40 .

[48] INVESTOR STEWARDSHIP GROUP, CORPORATE GOVERNANCE PRINCIPLES FOR US LISTED COMPANIES (2017), https://www.isgframework.org/corporate-governance-principles/.

creation.[49] They are based on the belief that shareholders/investors are best suited to appoint directors who represent the long-term interests of the company.[50] The board of directors should monitor management and develop incentive structures that are aligned with these interests.

## IV. Limits of Corporate Governance Reform

Increasing firm relevance through corporate governance reform encounters many limitations. In fact, corporate governance reforms via new, revised, or additional corporate governance rules, guidelines, principles, or codes are often met with a mixture of indifference, skepticism, and even hostility from management and governance experts working for listed companies.[51] In practice, top-down corporate governance reform measures rarely, if ever, result in a genuine change in the governance and culture of firms.[52]

Compliance fatigue among corporate executives is a very common phenomenon that can be explained by several factors. First, corporate governance is a persistent and regular phenomenon that requires corporate executives' and compliance departments' almost constant attention and responsiveness to a regular onslaught of corporate governance reform attempts via new, revised, or additional corporate governance rules, guidelines, principles, or codes.

Corporate governance reform often takes place by repackaging old content with new or revised labels. For instance, the announcement

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[49] *Id.*

[50] *Id.*

[51] See, e.g., JONATHAN R. MACEY, CORPORATE GOVERNANCE 16 (2008); For an academic analysis of the topic, *see* Marianna Pargendler, *The Corporate Governance Obsession* (Sept. 2014), http://scholarship.law.berkeley.edu/cgi/viewcontent.cgi?article=1004&context=law_econ; Robert F. Felton, *A New Era in Corporate Governance*, MCKINSEY ON FIN., Summer 2004, at 6–7, http://www.theiafm.org/publications/237_Governance_reform.pdf.

[52] *See, e.g.*, Shann Turnbull, *A Sustainable Future for Corporate Governance Theory and Practice* 355–57 *in* CORPORATE GOVERNANCE: RECENT DEVELOPMENTS AND NEW TRENDS (Sabri Boribaker et al. eds., 2012), https://books.google.com/books?id=6iDD5Z3WLZEC&pg=PA355&lpg=PA355&dq=top+down+corporate+governance&source=bl&ots=A9io8H-_R-&sig=tN0vnobmqIRIve5Qu3Pi3N1LnO0&hl=en&sa=X&ved=0ahUKEwjwzo_Mx-vSAhWr6IMKHRr7C7wQ6AEIVTAJ#v=onepage&q=top%20down%20corporate%20governance&f=false; Shann Turnbull, *Correcting the Failures in Corporate Governance Reforms* 4–6, SSRN (Oct. 14, 2007), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1021482; Douglas M. Branson, *Proposals for Corporate Governance Reform: Six Decades of Ineptitude and Counting*, 48 WAKE FOREST L. REV. 673, 694-96 (2013).

of the Commonsense Principles of Corporate Governance[53] stated with much fanfare that wide disagreement exists regarding the parameters of high quality or good corporate governance. Yet, the Commonsense Principles of Corporate Governance added very little that could be considered new governance and mostly regurgitated existing principles with some new labels.

Corporate governance intermediaries often satisfy corporate governance requirements through minimum compliance with the rules and regulations. Those intermediaries, such as lawyers, accountants, auditors, and other advisors and consultants, often have a conservative perspective when it comes to new corporate governance initiatives, and they attempt to use minimal efforts for maximum compliance. In fact, compliance-based communications with shareholders often demonstrate a tick-the-box attitude, and contain bland, boilerplate, or legalistic statements about corporate governance and the company's past performance and opportunities for future growth.

Corporate governance initiatives that encourage long-term thinking rarely work as expected by policymakers. While many obvious benefits derive from the adoption of Stewardship Codes,[54] there are also risks associated with such adoptions. More specifically, it is unclear if requiring shareholders to be more responsible[55] can be

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[53] ARMOUR ET AL., OPEN LETTER, *supra* note 42.

[54] For examples of codes, *see supra* note 38. Partly as a result of adopting a stewardship code (and other corporate governance reforms), Japan has risen in the Asian Corporate Governance Association rankings. More importantly, there is greater interest in Japanese firms among international, and especially US, institutional investors. *See, eg*., Press Conference, Jamie Allen, Secretary General Asian Corporate Governance Association, CG Watch – Ecosystems Matter 2–4, 8–10 (Sept. 29, 2016), http://www.acga-asia.org/upload/files/CG_Watch_2016_Press_Conference_ppt.pdf; *CalPERS' Commitment to Japan's Stewardship Code* 1, CALPERS, https://www.calpers.ca.gov/docs/japan-stewardship-code.pdf.

[55] Here are some examples of provisions relating to shareholder responsibility. "Institutional investors should seek to arrive at an understanding in common with investee companies and work to solve problems through constructive engagement with investee companies." PRINCIPLES FOR RESPONSIBLE INSTITUTIONAL INVESTORS, *supra* note 38, Principle 4; "Maintain an appropriate dialogue and interaction with investee companies." STEWARDSHIP PRINCIPLES FOR INSTITUTIONAL INVESTORS, *supra* note 38, Principle 4; "Institutional investors should . . . establish clear guidelines on when and how they will escalate their

a realistic and sensible objective. In fact, mobilizing investors may actually lead managers to ask the wrong kind of questions about what needs to be done to ensure sustainable success. Rather than incentivizing a focus on innovation and relevancy, such measures merely reinforce the centralized shareholder primacy view. Indeed, stewardship pressures often expose companies to an unhealthy focus on short-term dividends and share buybacks designed to please the stock market.

**Figure 2: Thirteen S&P 500 Winners – Average Revenue Growth and History of Dividends and Other Distributions**

| | Average Revenue Growth (2012 - 2016) | History of Dividends and other Distributions |
|---|---|---|
| Facebook | 56% | No |
| Welltower | 50% | Yes |
| Alexion Pharmaceuticals | 37% | No |
| Salesforce | 32% | No |
| Under Armour | 30% | No |
| Amazon | 26% | No |
| Tripadvisor | 25% | No |
| Priceline | 25% | No |
| Cognizant Technology | 22% | No |
| Google/Alphabet | 21% | No |
| American Tower | 19% | Yes |
| Red Het | 18% | No |
| Equinix | 18% | Yes |

Figure 2 illustrates that a focus on dividends and share buybacks makes it extremely difficult for a company to invest in innovations that are critical to maintaining relevancy over the long-term. Underscoring this point, Figure 2 shows that ten out of the thirteen *S&P 500* with an above-average revenue growth have never paid any dividends to their shareholders and were never engaged in share buyback activities.

The debate on the primary responsibility for a long-term value creation strategy within firms has identified several core players. Competing interests and their proponents have suggested that responsibility for long-term value creation strategy rests with either the board, shareholders, customers, employees, or even creditors. The Dutch Corporate Governance Code, issued in December 2016,

stewardship activities." FINANCIAL REPORTING COUNCIL, *supra* note 38, Principle 4.

suggests that the board should be tasked with developing a view on the firm's long-term value creation and should formulate a strategy for it.[56] Implementation of such code guidance is rather difficult in practice as definitions of long-term value, and the beneficiary of the value creation, are unclear.

Serial entrepreneurs, venture capitalists, futurists, and business visionaries argue that a customer-first approach is the key to creating a corporate environment that ensures relevancy for the long term.[57] Relevancy-for-consumers will then be reflected in continued commercial success and value creation.[58]

Others take an employees-first approach.[59] They are appalled by the current corporate environment in which mass lay-offs are implemented in order to secure an increase in or maintain the current

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[56] MONITORING COMMISSIE, DE NETHERLANDSE CORPORATE GOVERNANCE CODE (Dec. 2016), http://www.mccg.nl/download/?id=3364. Depending on market dynamics, it may be necessary to make short-term adjustments to the strategy. *Id.* at 13.

[57] *See, e.g.*, David Ongchoco, *8 Pieces of Advice Venture Capitalists Have for Entrepreneurs*, INC. (Oct. 27, 2015), https://www.inc.com/david-ongchoco/8-pieces-of-advice-top-venture-capitalists-have-for-entrepreneurs.html; Mario Thomas, *Why Startups Need to Start Putting Customers First*, GLOBE & MAIL (Nov. 28, 2012, 12:47 PM EST), http://www.theglobeandmail.com/report-on-business/small-business/startups/why-startups-need-to-start-putting-customers-first/article5721857/; Matthew Diebel, *Warby Parker: A Visionary Approach to Selling Eyewear,* USA TODAY (Nov. 30, 2014, 9:00 AM ET, updated Dec. 1, 2014, 8:35 AM ET), https://www.usatoday.com/story/money/business/2014/11/30/warby-parker-selling-stylish-eyewear-cheaper/70060670/.

[58] See Scott Davis, *Why Consumers Love Google, Adore Amazon, Pine for Pixar and Run to Fitbit*, FORBES (Nov. 3, 2016, 4:08 PM), https://www.forbes.com/sites/scottdavis/2016/11/03/relentless-relevance-why-consumers-love-google-adore-amazon-and-run-to-fitbit/#714fd826226f.

[59] *See, e.g.*, Shep Hyken, *Employee-First Approach Is Key to Customer Service Success*, FORBES, (Dec. 4, 2014, 12:08 PM), https://www.forbes.com/sites/shephyken/2014/12/04/employee-first-approach-is-key-to-customer-service-success/#68f9c03f56cf; *Our Employee First Culture*, CONTAINER STORE, http://standfor.containerstore.com/putting-our-employees-first/; Oscar Raymundo, *Richard Branson: Companies Should Put Employees First*, INC., https://www.inc.com/oscar-raymundo/richard-branson-companies-should-put-employees-first.html; Dilip Bhattacharjee et al., *The Secret to Delighting Customers: Putting Employees First,* MCKINSEY & CO. (Mar. 2016), http://www.mckinsey.com/business-functions/operations/our-insights/the-secret-to-delighting-customers-putting-employees-first.

level of the stock price.[60] Proponents of an employees-first approach also take issue with rewarding executives for the business decisions that (presumably) created the problems on the balance sheet and triggered the pressure to reduce labor costs. These commentators argue that management should build a corporate culture that will motivate employees and maximize opportunities for employee job satisfaction.[61] In their view, maintaining employee happiness is the key to customer happiness and, by extension, the long-term commercial success of a firm.[62]

## V. Unmediated & Technology-Based Corporate Governance

The debate over responsibility for long-term value creation strategy within firms largely ignores new realities and corresponding data trends.[63] Society is transitioning from a centralized infrastructure to a decentralized, unmediated, and interconnected infrastructure, from a world of vertical hierarchies to a world of horizontal, open, and autonomous networks.[64] Therefore, we suggest moving beyond the

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[60] *See, e.g.*, *How Layoffs Hurt Companies*, KNOWLEDGE@WHARTON (Apr. 12, 2016), http://knowledge.wharton.upenn.edu/article/how-layoffs-cost-companies/; Colin Campbell, *Why Nintendo's Satoru Iwata Refuses to Lay Off Staff*, POLYGON (July 5, 2013, 5:00 PM), http://www.polygon.com/2013/7/5/4496512/why-nintendos-satoru-iwata-refuses-to-lay-off-staff.

[61] *See, e.g.*, Hyken, *supra* note 59; Bhattacharjee et al., supra note 59.

[62] *See, e.g*, Hyken, *supra* note 59; *Raymundo*, *supra* note 59.

[63] *See, e.g.,* FUTURE TODAY INST., 2017 TECH TEND REPORT: EMERGING TECHNOLOGY TRENDS THAT WILL INFLUENCE BUSINESS, EDUCATION, POLITICS, GOVERNMENT, EDUCATION, AND SOCIETY IN THE COMING YEAR (2017), https://futuretodayinstitute.com/2017-tech-trends/; Steven Lockwood, *Analytics and the Cloud: The Internet of Things*, IBM BIG DATA & ANALYTICS HUB (Mar. 7, 2017), http://www.ibmbigdatahub.com/blog/analytics-and-cloud-internet-things; John Brandon, *15 Tech Trends in Autonomous Cars, Artificial Intelligence and Machine Learning for 2017*, VB (Dec. 9, 2016, 3:40 PM), http://venturebeat.com/2016/12/09/15-tech-trends-in-autonomous-cars-artificial-intelligence-and-machine-learning-for-2017/; Louis Columbus, *Roundup of Analytics, Big Data & BI Forecasts and Market Estimates*, 2016, FORBES (Aug. 20, 2016, 10:18 PM), https://www.forbes.com/sites/louiscolumbus/2016/08/20/roundup-of-analytics-big-data-bi-forecasts-and-market-estimates-2016/#432c56f6f218; Wulf A. Kaal & Erik P.M. Vermeulen, *How to Regulate Disruptive Innovation—From Facts to Data*, 57 JURIMETRICS (forthcoming 2017); Mark Fenwick, Wulf A. Kaal & Erik P.M. Vermeulen, *Regulation Tomorrow: What Happens When Technology Is Faster Than Law*, SSRN (Sept. 4, 2016), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2834531.

[64] *See, e.g.*, Olaf Carlson-Wee, *The Future Is a Decentralized Internet*, TC (Jan.8, 2017), https://techcrunch.com/2017/01/08/the-future-is-a-decentralized-internet/; LAWRENCE M. FRIEDMAN, THE HORIZONTAL SOCIETY 16–18, 23 (1999); Rob Marvin, *Blockchain: The Invisible Technology That's Changing the World*, PC (Feb.

short-term versus long-term framing of the issue. Instead, we introduce an alternative framework for thinking about how firms need to be governed and organized in order to maximize opportunities for establishing and sustaining relevancy.

Rapid technological change initiated and accelerates society's transition from a centralized infrastructure to a decentralized, unmediated, and interconnected infrastructure (see Figure 3). The Internet has enabled a free, fast, and global exchange of information and ideas.[65] In addition, online shopping has brought firms and consumers closer together, both in time and space.[66] Social media has further revolutionized the way we exchange and share information. The social impact of these changes has been astonishing. Within one generation, every aspect of social interaction has been transformed.[67]

6, 2017), http://www.pcmag.com/article/351486/blockchain-the-invisible-technology-thats-changing-the-wor; Manuel Castells, *The Impact of the Internet on Society: A Global Perspective* 127, in CHANGE: 19 KEY ESSAYS IN HOW THE INTERNET IS CHANGING OUR LIVES (2014), https://www.bbvaopenmind.com/en/article/the-impact-of-the-internet-on-society-a-global-perspective/?fullscreen=true; ALEXANDER R. GALLOWAY, PROTOCOL: HOW CONTROL EXISTS AFTER DECENTRALIZATION (2004), http://asounder.org/resources/galloway_protocol.pdf.

[65] *See, e.g.*, *Internet Speeds by Country*, FASTMETRICS, https://www.fastmetrics.com/internet-connection-speed-by-country.php (last visited May 30, 2017); ALLIANCE FOR AFFORDABLE INTERNET, 2017 AFFORDABILITY REPORT (2017), http://1e8q3q16vyc81g8l3h3md6q5f5e.wpengine.netdna-cdn.com/wp-content/uploads/2017/02/A4AI-2017-Affordability-Report.pdf; Deborah G. Johnson, *Democratic Values and the Internet*, *in* INTERNET ETHICS 188–92 (Duncan Langford ed., 2000); Nancy Messieh, *How to Find Totally Free Unlimited Internet Access Almost Anywhere*, MUD (Feb. 9, 2017), http://www.makeuseof.com/tag/how-to-get-free-internet-service-almost-anywhere/.

[66] *See, e.g.*, Kathleen Keeling, *Retail Relationships in a Digital Age*, 66 J. BUS. RES. 847 (2013); KASEY LOBAUGH ET AL., THE NEW DIGITAL DIVIDE (2014), https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consumer-business/us-rd-thenewdigitaldivide-041814.pdf.

[67] *See generally* ERIK QUALMAN, SOCIALNOMICS: HOW SOCIAL MEDIA TRANSFORMS THE WAY WE LIVE AND DO BUSINESS (2d ed. 2013); *see also, e.g.*, Andrew Perrin, *Social Media Usage: 2005-2015*, PEW RESEARCH CENTER (Oct. 8, 2015), *http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/*; *Social Media Fact Sheet*, PEW RESEARCH CENTER (JAN. 12, 2017, http://www.pewinternet.org/fact-sheet/social-media/; Maeve Duggan & Aaron

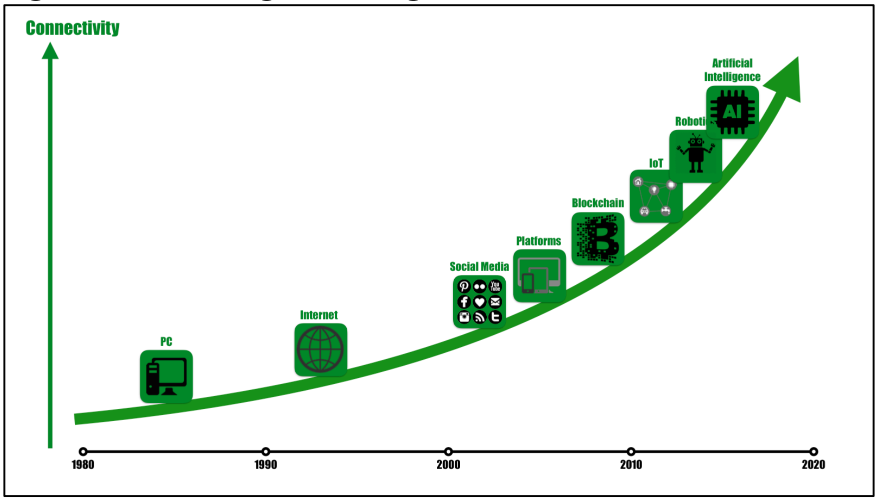
Maintaining a strong social media presence is now essential for all firms.[68] The goal of such connectivity is to build a crowd culture around a product or brand. Such a culture adds to the user experience and ensures brand loyalty.[69]

Smith, *The Political Environment on Social Media*, PEW RESEARCH CENTER (Oct. 25, 2016), http://www.pewinternet.org/2016/10/25/the-political-environment-on-social-media/; Kenneth Olmstead et al., *Social Media and the Workplace*, PEW RESEARCH CENTER (June 22, 2016), http://www.pewinternet.org/2016/06/22/social-media-and-the-workplace/; Sinan Aral et al., *Social Media and Business Transformation: A Framework for Research*, 24 INFO. SYS. RES. 3 (2013), http://pubsonline.informs.org/doi/pdf/10.1287/isre.1120.0470.

[68] *See, e.g.*, QUALMAN, *supra* note 67, at xiii–xv; Richard Hanna et al., *We're All Connected Now: The Power of the Social Media Ecosystem*, 54 BUS. HORIZONS 265, 272-73 (2011); *Jayson DeMers, The Top 10 Benefits of Social Media Marketing*, FORBES (Aug. 11, 2014, 12:24 PM), https://www.forbes.com/sites/jaysondemers/2014/08/11/the-top-10-benefits-of-social-media-marketing/#43a4cdb61f80; Peter Roesler, *5 Benefits of Social Media Business Owners Need to Understand*, INC. (Sept. 8, 2014), http://www.inc.com/peter-roesler/5-benefits-of-social-media-business-owners-need-to-understand.html. For an overview of the use of social media in marketing, see MICHAEL A. STELZNER, 2016 SOCIAL MEDIA MARKETING INDUSTRY REPORT (May 2016), https://www.socialmediaexaminer.com/wp-content/uploads/2016/05/SocialMediaMarketingIndustryReport2016.pdf.

[69] *See, e..g.*, Douglas Holt, *Branding in the Age of Social Media*, HARV. BUS. REV., Mar. 2016, at 40, https://hbr.org/2016/03/branding-in-the-age-of-social-media; Nigel Hollis, *Crowd-Culture Changes the Rules of Social Marketing . . . or Does It*?, MMG (Mar. 31, 2016), http://mandmglobal.com/crowd-culture-changes-the-rules-of-social-marketingor-does-it/; Sonja Gensler et al., *Managing Brands in the Social Media Environment*, 27 J. INTERACTIVE MARKETING 242 (2013); Bernd Schmitt, *The Consumer Psychology of Brands*, 22 J. CONSUMER PSYCHOL. 7, 11 (2012); Mohammed Reza Habibi et al., *The Roles of Brand Community and Community Engagement in Building Brand Trust on Social Media*, 37 COMPUTERS IN HUM. BEHAV. 152 (2014); Carolyn Heller Baird & Gautam Paransis, *From Social Media to Social Customer Relationship Management*, 39 STRATEGY & LEADERSHIP 30 (2011).

**Figure 3: Technological Change and the Interconnected World**




In society's increasingly interconnected infrastructure, platform companies[70] are disrupting established markets and

[70] Two of the best known platform companies are Airbnb, https://www.airbnb.com/ (last visited May 30, 2017) and Uber, https://www.uber.com/ (last visited May 30, 2017). Airbnb was founded in 2008 as an online community marketplace to connect people seeking to rent their properties with those seeking accommodations. It now has more than 2,000,000 listings in 34,000 cities and 191 countries, and it has expanded its services to include experiences as well as accommodations. Ellie Cambridge, '*Both Magical and Easy'; What Is AirBNB, How Does It Work and Why Has It Been Controversial?* SUN (Jan. 9, 2017, 6:00 PM), https://www.thesun.co.uk/news/2262225/airbnb-controversial. "With a valuation of $30 billion, the private company is worth nearly $7 billion more than the next most valuable hospitality company, publicly traded Hilton Worldwide, which has a market cap of $23.33 billion. By comparison, Airbnb is almost worth more than Hilton and Hyatt ($6.87 billion) combined ($30.2 billion)." Deanna Ting, *Airbnb's Latest Investment Values It As Much As Hilton and Hyatt Combined*, SKIFT (Sept. 23, 2016, 7:00 AM), https://skift.com/2016/09/23/airbnbs-latest-investment-values-it-as-much-as-hilton-and-hyatt-combined/. Uber, a transportation platform which provides a range of services, including black car service, low-cost rides, and meal delivery, now operates in more than 500 cities worldwide and provides 40 million monthly rides. Kia Kokalitcheva, *Uber Now Has 40 Million Monthly Rides Worldwide*, FORTUNE (Oct. 19, 2016), http://fortune.com/2016/10/20/uber-app-riders/. Other platform companies include: ETSY, https://www.etsy.com/ (last visited May 30, 2017) (an online marketplace specializing in vintage and handmade goods); Kickstarter, https://www.kickstarter.com/ (last visited May 30, 2017) (crowdfunding for creative projects); Lending Club, https://www.lendingclub.com/

challenging incumbents, including major corporations.[71] Their business model hinges on peer-to-peer transactions on or through community-based platforms. Most importantly, platform companies embrace an unmediated, flat, and inclusive culture.[72] Trust and value are created through platforms, instead of the management of workers and physical assets.[73] Figure 4 illustrates that platform companies with few assets and even fewer employees are driving the rapid growth in the new economy.

Decentralization of society's increasingly interconnected infrastructure will exponentially increase through technology. The most successful companies make extensive use of algorithms and data analytics to unmediate and decentralize the relationship between businesses and their consumers. In particular, blockchain-based smart contracts in digital marketplaces are predisposed to extend and lead these decentralization changes.[74] The expansion of the sharing

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(last visited May 30, 2017) (lending financed by investors who invest for solid returns); Open Table, https://www.opentable.com/start/home (last visited May 30, 2017 (dining reservations and reviews); SoundCloud, https://soundcloud.com (last visited May 30, 2017) (music); DogVacay (just renamed Rover), https://dogvacay.com/ (last visited May 30, 2017) (pet vacations/sitters); Spinlister, https://www.spinlister.com/ (last visited May 7, 2017) (bike sharing).

[71] *See* GEOFFREY ET AL., PLATFORM REVOLUTION 60–78 (2016); David S. Evans & Richard Schmalensee, *The Businesses That Platforms Are Actually Disrupting*, HARV. BUS. REV. (Sept. 21, 2016), https://hbr.org/2016/09/the-businesses-that-platforms-are-actually-disrupting; Martin Kenney & John Zysman, *The Rise of the Platform Economy*, 32 ISSUES IN SCI. & TECH. 61 (2016); Orley Lobel, *The Law of the Platform*, 84 MINN. L. REV. 87, 95–101 (2016).

[72] *See* Erik P.M. Vermeulen, *5 Ways Businesses Can Thrive in an Age of Disruptive Technology, a Millennial Culture and a Sharing Economy*, VENULA (Mar. 15, 2017), https://vunela.com/5-ways-business-can-thrive-in-an-age-of-disruptive-technology-a-millennial-culture-and-a-sharing-5e1db813e0fe; Mark Fenwick & Erik P.M. Vermeulen, *How the Sharing Economy Is Transforming 'Corporate Governance*,' SSRN (Apr. 3, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2945294.

[73] *See, e.g.*, Philipp Kristian, *How Do P2P Platforms Build Trust Between Strangers?*, E27 (Apr. 13, 2016), https://e27.co/how-do-peer-to-peer-platforms-build-trust-between-strangers-20160413/; Anand Iyer, *How Modern Marketplaces Like Uber and Airbnb Build Trust to Achieve Liquidity*, TC (Mar. 4, 2014), https://techcrunch.com/2014/03/04/how-modern-marketplaces-like-uber-and-airbnb-build-trust-to-achieve-liquidity/; FREDERIC MAZZELLA & ARUN SUNDARARAJAN, ENTERING THE TRUST AGE (2016), https://www.blablacar.com/wp-content/uploads/2016/05/entering-the-trust-age.pdf; Eric Piscini et al., *Blockchain: Trust Economy*, DELOITT UNIVERSITY PRESS (Feb. 7, 2017), https://dupress.deloitte.com/dup-us-en/focus/tech-trends/2017/blockchain-trust-economy.html.

[74] *See, e.g.*, Aaron Wright & Primavera De Filippi, *Decentralized Blockchain Technology and the Rise of Lex Cryptographia*, SSRN, (Mar. 10,

economy, the Internet of Things (IoT) and artificial intelligence further accelerate these developments.[75]

2015), https://ssrn.com/abstract=2580664; Marc Pilkington, *Blockchain Technology: Principles and Applications*, *in* RESEARCH HANDBOOK ON DIGITAL TRANSFORMATIONS 225-53 (F. Xavier Olleros & Majlinda Zhegu eds., 2016); Gareth William Peters & Efstathios Panayi, *Understanding Modern Banking Ledgers Through Blockchain Technologies: Future of Transaction Processing and Smart Contracts on the Internet of Money*, SSRN (Nov. 18, 2015), https://ssrn.com/abstract=2692487 or http://dx.doi.org/10.2139/ssrn.2692487; Wulf Kaal, *Blockchain Solutions for Agency Problems in Corporate Governance*, MEDIUM (Feb. 4, 2017), https://medium.com/@wulfkaal/blockchain-solutions-for-agency-problems-in-corporate-governance-a83aae03b846#.9yff4r3bn.

[75] *See, e.g.*, AUN SUDARARAJAN, THE RISE OF THE SHARING ECONOMY: THE END OF EMPLOYMENT AND THE RISE OF CROWD-BASED CAPITALISM (2016); Ben Dickson, *Decentralizing IoT Networks Through Blockchain*, TC (June 28, 2016), https://techcrunch.com/2016/06/28/decentralizing-iot-networks-through-blockchain/; Scott Amyx, *Decentralized IoT to Drive Disruption and Business Transformation*, IOT ONE (Aug. 1, 2016), https://www.iotone.com/guide/decentralized-iot-to-drive-disruption-and-business-transformation/g113; C. J. Dew, *Post Capitalism: Rise of the Collaborative Commons*, MEDIUM, (Mar. 18, 2015, https://medium.com/basic-income/post-capitalism-rise-of-the-collaborative-commons-62b0160a7048#.ar6aev65l; Trent McConaghy, *How Blockchains Could Transform Artificial Intelligence*, DATACONOMY (Dec. 21, 2016), http://dataconomy.com/2016/12/blockchains-for-artificial-intelligence/; Mark Fenwick, Wulf A. Kaal & Erik P.M. Vermeulen, *Legal Education in the Blockchain Revolution*, SSRN (Mar. 22, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2939127.

**Figure 4: Airbnb *versus* Marriott**

| Marriott | | airbnb |
|---|---|---|
| **90 years** | *Age* | **9 years** |
| **1.1 million in 110 countries** | *Rooms/Listings* | **2 million in more than 191 countries** |
| **127,500** | *Employees* | **4,227** |
| **$17.8bn** | *Valuation* | **$30bn** |
| **$0.1m** | *Value per Employee* | **$7m** |

**September 2016**

Technology applications in corporate governance are still very limited. The use of technology in corporate governance is often relegated to Internet applications and websites to disseminate information, such as annual reports.[76] Websites for corporate governance applications are in most instances investor relations websites that either are static or not very interactive. If regular updates are provided, the websites are often slow and once opened only give the viewer formalistic and legalized information. Information presented on these webpages is usually highly standardized.

The disruption of corporate governance by networks and platforms is still at a nascent stage. While technology applications in corporate governance would add tremendous value, surprisingly few workable applications exist in this area. Electronic proxies and electronic voting at annual meetings of shareholders are increasingly used by incumbents and insurgents alike.[77] Boards appreciate the

[76] *See, e.g.*, Jean Louis Bravard, *All Boards Need a Technology Expert*, HARV. BUS. REV. (Sept. 23, 2015), https://hbr.org/2015/09/all-boards-need-a-technology-expert; Sonia J. Stamm, *The Dawning of the Tech-Savvy Board*, BOARDEFFECT (Feb. 23, 2016), http://www.boardeffect.com/blog/the-dawning-of-the-tech-savvy-board/; Garry Nickson, *Tales from the U.S.: Innovations in Stakeholder Communication*, CITADEL-MAGNUS (Apr. 7, 2014), http://citadelmagnus.com/tales-from-the-us-innovations-in-stakeholder-communication/ (noting how the use of technology began to expand after the SEC ruled that social media channels such as Twitter and Facebook were legitimate platforms to disseminate price-sensitive information).

[77] *See* LISA A. FONTENOT ET AL., PRACTICAL GUIDE TO SEC PROXY AND COMPENSATION RULES §§ 13.01, 13.03, 13.05 (5th ed. & 2017 Supp.), Westlaw.

relevance and role of IT services, Internet portals, and board meeting management software in making them more efficient in performing their duties.[78]

Despite the obvious benefits of technology applications in corporate governance, the technological revolution has not yet precipitated a wide acceptance of more unmediated/decentralized corporate governance structures and practices. For instance, social media, which facilitates the real-time exchange of information, has yet to take a foothold in discussions about corporate governance. Indeed, an analysis of the 250 leading companies that appear on the *Forbes Global 2000* list[79] shows that only seven percent have a CEO who is personally active and connected on *Twitter*.[80]

Companies should care deeply about unmediated and technology-based corporate governance solutions. Traditional forms of coordination, with a focus on hierarchy, command, and control, are suboptimal for generating then innovation that allows firms to survive.[81] Inclusive and unmediated relationships among firms'

[78] *See, e.g.*, *Technology in Corporate Governance*, BOARDVANTAGE (2011), http://boardvantage.com/data-resources/white-papers/wp-tech-and-governance-2008-06-03.pdf; Camilla Braithwaite, *The Changing Role of Technology in Governance*, CORP. BD., July–Aug. 2014, at 22–26; Wan-Lik Lee, *5 Ways Board Portals Help with Corporate Governance*, CORP. COMPLIANCE INSIGHTS (Aug. 3, 2016), http://www.corporatecomplianceinsights.com/5-ways-board-portals-help-corporate-governance/. For examples of top board meeting management software, *see Top Meeting Software Products*, CAPTERRA, http://www.capterra.com/board-management-software/ (last visited May 30, 2017).

[79] The list includes the leading publicly listed companies in the world based on sales, profit, assets, and market value. Andrea Murphy, *2016 Forbes Global 2000: How We Crunch the Numbers*, FORBES (May 25, 2016, 6:45 AM), https://www.forbes.com/sites/andreamurphy/2016/05/25/how-we-crunch-the-numbers/#38447e337467.

[80] Erik P.M. Vermeulen, *How to Organize Now for Success Tomorrow . . . Winning Companies Embrace a "Tech-Driven" Corporate Culture*, MEDIUM (Feb. 20, 2017), https://medium.com/@erikpmvermeulen/how-to-organize-now-for-success-tomorrow-winning-companies-embrace-a-tech-driven-corporate-e3dd08c9e8f#.ltslgf9i1.

[81] *See, e.g.*, Tim Kastelle, *Hierarchy Is Overrated*, HARV. BUS. REV. (Nov. 20, 2013), https://hbr.org/2013/11/hierarchy-is-overrated; Lauren Leader-Chivee, *3 Secrets of Innovation That Everyone Misses*, INC. (Jan. 31, 2014), https://www.inc.com/lauren-leader-chiv%C3%A3%C2%A9e/3-secrets-of-innovation-that-everyone-misses.html; Gary Hamel, *First, Let's Fire All the Managers*, HARV. BUS. REV., Dec. 2011, at 48–60, http://tinyurl.com/77swj3x; Gary

stakeholders are increasingly necessary to enable firms to innovate and stay relevant.[82] Compared to the more control-oriented, centralized, and vertical organizational forms, inclusive and unmediated relationships among firms' stakeholders require a high degree of cooperation, loyalty, and mutual trust. Various studies suggest that a less hierarchical and more collaborative relationship between corporate boards, management, investors, and other stakeholders can promote economic growth and accelerate innovation.[83] This position was adopted in most of the recent corporate governance reform proposals,[84] acknowledging that collaboration among stakeholders is necessary to ensure that companies and their products or services remain relevant.

As the relationship between stakeholders inside and outside a company becomes unmediated and looser, a different form of coordination becomes necessary. Correspondingly, corporate

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Hamel, *Moon Shots for Management*, HARV. BUS. REV., Feb. 2009, at 91–98, http://tinyurl.com/o9r89pk. *But see* Nicolai J. Foss & Peter G. Klein, *Why Managers Still Matter*, MITSLOAN MGMT. REV. (Fall 2014), http://tinyurl.com/pzm64b4; David A. Garvin, *How Google Sold Its Engineers on Management*, HARV. BUS. REV., Dec. 2013, at 74–82, http://tinyurl.com/pe638nl.

[82] *See*, *e.g.*, Kastelle, *supra* note 81; Davi Gabriel, *Goodbye, Startup. Hello, Corporation!*, MEDIUM (Mar. 21, 2017), https://medium.com/thingsflux/goodbye-startup-hello-corporation-5d7740bf0a78; Erik P.M. Vermeulen, *How to Survive and Grow in a Digital World*, HACKERNOON (Apr. 19, 2017), https://hackernoon.com/how-to-survive-and-grow-in-a-digital-world-25baceda185d; Fenwick & Vermeulen, *How the Sharing Economy Is Transforming 'Corporate Governance*,' *supra* note 72.

[83] For an overview of empirical research on the effects of hierarchy and the factors which determine whether hierarchy helps or hurts, *see* Cameron Anderson & Courtney E. Brown, *The Functions and Disfunctions of Hierarchy*, 30 RES. ORGANIZATIONAL BEHAV. 55, 57–68 (2010). *See also* Jeffrey S. Harrison & R. Edward Freeman, *Stakeholders, Social Responsibility, and Performance: Empirical Evidence and Theoretical Perspectives*, 42 ACAD. MGMT J. 479, 479–80 (1999); Marcela Miozzo & Paul Dewick, *Building Competitive Advantage: Innovation and Corporate Governance in European Construction*, 31 RES. POL'Y 989, 990–91 (2002); James D. Westphal, *Collaboration in the Boardroom: Behavioral and Performance Consequences of CEO–Board Social Ties*, 92 ACAD. MGMT. J. 7–24 (1999); GLOBAL CORPORATE GOVERNANCE FORUM, STAKEHOLDER ENGAGEMENT AND THE BOARD: INTEGRATING BEST GOVERNANCE PRACTICES 21-23 (2009), https://www.ifc.org/wps/wcm/connect/19017b8048a7e667a667e76060ad5911/FINAL%2BFocus8_5.pdf?MOD=AJPERES; Erik P.M. Vermeulen, *Corporate Governance in A Networked* Age, 50 WAKE FOREST L. REV. 711, 716-19 (2015).

[84] *See generally* STEPHEN M BAINBRIDGE CORPORATE GOVERNANCE AFTER THE FINANCIAL CRISIS (2012). Bainbridge describes and critically analyzes the proposals noting that some "lack strong empirical or theoretical justification," *id.* at 15, and that "The federal shareholder mandates of recent years . . . chip away at the very foundations of corporate governance." *Id.* at 206.

governance structures will need to be reevaluated. The corporate governance framework is still framed in terms of hierarchy, even after recent reforms. Future corporate governance infrastructures can help build and manage more inclusive, unmediated, and open organizations with an enhanced role for technology.

### *1. Unmediated Corporate Communication*

Social media creates a greater degree of openness in corporate communications. Social media[85] represents a break with traditional forms of corporate communications in corporate organizations that have historically been closed systems characterized by a lack of transparency and information flow. Still, today only a small number of corporate CEOs, directors, or other executives are using social media.[86] However, this is a missed opportunity because those CEOs who embrace new forms of communication have in almost all cases helped the performance of their respective company or otherwise improved the company.[87]

The sense of mistrust that can emerge between investors, managers, employees, and consumers necessitates an increased emphasis in corporate communications on building and maintaining a healthy bond among stakeholders. A greater degree of openness and transparency in corporate communications can help create respect and

[85] The social media activity we refer to has less to do with corporate marketing and branding and more with the decentralization and democratization of the firm by sharing and vocalizing the ins-and-outs of its inner workings.

[86] *See, e.g.*, Andrew Nusca, *Social Media Use by CEOs Is Increasing*-Slowly, FORTUNE (Jan. 25, 2016), http://fortune.com/2016/01/25/social-media-ceo/; Matt Kapko, *Most Fortune 500 CEOs Still Sit on Social Media Sidelines*, CIO (Jan. 19, 2016, 7:44 AM PT), http://www.cio.com/article/3024233/social-networking/most-fortune-500-ceos-still-sit-on-social-media-sidelines.html; *2015 Social CEO Report*, CEO.com (2015), http://www.ceo.com/social-ceo-report-2015-report/.

[87] Joanna Belbey, *The Social CEO: Executives Are Using Social Media to Transform Firms*, FORBES (Nov. 30, 2016, 12:13 PM_, https://www.forbes.com/sites/joannabelbey/2016/11/30/the-social-ceo-executives-are-using-social-media-to-transform-firms/#3b4aae822a88; Evan LePage, *5 Non-Tech CEOs Using Social Media to Drive Business Results*, HOOTSUITE (Aug. 13, 2013), https://blog.hootsuite.com/ceos-using-social-media/; Ryan Holmes, *Yes, Even CEOs Need to Use Social Media- And They Need to Do It* Well, FAST COMPANY (Feb. 23, 2016), https://www.fastcompany.com/3056970/yes-even-ceos-need-to-use-social-media-and-do-it-well.

trust. Particularly important in this context is the unmediated and open dialogue *among* the various stakeholders. Open dialogue involves a different style of information dissemination and exchange. Open dialogue in corporate communications is not merely about sharing information,[88] but rather refers to building an on-going, unmediated, and constructive dialogue with other actors in the firm and the market that can then have a significant impact on the future relevance and performance of the company.

An unmediated dialogue is characterized by a more personalized and unpolished approach to corporate communication than a mediated dialogue. Unmediated corporate communication requires acknowledging the potential benefits that accrue from a much freer flow of information inside an organization, and also between the organization and those on the outside. The use of legalese and any substantial involvement of the legal department in corporate communications can have a substantial detrimental effect on the originality and authenticity of corporate communications, making them mediated and less effective.

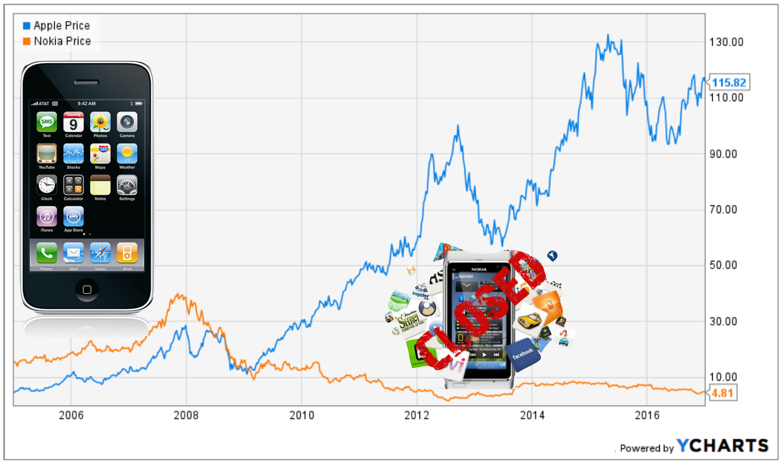
Effective – and trust-building – transparent corporate communications, including via social media, share several core elements. Such corporate communications: 1. Aim for transparency and relevancy, 2. Personalize, humanize, and communicate a distinctive story, 3. Communicate an unmediated and unpolished vision, 4. Address the "hard" issues, are vulnerable, and exhibit care, 5. Demonstrate leadership, 6. Generate "buzz," 6. Use best practices and constantly review such practices, 7. Build relationships and invite input, and 8. Communicate in a "speech-like" manner.

Unmediated corporate communications help create and maintain a corporate culture of honesty and openness. Honesty is often not valued in a centralized, hierarchical environment. In the heavily mediated and redacted corporate world, the focus is on "good news only." Nobody wants to be the messenger delivering bad news. This attitude often results in the late detection of issues and implications. Consider Nokia's failure to effectively compete in the smart-phone market (see Figure 5).[89] Middle management was discouraged from disclosing the shortcomings of Nokia's smart phone operating

[88] *I.e.*, the one-way dissemination of information from one part of the company to another, or from the company to external actors, such as investors or consumers.
[89] *See* James Surowiecki, *Where Nokia Went Wrong,* NEW YORKER (Sept. 3, 2013), http://www.newyorker.com/business/currency/where-nokia-went-wrong.

system.[90] Volkswagen's emissions issues[91] and Samsung's exploding batteries[92] scandal are among many other examples.

***Figure 5: Stock Price Development: Apple Versus Nokia***




Unmediated corporate communications create real-time feedback for corporate executives. Social media platforms enable instant feedback from the crowd, often in the form of comments, likes, and shares. Corporate executives can judge the effectiveness of their corporate communications via the social media feedback or buzz they

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[90] *See, e.g.*, *Case Study: How Nokia Lost the Smartphone Battle,* ENTERPRISE GARAGE (Dec. 3, 2015), http://www.enterprisegarage.io/2015/12/case-study-how-nokia-lost-the-smartphone-battle/; Quy Huy & Timo Vuori, *Who Killed Nokia? Nokia Did*, INSEAD KNOWLEDGE (Sept. 22, 2015), http://knowledge.insead.edu/strategy/who-killed-nokia-nokia-did-4268.

[91] *See, e.g.*, Robert Armstrong, *The Volkswagen Scandal Shows That Corporate Culture Matters,* FIN. TIMES (Jan. 13, 2017), https://www.ft.com/content/263c811c-d8e4-11e6-944b-e7eb37a6aa8e; Charles M. Elson et al., *The Bug at Volkswagen*, CLS BLUE SKY BLOG (Apr. 8, 2016), http://clsbluesky.law.columbia.edu/2016/04/08/the-bug-at-volkswagen/.

[92] *See e.g.*, Paul Mozur, *Galaxy Note 7 Fires Caused by Battery and Design Flaws, Samsung Says*, N.Y. TIMES (Aug. 22, 2017), https://www.nytimes.com/2017/01/22/business/samsung-galaxy-note-7-battery-fires-report.html; Ben Chapman, *Samsung Galaxy Note 7 Recall Has Explosive Impact on Company's Mobile Earnings,* INDEPENDENT (Oct. 27, 2016), http://www.independent.co.uk/news/business/news/samsung-galaxy-note-7-recall-exploding-phones-profits-a7382786.html.

receive. The wisdom of the crowd helps companies carefully craft their brand and identity, and a more quantifiable and data-driven approach to corporate communications helps companies make smarter decisions and enhances their know-how. Problems can be addressed more effectively based on data. Moreover, such communications enable companies to develop a more extensive and deeper network. The companies will retain more performance-related information necessary for planning and will offer a more collaborative and meaningful environment for all stakeholders.

Unmediated corporate communications facilitate vision and leadership. Today's successful companies usually have visionary and founder-type leaders. These leaders are often known for their charismatic keynote presentations that contribute largely to stakeholders' expectations and views about the future relevance of the company. Visionary leaders also deliver clear, concise, and relevant narratives/stories via unmediated communication channels, such as social media. Their companies are more likely to remain relevant in the near and distant future. Leaders with subpar presentation skills can excel in the world of social media. Social media makes it possible for every leader — irrespective of personal charisma — to become a visionary.

In the future, engaging in a more unmediated dialogue will be one of the key responsibilities of a good corporate leader. Corporate lawyers and corporate governance experts currently still discourage a more personalized and speech-like way of communicating for corporate executives. Particularly, they are reluctant to promote the use of social media by corporate executives and directors in fear of the misunderstandings that it may cause in the market and the possible subsequent liabilities. We are not aware of CEOs or other high-placed executives actively using social media to engage with stakeholders even though the use of social media, for instance, can be extremely powerful for corporate leaders. It forces them to think, articulate, and question. The content of the message can go a long way in bridging the knowledge gap between the company and its stakeholders, giving the company a "heart and soul," and ultimately aligning incentives between the company and its stakeholders.

Social media and other nontraditional forms of corporate communication are becoming an integral part of a company's governance and even its products or services. Corporate communication, corporate organization-governance, and corporate products and services are becoming inextricably linked with one another. It is thus not surprising that today's successful companies use a combination of traditional and new opportunities and possibilities for more imaginative forms of information dissemination.[93] Social media and other online media, such as blogs and YouTube videos, are becoming more and more important as a forum for disclosing information about a company.[94]

[93] *See, e.g.*, George Belch & Michael Belch, *The Role of New and Traditional Media in the Rapidly Changing Communication Environment*, 1 INT'L J. STRATEGIC INNOVATIVE MARKETING 130 (2014), www.ijsim.net/papers/item/download/82_a35998f192dd22a98a0e1dfbd239c9f7.htm; Holt, *supra* note 70; Matteo Tonello, *Corporate Use of Social Media*, HARV. L. SCH. F. CORP. GOVERNANCE & FIN. REG. (May 17, 2016), https://corpgov.law.harvard.edu/2016/05/17/corporate-use-of-social-media-2/. For examples of brands using some newer communication tools, see Ekaterina Walter, *6 of the Best Uses of Vine in Marketing*, FAST COMPANY (Oct. 9, 2013), https://www.fastcompany.com/3019652/6-of-the-most-creative-clever-uses-of-vine-in-marketing; Michelle Greenwald, *6 of the Best Marketing Uses of Virtual Reality*, FORBES (June 15, 2016, 1:30 AM), https://www.forbes.com/sites/michellegreenwald/2016/06/15/6-of-the-best-marketing-uses-of-virtual-reality/#b93bb565cff3; Lauren Johnson, *5 Bleeding Edge Brands That Are Infusing Retail with Artificial Intelligence*, ADWEEK (Jan. 2, 2017), http://www.adweek.com/digital/5-bleeding-edge-brands-are-infusing-retail-artificial-intelligence-175312/.

[94] *See* Press Release, U.S. Sec. & Exch. Comm'n, SEC Says Social Media OK for Company Announcements If Investors Are Alerted (Apr. 2, 2013), https://www.sec.gov/News/PressRelease/Detail/PressRelease/1365171513574. For an example of such an alert, see *Social Media Disclosure*, NETFLIX, http://ir.netflix.com/social-media-disclosure.cfm (last visited May 30, 2017), which states: "Investors and others should note that we announce material financial information to our investors using this investors website, SEC filings, press releases, public conference calls[,] and webcasts. We also use social media to communicate with our subscribers and the public about our company, our services [,] and other issues. It is possible that the information we post on social media could be deemed to be material information. Therefore, we encourage investors, the media, and others interested in our company to review the information we post on the U.S. social media channels listed below. This list may be updated from time to time." The list specifies: The Netflix Investor Relations YouTube Page; The Netflix Blog; The Netflix Tech Blog; The Netflix Facebook Page; The Netflix Twitter Feed; Reed Hastings' Public Facebook Page; and Reed Hastings' Twitter Feed. *See also* Richard Levick, *The Impact of the SEC's Social Media Pronouncement*, FORBES (May 15, 2013, 8:00 AM), https://www.forbes.com/sites/richardlevick/2013/05/15/the-impact-of-the-secs-social-media-pronouncement/#5dc9edb13811; Nora Ganim Barnes & Jessica Griswold, *Use of Popular Tools Remains Constant as Use of Instagram Expands Quickly Among the 2016 Fortune 500*, UMASS|DARTMOUTH (2017), http://www.umassd.edu/cmr/socialmediaresearch/2016fortune500/.

In addition to social media, an increasing number of company leaders now communicate with investors via an annual letter.[95] In many cases such letters have become more important to investors as a source of information than the official annual reports and other more conventional or traditional modes of financial communication.[96] Some evidence exists that such letters work best when written in a highly personalized, honest, and unpolished style.[97] Well-documented examples of companies that have adopted this type of approach

[95] *See, e.g.*, Jeffrey P. Bezos, *2016 Letter to Shareholders*, AMAZON (Apr. 12, 2017), https://www.amazon.com/p/feature/z6o9g6sysxur57t; Sundar Pichai, *This Year's Founders' Letter*, GOOGLE (Apr. 28, 2016), https://blog.google/topics/inside-google/this-years-founders-letter/; Larry Page, *2016 Founders' Letter*, ALPHABET (2016), https://abc.xyz/investor/founders-letters/2016/index.html; Warren E. Buffett, *Shareholder Letters*, BERKSHIRE HATHAWAY INC., (1977–2016), http://www.berkshirehathaway.com/letters/letters.html.

[96] Jennifer Schonberger, *What You Can Learn from Shareholder Letters*, KIPLINGER (Feb. 28, 2012), http://www.kiplinger.com/article/investing/T052-C000-S002-what-you-can-learn-from-shareholder-letters.html; Rob Berger, *Buffett's Letter to Berkshire Hathaway's Shareholders Puts a Bullseye on Investment Fees*, FORBES (Feb. 25, 2017, 11:00 AM), https://www.forbes.com/sites/robertberger/2017/02/25/buffetts-letter-to-berkshire-hathaways-shareholders-puts-a-bullseye-on-investment-fees/#610bf1b3fad3; Karen Berman & Joe Knight, *Financial Communication, Warren Buffett Style*, HARV. BUS. REV. (Mar. 4, 2010), https://hbr.org/2010/03/financial-communication-warren; Peter Vozzo, *How to Write Your Annual Letter to Shareholders*, WESTWICK PARTNERS (Mar. 16, 2016), http://westwickepartners.com/2016/03/how-to-write-your-annual-letter-to-shareholders/.

[97] *See, e.g.*, Selena Maranjian, *How to Pick the Best Stocks: CEO Candor Predicts Performance*, AOL (Jan. 16, 2013, 12:10 PM), https://www.aol.com/article/2013/01/16/pick-best-stocks-honest-ceo-candor/20425566/; Henry Stoever, *Shareholder Letters: An Overlooked Communications Asset,* NAT'L ASS'N CORP. DIRS. (Aug. 29, 2012), https://blog.nacdonline.org/2012/08/shareholder-letters-an-overlooked-communications-asset-2/; Schonberger, *supra* note 96; Berman & Knight, *supra* note 96; Vozzo, *supra* note 96.

include Berkshire Hathaway,[98] Netflix,[99] Faceboo*k*,[100] Salesforce,[101] and Tesla.[102]

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[98] Buffett, *supra* note 95.

[99] In 2009, Netflix founder Reed Hastings pointed out that too many corporations have "nice sounding" value statements, such as integrity, communication, respect, and excellence. Reed Hastings, *Netflix Culture: Freedom and Responsibility* 4, NETFLIX (Aug. 1, 2009), https://www.slideshare.net/reed2001/culture-1798664. In a 124-page slide deck, Hastings outlined how the dynamics of this employer-employee relationship need to be changed. The slide deck stipulates: "The *actual* company values, as opposed to the *nice-sounding* values, are shown by who gets rewarded, promoted, or let go." *Id.* at 6. This forward-thinking approach to culture helps to attract talented people, as it offers them a much greater degree of freedom and responsibility. Indeed, the opportunities afforded by such freedom and responsibility make companies attractive. In the absence of this type of culture, the best young talent will simply leave. Inside Netflix it is all about context, not control. The result is that every Netflix employee is basically treated as an entrepreneur.

[100] Other examples of "thinking out-of-the-box" social media events are Mark Zuckerberg's live Q&A to the Facebook community in June 2016 and his Manifesto posted on Facebook in February 2017. *Highlights from Q&A with Mark,* FACEBOOK:NEWSROOM (June 14, 2016), *http://newsroom.fb.com/news/2016/06/highlights-from-qa-with-mark-11/;* Adrienne LaFrance, *The Mark Zuckerberg Manifesto Is a Blueprint for Destroying Journalism*, ATLANTIC (Feb. 17, 2017), *https://www.theatlantic.com/technology/archive/2017/02/the-mark-zuckerberg-manifesto-is-a-blueprint-for-destroying-journalism/517113/;* Josh Constine, *Mark Zukerberg's Humanitarian Manifesto*, TC (Feb. 16, 2017), *https://techcrunch.com/2017/02/16/building-the-world-we-all-want/;* Mark Zuckerberg, (JUNE 8, 2016), *https://www.facebook.com/zuck/videos/vb.4/10102880633988191/?type=2&theater;* Kurt Schlosser, *Mark Zuckerberg to Host Q&A on Facebook Live—Check Out Some of the Early Questions,* GEEKWIRE (Jun. 8, 2016 at 2:41 PM), https://www.geekwire.com/2016/facebook-mark-zuckerberg-live-q-and-a/; Mark Zuckerberg, *Building Global Community,* FACEBOOK (Feb. 16, 2017), https://www.facebook.com/notes/mark-zuckerberg/building-global-community/10154544292806634/.

[101] Salesforce CEO Marc Benioff live streams presentations at the yearly Dreamforce events. *See, e.g.*, Victor Haseman, *Watch Dreamforce '16 from Anywhere with Salesforce LIVE*, SALESFORCE BLOG (Sept. 30, 2016), *https://www.salesforce.com/blog/2016/09/watch-dreamforce-16-salesforce-live.html;* Alex Konrad, *Dreamforce 2016 Live Blog Recap: Following Benioff, Will.i. am and Salesforce's Big Reveals,* FORBES (Oct. 5, 2016, 4:32 PM), https://www.forbes.com/sites/alexkonrad/2016/10/05/dreamforce-2016-live-blog-benioff-and-salesforce-make-their-reveals/#6e9d6068555f.

[102] Tesla's Elon Musk has an active presence on Twitter with more almost nine million followers. Eon Musk (@elonmusk ) TWITTER, *https://twitter.com/elonmusk*

Warren Buffet's annual letters to Berkshire Hathaway shareholders epitomize corporate communication that became an integral part of the firm's governance and product. The letters are considered a must read for anyone with an interest in the corporate world as they not only provide investors and other stakeholders with last year's financial information and future developments and growth prospects, but also include personalized business advice and insights.[103] Additionally, the Berkshire letters attract enormous attention on social media[104] and often create significant hype, which

(last visited May 25, 2017); Ann Charles, *4 Social Media Secrets You Can Learn from Elon Musk,* FASTCOMPANY (May 19, 2014, 5:22 AM), https://www.fastcompany.com/3030697/4-secrets-teslas-ceo-and-other-leaders-teach-us-about-being-social-media-savvy.

[103] For example, on active fund managers Buffett has written, "If 1,000 managers make a market prediction at the beginning of the year, it's very likely that the calls of at least one will be correct for nine consecutive years. Of course, 1,000 monkeys would be just as likely to produce a seemingly all-wise prophet. But there would be a difference: the lucky monkey would not find people standing in line to invest with him." Stephen Grocer, *Quips and Quotes from Warren Buffet's 2016 Shareholder Letter*, WALL STREET J. (Feb. 25, 2017, 12:54 PM ET), http://blogs.wsj.com/moneybeat/2017/02/25/quips-and-quotes-from-warren-buffetts-2016-shareholder-letter/ (quoting the Berkshire Hathaway 2016 investor letter). Similarly, on investing during severe market downturns he has written, "During such scary periods, you should never forget two things: First, widespread fear is your friend as an investor, because it serves up bargain purchases. Second, personal fear is your enemy. It will also be unwarranted. Investors who avoid high and unnecessary costs and simply sit for an extended period with a collection of large, conservatively-financed American businesses will almost certainly do well." *Id.* See also, Luke Kawa, *Lessons from the Oracle: Warren Buffett's Shareholder Letter, Annotated,* BLOOMBERG (Feb. 25, 2017, 7:06 AM), https://www.bloomberg.com/news/features/2017-02-25/lessons-from-the-oracle-warren-buffett-s-shareholder-letter-annotated; Stephen Grocer, *Quips and Quotes from Warren Buffet's 2015 Shareholder Letter*, WALL STREET J. (Feb. 26, 2016), https://blogs.wsj.com/moneybeat/2016/02/27/quips-and-quotes-from-warren-buffetts-2015-shareholder-letter/; Antonine Gara, *The Seven Best Quotes from Warren Buffett's Annual Shareholder Letter,* FORBES (Feb. 25, 2017), https://www.forbes.com/sites/antoinegara/2017/02/25/berkshire-hathaway-shareholder-letter-2017/#70073baa2dad; Stephen Grocer, *Quips and Quotes from Warren Buffet's 2015 Shareholder Letter*, WALL STREET J. (Feb. 26, 2016), https://blogs.wsj.com/moneybeat/2016/02/27/quips-and-quotes-from-warren-buffetts-2015-shareholder-letter/.

[104] *See Social Media's Reaction to Warren Buffet's Letter*, RITTENHOUSE RANKINGS (Mar. 8, 2013), http://www.rittenhouserankings.com/social-medias-reaction-to-warren-buffetts-letter/; http://www.cnbc.com/2017/02/24/heres-what-to-watch-for-in-warren-buffetts-annual-berkshire-hathaway-letter.html; *How to Read the Berkshire Hathaway Annual Report*, RATIONAL WALK (Feb. 27, 2015), http://www.rationalwalk.com/?p=13696.

makes the communication even more personalized, open, and effective.

### *2. Unmediated Board of Directors*

A long and drawn out academic debate tries to define the role of the board of directors. Following the 2008 Financial Crisis, most commentators saw a predominantly independent board as a necessary and dynamic wedge between the company and its insiders, on the one hand, and the capital market and investors, on the other.[105] The dominant view treats the board as supervisor/monitor of the senior managers.[106] In consequence, the board of directors tends to focus on the control of managerial misbehavior and the monitoring of company past-performance and sustainability. An alternative way of framing the issue moves beyond the control frame and emphasizes the crucial role of the board in advising and contributing to the strategic direction and future performance of a company.[107]

[105] *See, e.g*, Frederick Tung, *The Puzzle of Independent Directors: New Learning*, 91 B.U. L. Rev. 1175 (2011); Wolf-Georg Ringe, *Independent Directors After the Crisis*, 14 EUR. BUS. ORG. L. REV. 401 (2013); Bruce Dravis, *Director Independence and Corporate Governance*, BUS. L. TODAY (Nov. 2010), https://www.americanbar.org/publications/blt/2010/11/training_tomorrow.html; Usha Rodrigues, *The Fetishization of Independence*, 33 J. CORP. L. 447, 452-58 (2008).

[106] Usha Rodrigues, *A Conflict Primacy Model of the Public Board*, 2013 U. ILL. L. REV. 1051 (2013), http://digitalcommons.law.uga.edu/cgi/viewcontent.cgi?article=1902&context=fac_artchop (noting, "In the 1970s Melvin E. Eisenberg proposed reconceiving the board as an independent monitor. Eisenberg's monitoring board is now the dominant regulatory model of the board." For a history and critique of the monitoring model, see George W. Dent, *The Revolution in Corporate Governance, the Monitoring Board, and the Director's Duty of Care*, 61 B.U. L. REV. 623 (1981), http://scholarlycommons.law.case.edu/cgi/viewcontent.cgi?article=1453&context=faculty_publications; *see also, e.g.,* N. Chambers et al., *Towards a Theory for Enhancing the Performance of NHS Boards: A Synthesis of the Evidence About Board Governance, Board Effectiveness and Board Development*, 1 HEALTH SERVICES & DELIVERY RES. 13–18 (2013).

[107] *See, e.g.*, Christian Casal & Christian Caspar, *Building a Forward-Looking Board*, MCKINSEY & CO. (Feb. 2014), http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/building-a-forward-looking-board; David A. Nadler, *Building Better Boards*, 82 HARV. BUS. REV. 102 (2004), https://hbr.org/2004/05/building-better-boards; Dominic Barton & Mark Wiseman, *Where Boards Fall Short*, 93 HARV. BUS. REV. 98 (2015),

In practice, successful companies already move beyond the parameters of the academic debate. Successful companies recognize that the monitoring and advising role of the board is no longer sufficient and that the board of directors in many ways may constitute a missed opportunity for receiving feedback on company initiatives, e.g., unmediated and relevant input from the market.[108] Successful companies have included a diverse range of individuals who are expected to assist management by providing unmediated and relevant input from the market. Such market feedback is highly necessary to identify a plan to remain relevant in the future. We call such directors "feedback providers."[109] Feedback effects are essential for future companies both operationally and from a regulatory perspective.[110]

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https://hbr.org/2015/01/where-boards-fall-short; Jeffrey A. Sonnenfled, *What Makes Great Boards Great,* 80 HARV. BUS. REV. 106 (2002), https://hbr.org/2002/09/what-makes-great-boards-great.

[108] *See, e.g.*, Barton & Wiseman, *supra* note 107; Ana Dutra, *A More Effective Board of Directors,* HARV. BUS. REV. (Nov. 5, 2012), https://hbr.org/2012/11/a-more-effective-board-of-dire; Elena Bajic, *Why Companies Need to Build More Diverse Boards*, FORBES (Aug. 11, 2015, 8:00 AM), https://www.forbes.com/sites/elenabajic/2015/08/11/why-companies-need-to-build-more-diverse-boards/#3b4f6669662c; Ally Marotti, *Diversity Advocate: Boards 'Not Moving Fast Enough'* to Add Women, Minorities, CHI. TRIB. (Feb. 18, 2017, 11:18 PM), http://www.startribune.com/diversity-advocate-boards-not-moving-fast-enough-to-add-women-minorities/413906813/; *Recent Research and Surveys*, PAUL HASTINGS LLP (2016), https://www.paulhastings.com/genderparitysupplement2016/countries/recent_research.html; Deborak Rhode & Amanda Pachel, *Diversity on Corporate Boards: How Much Difference Does Difference Make?*, 39 DEL. J. CORP. L. 377 (2014), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1685615&download=yes.

[109] Almost half of the board of directors (45%) in the thirteen *S&P* 500 companies that showed an above average revenue growth over the last five years are "feedback providers" who make board decisions more data-driven. For the identity of the thirteen companies, *see* Matt Krantz, *13 Big Companies Keep Growing Like Crazy*, USA TODAY (Mar. 10, 2016, 4:21 PM ET), https://www.usatoday.com/story/money/markets/2016/03/10/13-big-companies-keep-growing-like-crazy/81544188/; Erik P.M. Vermeulen, *How to Organize Now for Success Tomorrow… Winning Companies Embrace a "Tech-driven" Corporate Culture,* MEDIUM (Feb. 20, 2017), https://medium.com/@erikpmvermeulen/how-to-organize-now-for-success-tomorrow-winning-companies-embrace-a-tech-driven-corporate-e3dd08c9e8f.

[110] *See generally* Wulf A. Kaal, *Dynamic Regulation of the Financial Services Industry*, 48 WAKE FOREST L. REV. 791 (2014); Wulf A. Kaal, *Evolution of Law: Dynamic Regulation in a New Institutional Economics Framework* 1211, *in* FESTSCHRIFT IN HONOR OF CHRISTIAN KIRCHNER (2014); Wulf A. Kaal, *Dynamic Regulation for Innovation*, *in* PERSPECTIVES IN LAW, BUSINESS AND INNOVATION (Mark Fenwick, Wulf A. Kaal, Toshiyuki Kono & Erik P.M. Vermeulen eds., forthcoming); Wulf A. Kaal, *Dynamic Regulation via Governmental Contracts* , *in* LIBER AMICORUM PETER Nobel (2014); Wulf A. Kaal, *Dynamic Regulation via*

Directors as feedback providers bring a variety of different useful backgrounds to the role. Some are technologists or technical visionaries. Often such individual directors and entrepreneurs have been responsible for product innovation or product development at companies that operate in similar markets or on the periphery of a company's core business.[111] Others may hold academic positions, particularly in the area of biotech, medicine, and engineering.[112] These backgrounds of directors as feedback providers are consistent with their invaluable role for firms in identifying issues and opportunities pertaining to disruptive innovation.

Digital technology experts as feedback directors on boards add additional value in the ever-expanding digital age. An important example of a board that includes digital technology feedback providers is The Walt Disney Company. The appointment of Sheryl Sandberg (of Facebook) and Jack Dorsey (of Twitter and Square) to the Disney board was essential in bringing the requisite social media and technology expertise to the company.[113] The inclusion of diverse

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*Contingent Capital*, 36 REV. BANKING & FIN. L. (forthcoming 2017). Kaal suggests feedback effects between regulated entities and regulators (via various mechanisms including VC investment data, blockchain applications, and contingent capital) as one important element for dynamic regulation of exponentially disruptive innovation that calls into question the continuing existence and relevance of companies.

[111] *See generally* David Finke & Miki Carlton, *The Rise of the Qualified Technical Executive in the Boardroom*, RUSSELL REYNOLDS ASSOCIATES (May 23, 2016), http://www.russellreynolds.com/insights/thought-leadership/the-rise-of-the-qualified-technology-executive-in-the-boardroom. Examples of technical visionaries in the boardroom include Robert A. Iger, CEO of The Walt Disney Co., at Apple; Satya Nadella, CEO of Microsoft, at Starbucks; Yahoo cofounder Jerry Yang at Lenovo; and Beth Comstock, Vice Chair at GE, at Nike.

[112] Examples include Daniell P. Huttenlocher, Dean and Vice Provost, Cornell Tech, Cornell University, at Amazon; Shirley Ann Jackson, President of Rensselaer Polytechnic Institute at FedEx; John Hennessy, President of Stanford University, at Google. For the role of academics on healthcare boards, *see* Timothy S. Anderson et al., *Prevalence and Compensation of Academic Leaders, Professors, and Trustees on Publicly Traded US Healthcare Company Boards of Directors: Cross Sectional Study*, BJM (Sept. 29, 2015), http://www.bmj.com/content/351/bmj.h4826. For a general analysis of the role of academics on corporate boards, *see* Graham Bowley, *The Academic-Industrial Complex*, N.Y. TIMES (Jul. 31, 2010), http://www.nytimes.com/2010/08/01/business/01prez.html.

[113] Ben Parr, *Facebook's COO to Join Disney's Board of Directors*, MASHABLE (Dec. 23, 2009), http://mashable.com/2009/12/23/sheryl-sandberg-

perspectives/data and digital feedback providers helps Disney to address contemporary business challenges and stay relevant. This approach also enables a more collaborative relationship with management and ensures that new technology perspectives are incorporated into the decision-making processes in a way that adds genuine value.

Artificial intelligence may soon become an integral part of board decision making. It is conceivable that future boards will include a seat for an artificial intelligent board member with voting authority.[114] In the not too distant future it seems feasible that artificial intelligence will have an independent board seat and may be trusted to make smarter – data-driven – choices than humans.[115]

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disney/#fOmMFFasiZqY; *Sheryl Sandberg Nominated to The Walt Disney Company Board of Directors*, BUSINESSWIRE (Dec. 23, 2009), http://www.businesswire.com/news/home/20091223005391/en/Sheryl-Sandberg-Nominated-Walt-Disney-Company-Board; Brian Solomon, *Tech Takeover: Jack Dorsey Joins Sheryl Sandberg on Disney Board*, FORBES (Dec. 23, 2013, 4:42 PM), https://www.forbes.com/sites/briansolomon/2013/12/23/twitter-billionaire-jack-dorsey-added-to-disney-board-joining-facebooks-sheryl-sandberg/#6aa751ae32e2; Anthony Ha, *Jack Dorsey Joins Disney Board of Directors*, TECHCRUNCH (Dec. 23, 2013), https://techcrunch.com/2013/12/23/jack-dorsey-joins-disney/. The board saw the expertise of Sheryl Sandberg and Jack Dorsey as: "[E]xtremely valuable, given our [*Disney's*] strategic priorities, which include utilizing the latest technologies and platforms to reach more people and to enhance the relationship we have with *Disney's* customers." *Id.*

[114] Consider the appointment of an algorithm named Vital to the board of Deep Knowledge Ventures in 2014. Ellie Zolfagharifard, *Would You Take Orders from a ROBOT? An Artificial Intelligence Will Become the World's First Company Director,* DAILY MAIL (May 19, 2014, 12:34 EDT), http://www.dailymail.co.uk/sciencetech/article-2632920/Would-orders-ROBOT-Artificial-intelligence-world-s-company-director-Japan.html; Bob Wile, *A Venture Capital Firm Just Named an Algorithm to Its Board of Directors — Here's What It Actually Does*, BUSINESS INSIDER (May 13, 2014), http://www.businessinsider.com/vital-named-to-board-2014-5; *Algorithm Appointed Board Director*, BBC (May 16, 2014), http://www.bbc.com/news/technology-27426942. Similarly, consider the appointment of an artificial intelligence, called Alicia T, as a member of the leadership team of a Finnish Software Company, Tieto, in October 2016. *Tieto First Nordic Company to Appoint Artifical Intelligence to the Leadership Team of the New Data-Driven Business Unit*, TIETO (Oct. 17, 2016), https://www.tieto.com/news/tieto-the-first-nordic-company-to-appoint-artificial-intelligence-to-the-leadership-team-of-the-new.

[115] We would like the reader to imagine the following example at a board meeting at a gaming company in the near future. The company faces a "make or break" decision that could determine the fate of the firm: Do we want to go into "augmented reality" games? Once a commitment is made, there will be no going back. This choice is existential; it will affect everything. Get it wrong and the firm may very well die. And the deadline for deciding has already passed. The board is split down the

## VI. Decentralized Corporate Governance

Corporate governance in the networked age is subject to tremendous change that transcends the traditional corporate governance discussions. Traditional corporate governance discussions pertaining to controlling managers,[116] promoting long-termism,[117] and

middle:four votes in favor and four votes against. An enormous amount of information has been gathered and perused, but endless meetings and heated discussion have failed to break the deadlock. Finally, the CEO proposes a solution. "Why not let AIMEE decide?" AIMEE is the ninth member of the board, an artificial intelligent machine, a supercomputer making decisions using state-of-the-art algorithms. The board considers the CEO's proposal. AIMEE had been trusted with decisions before, but they usually involved the processing of vast amounts of data gathered from the crowd. This time was different. This time it was a strategic choice that required a delicate balancing of multiple factors. Confident that AIMEE would make the only correct decision, the board unanimously agreed. AIMEE would deliver the casting vote. Michael Schrage, *4 Models for Using AI to Make Decisions*, HARV. BUS. REV. (Jan. 27, 2017), https://hbr.org/2017/01/4-models-for-using-ai-to-make-decisions. See generally, Sam Ransbotham, *Can Artificial Intelligence Replace Executive Decision Making*, MITSLOAN MGMT. REV. (June 28, 2016), http://sloanreview.mit.edu/article/can-artificial-intelligence-replace-executive-decision-making/; Graham Kendall, *Computers Are Knocking on the Door of the Company Boardroom*, CONVERSATION (Apr. 28, 2105, 6:54 AM EDT), http://theconversation.com/computers-are-knocking-on-the-door-of-the-company-boardroom-39512; George Dvorsky, *How Much Longer Before Companies Start to Run Themselves*, GIZMODO (Feb. 20, 2105, 3:00 PM), http://io9.gizmodo.com/how-much-longer-before-companies-start-to-run-themselve-1687015200.

[116] *See, e.g.*, Andrei Shleifer & Robert W. Vishney, *A Survey of Corporate Governance*, 52 J. FIN. 737, 740-48 (1997); Diane K. Denis, *Twenty-Five Years of Corporate Governance Research and Counting*, 10 REV. FIN. ECON. 191, 192–97 (2001); Ian Clacher et al., *Agency Theory: Incomplete Contracting and Agency Structure*, *in* CORPORATE GOVERNANCE: A SYNTHESIS OF THEORY RESEARCH AND PRACTICE 141–48 (H. Kent Baker & Ronald Anderson eds., 2010).

[117] *See, e.g.*, Roger L. Martin, *Yes, Short-Termism Really Is a Problem*, HARV. BUS. REV., Oct. 9, 2015, at 2; J.B. Heaton, *The 'Long Term' in Corporate Law*, SSRN (Jan. 6, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2864906; Dominic Barton et al., *Rising to the Challenge of Short-Termism*, FCLTGLOBAL (2016), http://www.fcltglobal.org/docs/default-source/default-document-library/fclt-global-rising-to-the-challenge.pdf?sfvrsn=0; DOMINIC BARTON ET AL., MEASURING THE ECONOMIC IMPACT OF SHORT-TERMISM (Feb. 2017), http://www.mckinsey.com/search?q=%22measuring%20the%20economic%20impact%20of%20short-termism%22; Alana Semuels, *How to Stop Short-Term Thinking at America's Companies*, ATLANTIC (Dec. 20, 2016),

independent boards[118] are replaced by considerations more suitable for the digital and networked age. Such considerations include: the role of social media,[119] flatter and open organizations,[120] and, in the not too distant future, artificial intelligence.

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https://www.theatlantic.com/business/archive/2016/12/short-term-thinking/511874/; Bartosz Olesinski et al., SHORT-TERMISM IN BUSINESS: CAUSES, MECHANISMS AND CONSEQUENCES, EY (2014), http://www.ey.com/Publication/vwLUAssets/EY_Poland_Report/$FILE/Short-termism_raport_EY.pdf; *Long Termism Versus Short-Terminism: Time for the Pendulum to Shift*, INSTITUTIONAL INVESTOR (June 23, 2016), shttp://www.institutionalinvestor.com/Article/3561771/Long-Termism-Versus-Short-Termism-Time-for-the-Pendulum-to-Shift.html?ArticleId=3561771&p=1#.WQo8MdLyuUk.

[118] Lucien A. Bebchuck & Michael S. Weisback, *The State of Corporate Governance Research* 6–10 (Nat'l Bureau of Econ. Research, Working Paper No. 15537, 2009), http://www.nber.org/papers/w15537.pdf; Donald C. Clarke, *Three Concepts of the Independent Director*, 32 DEL. J. CORP. L. 73 (2007), http://www.djcl.org/wp-content/uploads/2014/08/Three-Concepts-of-the-Independent-Director.pdf; MILLSTEIN CENTER FOR CORPORATE GOVERNANCE AND PERFORMANCE, YALE SCHOOL OF MANAGEMENT, CHAIRING THE BOARD (2009), http://web.law.columbia.edu/sites/default/files/microsites/millstein-center/2009%2003%2030%20Chairing%20The%20Board%20final.pdf; Steven Davidoff Solomon, *The Case Against Too Much Independence on the Board*, N.Y. TIMES (Nov. 11, 2013, 10:42 AM), https://dealbook.nytimes.com/2013/11/11/the-case-against-too-much-independence-on-the-board/; David F. Larcher & Brian Tayan, *Seven Myths of Boards of Directors*, STAN. GRADUATE SCH. BUS., (Oct. 12, 2015), https://www.gsb.stanford.edu/insights/seven-myths-boards-directors.

[119] *See, e.g.*, Santiago Chaker & James David Spellman, *Corporate Governance and Social Media: A Brave New World*, PRIV. SECTOR OPINION, Issue 27, 2012, at 3, https://www.ifc.org/wps/wcm/connect/beb846804bb6a07da69ce71be6561834/PSO_27_Social_Media.pdf?MOD=AJPERES; Saeed Roohani & Sharmin Attaran, *New Challenges and Opportunities for Corporate Governance*, 11 J. INT'L DISCLOSURE & GOVERNANCE 366 (2014); Christian Pieter Hoffmann & Christoph Lutz, *The Impact of Online Media on Stakeholder Engagement and the Governance of Corporations*, 15 J. PUB. AFF. 163 (2015); Mark Fenwick, Wulf A. Kaal & Erik P. M. Vermeulen, *Regulation Tomorrow: What Happens When Technology Is Faster Than the Law?*, AM. U. BUS. L. REV. (forthcoming 2017), (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2834531); Wulf A. Kaal & Erik P.M. Vermeulen, *How to Regulate Disruptive Innovation – From Facts to Data, Jurimetrics*, J. L. SCI. & TECH. (forthcoming 2017), (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2808044); Mark Fenwick, Wulf A. Kaal & Erik P.M. Vermeulen, *Legal Education in the Blockchain Revolution* (Mar. 22, 2017), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2939127; Erik P.M. Vermeulen, *Corporate Governance in the Networked Age*, 20 WAKE FOREST L. REV. 711 (2015).

[120] Mark Fenwick & Erik P.M. Vermeulen, *The New Firm: Staying Relevant, Unique and Competitive*, 16 EUR. BUS. ORG. L. REV. 595 (2015), https://hbr.org/2013/11/hierarchy-is-overrated (discussion how flat organizational

Critics who argue that it is pointless to concern oneself with future science-fiction-type prospects are wrong. The use of artificial intelligence on boards is a real prospect,[121] and multiple new technologies, including blockchain-based smart contracts, are predestined disrupt corporate governance but may at the same time provide solutions.[122]

The governance structure of a digital decentralized autonomous organization (DAO) founded in May 2016 gives some guidance about possible future corporate governance solutions. The DAO founders[123] originally intended to create a corporate-type organization without using a conventional centralized structure. The DAO was completely decentralized and did not have a physical address as it consisted completely of computer code and an array of

structures can succeed in diverse environments); Jacob Morgan, *The 5 Types of Organizational Structure: Part 2, 'Flatter' Organizations*, FORBES (July 8, 2015, 12:08 AM), https://www.forbes.com/sites/jacobmorgan/2015/07/08/the-5-types-of-organizational-structures-part-2-flatter-organizations/#5663bbdb6dac; Dabrina Humphreville, *Flat(ter) Organizational Structures – As Successful As Expected?* POST*SHIFT (Sept. 11, 2015), https://postshift.com/flatter-organisational-structures-as-successful-as-expected/; Julie Wulf, *The Flattened Firm: Not As Advertised*, 55 CAL. MGMT. REV. 5 (2012), http://www.people.hbs.edu/jwulf/CMR_FlattenedFirm.pdf; Mark Fenwick, Wulf A. Kaal & Erik Vermuelen, *The New Corporate Governance of Today's Successful Companies*, CLS BLUE SKY BLOG (Apr. 13, 2017), http://clsbluesky.law.columbia.edu/2017/04/13/the-new-corporate-governance-of-todays-successful-companies/; CORPORATE GOVERNANCE IN A CHANGING FINANCIAL AND REGULATORY LANDSCAPE; REPORT OF THE FINDINGS OF THE 17TH EUROPEAN CORPORATE GOVERNANCE CONFERENCE THAT TOOK PLACE IN LUXEMBOURG ON 15 DECEMBER 2015, at 7–8 ((Luxembourg Public Policy Whitepaper, vol. 13, 2016), http://www.ecgi.org/presidency/luxembourg2015/Luxembourg-Public-Policy-Whitepaper_V13.pdf.

121 *See supra* note *114.*

122 See Wulf Kaal, *Blockchain Solutions for Agency Problems in Corporate Governance*, MEDIUM (Feb. 4, 2017), https://medium.com/@wulfkaal/blockchain-solutions-for-agency-problems-in-corporate-governance-a83aae03b846.

123 Christoph Jentzsch, the co-founder of the IoT company *Slock.it*, was one of the "key founders" of a digital decentralized autonomous organization. *See* Christoph Zentsch, *'Blessing and a Curse': The DAO's Developers on Blockchain in 2016*, COINDESK (Dec. 27, 2016, 13:27 BST), http://www.coindesk.com/blessing-and-a-curse-the-daos-developers-on-blockchain-in-2016/.

smart contracts.[124] Indeed, the DAO had no directors, managers, or employees. The governance structure was built with software, code, and smart contracts that ran on a public decentralized blockchain platform, *Ethereum*.[125]

The automated DAO structure was intended to give DAO participants direct real-time control over contributed funds. Everyone could become a participant by purchasing DAO tokens during a crowdfunding campaign in May 2016. The DAO raised more than $168 million from approximately 10,000 investors.[126] Like shares in a traditional listed corporation, DAO tokens were designed to be fully transferable and tradable on "peer-to-peer" exchanges.[127] A series of smart contracts granted token holders voting rights. In this respect, the blockchain-based smart contract mimics the role of articles of incorporation or bylaws. Since the code of the DAO was open source, the token holders would vote on any change made to the code.[128]

The initial DAO did not end well, but DAO enthusiasts and coders are developing new structures to address the flaws of the existing DAO infrastructure. Fundamental flaws in the DAO code made it possible for hackers to transfer one third of the total contributed funds to a subsidiary account.[129] This, and other

[124] Brent Miller, *Smart Contracts and the Role of Lawyers (Part 2) – About Code Is Law*," BIG LAW KM (Oct. 22, 2016), https://biglawkm.com/2016/10/22/smart-contracts-and-the-role-of-lawyers-part-2-about-code-is-law/; Clint Finley, *A $50 Million Hack Just Showed That the DAO Was All Too Human*, WIRED (June 18, 2016, 4:30 AM), https://www.wired.com/2016/06/50-million-hack-just-showed-dao-human/.

[125] *See* ETHERIUM, https://www.ethereum.org/ (last visited May 5, 2017); Finley, *supra* note 124.

[126] Cade Metz, *The Biggest Crowdfunding Project Ever—the DAO—Is Kind of a Mess*, WIRED (June 6, 2016, 7:00 AM), https://www.wired.com/2016/06/biggest-crowdfunding-project-ever-dao-mess/.

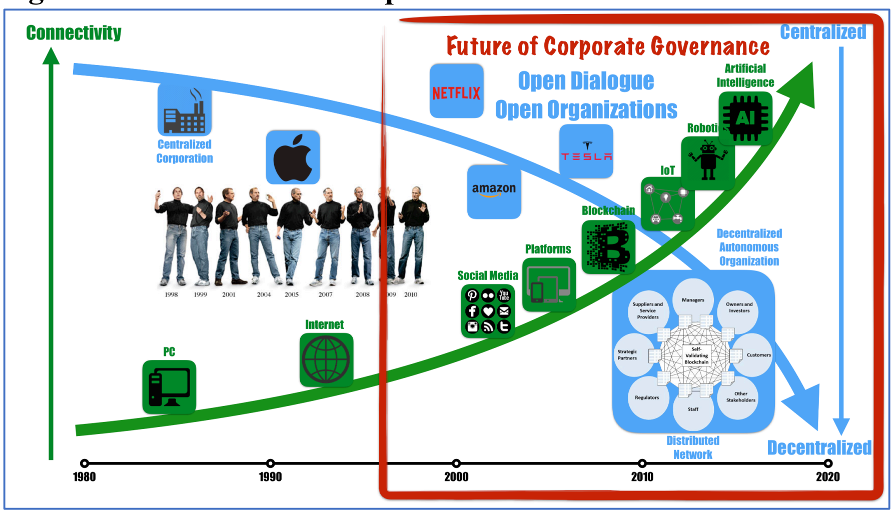
[127] *All About DAOs*, BTC MARKETS, https://btcmarkets.net/about-dao (last visited May 5, 2017); *How to Create DAO Tokens*, FRANTO4BLOGSPOT (May 23, 2016), http://franto4.blogspot.com/2016/05/how-to-create-dao-tokens.html.

[128] Christoph Jentzsch, *Decentralized Autonomous Organization to Automate Governance* 10, https://download.slock.it/public/DAO/WhitePaper.pdf (last visited May 5, 2017); Metz, *supra* note 126; Michael del Castillo, *The DAO Crisis: Or How Vigilantism and Blockchain Democracy Became the Best Hope for Burned Investors*, COINDESK (July 13, 2016, 16:05 BST), http://www.coindesk.com/author-daos-original-code-minimize-regulatory-backlash/.

[129] *See, e.g.,* Nathaniel Popper, *A Hacking of More Than $50 Million Dashes Hopes in the World of Virtual Currency*, N.Y. TIMES (June 17, 2016), https://www.nytimes.com/2016/06/18/business/dealbook/hacker-may-have-removed-more-than-50-million-from-experimental-cybercurrency-project.html?_r=0; *Not-So-Clever Contracts*, ECONOMIST (July 28, 2016),

technological limitations, meant the end of the initiative, but it does not mean the end of this vision of DAOs.[130] Future DAOs will operate non-profits and charities.[131] The possibility to make donations and provide aid without the interference of bureaucratic authorities and institutions sets the stage for further corporate governance developments in a blockchain platform (see Figure 6).

**Figure 6: The Future of Corporate Governance**




http://www.economist.com/news/business/21702758-time-being-least-human-judgment-still-better-bet-cold-hearted.

[130] In January 2017, Christoph Jentzsch, a founder of the first DAO, compared the development of DAOs with the development of planes able to transport humans. Like building airplanes for human flight, the desire to build flat, unmediated, decentralized, and fully democratized companies will not be stopped by setbacks. Christoph Jentzsch, *The Company Which Consists Only of Computer Code*, YOUTUBE (Jan. 9, 2017), https://www.youtube.com/watch?v=EJrPW3254wg&feature=youtu.be (13 minutes 22 seconds in).

[131] Christoph Jentzsch announced his next project in this context. *Id. See also* Dani Gas, *Christoph Jentzsch Announced a New Project Called the Charity DAO*, INFOCOIN (Nov. 22, 2016), http://infocoin.net/en/2016/11/22/christoph-jentzsch-announced-a-new-project-called-the-charity-dao/; Christoph Jentzsch, *Charity DAO*, DAOHUB (Nov. 18, 2016), https://blog.daohub.org/charity-dao-2866758669a4#.d1lbodjei; Jamie Redman, *Charity DAO Gives the Original DAO a Second Chance*, BITCOINCOM (Nov. 21, 2016), https://news.bitcoin.com/charity-dao-second-chance/.

## VII. Outlook

Contemporary corporate governance reforms are unlikely to work as intended by policymakers and regulators. While a general consensus among corporate governance experts suggests that improvements in corporate governance are necessary, widespread disagreement exists as to what good corporate governance entails or how it might be achieved. Contemporary corporate governance frameworks developed in the 2000s had little or no impact on the performance of listed companies during the last financial crisis. Moreover, the number, scale, and effects of corporate scandals and economic failures do not appear to be diminishing. Additional recent corporate governance reforms generally recognize the shortcomings in the current debate and put greater emphasis on long-term value creation. Yet, current reforms largely ignore the trend from a centralized to a decentralized, unmediated, and interconnected world.

Regulators should nudge both companies and their stakeholders into recognizing the benefits, both strategic and financial, of adopting an unmediated and technology-based approach to corporate governance. Horizontal, open, and autonomous networks are replacing corporate hierarchies. This process has been initiated and further accelerated by rapid technological change enabled by social media, blockchain-based smart contracts, DAOs, and artificial intelligence. Given these changes, companies must embrace unmediated and technology-driven governance practices to be successful tomorrow. Today's successful companies embrace these insights and therefore have a competitive advantage in attracting talent, raising capital, finding suitable partners, and, perhaps most importantly, in remaining relevant in hyper-competitive global markets.