

## COMPLIANCE IN THE AGE OF CONNECTIVITY

### EXTENSION OF REMARKS TO THE SYMPOSIUM ON NEW DIRECTIONS IN CORPORATE COMPLIANCE

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#### I. INTRODUCTION

Cultures of compliance have received considerable attention over the years from regulators, compliance professionals, and academics. Regulators have constantly advocated for the development of strong cultures of compliance within regulated firms.<sup>1</sup> For example, in his excellent and thought-provoking luncheon remarks at this symposium, Andrew (“Buddy”) Donohue, now a regulator, and formerly a compliance professional, described how he could become comfortable in a compliance role; the culture of the firm in which he functioned evidently played an important role. In addition, academics have studied organizational culture and its impact on compliance.<sup>2</sup> It is a pleasure to serve on a panel with two of the leading contributors to this growing

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1. See, e.g., Aulana L. Peters, Comm’r, SEC, Address to Brooklyn Law School’s Securities Regulation Symposium: Investor Protection: The First Line of Defense (Mar. 15, 1985), in 1985 SPEECHES BY SEC OFFICIALS (available in SEC Library).

2. See generally Milton C. Regan, Jr., *Moral Intuitions and Organizational Culture*, 51 ST. LOUIS U. L.J. 941 (2007).

body of work: Donald Langevoort of Georgetown University and Greg Urban of the University of Pennsylvania.

Despite all of this attention, we have reached an apt moment to reconsider cultures of compliance. Looking to the future, as our host Arthur Laby of Rutgers Law School has invited us to do, one can see significant challenges taking shape. Developments in the wider world could eventually—strike that, *will* eventually—pose fundamental challenges to the culture of compliance as it is understood today. In his 2016 book, *The Industries of the Future*, Alec Ross subtitles a chapter, “World leaders take notice: the 21st century is a terrible time to be a control freak.”<sup>3</sup> In his conversations with foreign heads-of-state—Ross served for several years as Senior Advisor for Innovation to the United States Secretary of State—he encountered a recurring theme: when he asked what one thing had most changed over the previous fifteen years, the heads-of-state almost always cited a perceived loss of control.<sup>4</sup> Through connection technologies, including the Internet and social media, citizens and networks of citizens have obtained information and power previously reserved to large hierarchies, such as media companies and governments.<sup>5</sup> As Ross suggests, a key question going forward, which will greatly affect each state’s economic character and performance, will be how it responds to this systemic loss of control and diffusion of power.<sup>6</sup> Will a state be able to handle the open access, globalization, and constant innovation of the new century? One could ask the same questions about corporate compliance.

Compliance, as it is understood today, developed in an age of hierarchical power and control. Compliance professionals have spent decades developing and refining the command-and-control methodologies possible within hierarchical structures.<sup>7</sup> When the electronics revolution arrived it ended up reinforcing compliance (after an initial period of uncertainty) as more transactional information and communications flowed through controlled channels where they could be captured and monitored.<sup>8</sup> Even today, this process of enhancement continues, as bigger data sets and more powerful analytics promise

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3. ALEC ROSS, *THE INDUSTRIES OF THE FUTURE* 186 (2016).

4. *Id.* at 215.

5. *Id.* at 199–202 (discussing Pakistani woman who used the internet to start a business).

6. *Id.* at 215.

7. *See id.* at 965.

8. *See, e.g.*, John H. Walsh, *Big Data and Regulation, Part I: The Regulators; Regarding Regulation*, CORP. COUNS. (May 6, 2014) [hereinafter Walsh, *Part I*], <http://www.corpcounsel.com/id=1202653950093/Big-Data-and-Regulation-Part-1-The-Regulators?slreturn=20170216230801>.

even better compliance.<sup>9</sup> Nonetheless, looking ahead, connectivity is approaching a looming inflection point, and compliance will be challenged by the same loss of control and diffusion of power faced by heads-of-state.<sup>10</sup> How will compliance respond in the looming Age of Connectivity? What will compliance oversight be like when employees feel a loose connection with their employer (not least because many of them will be independent contractors) and yet carry in their hands mobile computers—often called smartphones—that keep them in constant and private contact with dense personal networks transcending any operational controls imposed by the firm? These are not theoretical questions. The future has already begun to arrive.

## II. RIVER ROUGE AND THE ORIGINS OF COMPLIANCE

When compliance was first created in the 1960s and 1970s, the world economy was based on large-scale manufacturing.<sup>11</sup> The height of economic prowess was embodied in the assembly plant.<sup>12</sup> If one wanted to form a visual image of what this meant, there would be none better than the River Rouge assembly plant outside of Detroit.<sup>13</sup> The factory was huge, measuring a mile-and-a-half long and a mile wide.<sup>14</sup> Its core structure had won architectural awards as a humane facility, mostly because of the glass that allowed natural lighting to enter the workspace.<sup>15</sup> Schoolchildren, including the author of this essay, studied the facility as emblematic of modern society's progress and economic development. Most important, though, was what the facility contained—a vast and powerful assembly line.<sup>16</sup> Machines and assembly line employees worked in tandem—in such rapid action that the human eye would have difficulty distinguishing between the two—and turned out vast numbers of precisely manufactured goods.<sup>17</sup> In the

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9. *Id.*

10. See ROSS, *supra* note 3, at 215.

11. See Stephen Meyer, *The Degradation of Work Revisited: Workers and Technology in the American Auto Industry, 1900-2000*, AUTOMOBILE AM. LIFE & SOC'Y, [http://www.autolife.umd.umich.edu/Labor/L\\_Overview/L\\_Overview.htm](http://www.autolife.umd.umich.edu/Labor/L_Overview/L_Overview.htm) (last visited Mar. 1, 2017).

12. *See id.*

13. *See Ford Rouge Factory Tour: History & Timeline*, HENRY FORD, <https://www.thehenryford.org/visit/ford-rouge-factory-tour/history-and-timeline/> (last visited Mar. 1, 2017).

14. *Id.*

15. *Id.*

16. Lindsay-Jean Hard, *The Rogue: Yesterday, Today, & Tomorrow*, U. MICH., <http://www.umich.edu/~econdev/riverrouge/> (last updated Dec. 4, 2005, 10:06 PM).

17. *See id.*

River Rouge's case, the final products were high-end automobiles.<sup>18</sup>

Within the factory, the shop floor was only the bottom layer of a vast organizational structure that made the assembly plant possible.<sup>19</sup> Standing behind the workers were supervisors, and behind the supervisors—in an organizational, if not literal, sense—were managers, and behind the managers were executives, in a command-and-control structure reaching from the shop floor to the executive suites.<sup>20</sup> Viewed as a pyramid, information flowed up the structure from the vast shop floor, and commands and controls flowed down from the executive suite through increasingly expansive ranks of middle management.<sup>21</sup> The result was a precise and highly structured pyramidal organization that ensured consistent and optimal output on the shop floor.<sup>22</sup>

Not surprisingly, when compliance was created it was made in this image. The Securities and Exchange Commission first established compliance in the 1960s as the result of a special study of the securities markets,<sup>23</sup> and first gave it concrete shape in the 1970s, through the work of an Advisory Committee that the agency organized and sponsored.<sup>24</sup> By the 1980s, robust compliance systems could be found throughout the securities business and had begun to spread to other sectors of the economy. Many of the compliance controls developed in those early days are still in use today.<sup>25</sup> Moreover, contemporaries visualized this compliance regime in the same pyramidal shape that characterized the structure of corporate control.<sup>26</sup> In 1985 a commissioner of the SEC likened compliance to a pyramid in which the federal regulator was at the top, self-regulators were in the middle, and compliance practitioners were on the bottom.<sup>27</sup> In such a hierarchy, the commissioner said, compliance served as the front-line for the higher-

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18. *See id.*

19. *See id.*

20. *See id.*

21. *See id.*

22. *See id.*

23. SEC. & EXCHANGE COMM'N, REPORT OF THE SPECIAL STUDY OF THE SECURITIES MARKETS OF THE SECURITIES AND EXCHANGE COMMISSION, H.R. DOC. NO. 95, PT. 1, at 4 (1963).

24. Guide to Broker-Dealer Compliance: Report of the Broker-Dealer Model Compliance Program Advisory Committee to the Securities and Exchange Commission, Exchange Act Release No. 11,098, 5 SEC Docket 472 (Nov. 13, 1974). A copy of the full report is available in the SEC Library.

25. *See* Miriam Hechter Baer, *Governing Corporate Compliance*, 50 B.C. L. REV. 949, 962-63 (2009).

26. *See* SEC. & EXCHANGE COMM'N, ANNUAL REPORT, 41ST, OF THE SEC FOR THE FISCAL YEAR ENDED JUNE 30, 1976, at iv (1974) [hereinafter ANNUAL REPORT].

27. Peters, *supra* note 1, at 7.

ups, including, presumably, SEC Commissioners at the very top.<sup>28</sup> The image is striking: the lowest level is the front line for the top, suggesting all are part of the same command-and-control structure. Regulators, self-regulators, and compliance practitioners were all part of the same hierarchical pyramid.

In retrospect, it can be seen that certain unstated assumptions played an important role in the River Rouge approach to compliance. Five in particular warrant note. First, perhaps most importantly, there was a defined shop floor. Whether it was a sales office, trading desk, or some other setting, the work to be controlled took place within a physically bounded location.<sup>29</sup> Someone working in compliance could point to the controlled location and the boundary line where the zone of control ended.<sup>30</sup> Second, supervisors could observe operations within that location.<sup>31</sup> In the early days, much of this was in-person: a supervisor stood or sat in close proximity to the operations being supervised, much as a supervisor in the River Rouge actually watched the work being done.<sup>32</sup> In time, it became less personal but always subject to the assumption that the supervisor continued to enjoy an equivalent power of observation. In many cases a concern of the modern supervisor concerned with preserving his or her power of observation across increasingly complex and diffuse organizational structures. Third, relevant business operations, such as communications with customers, could be captured and assessed for conformity to defined standards.<sup>33</sup> Regulatory standards, still in effect today, reflect this heritage when they require firms to preserve copies of written communications sent and originals of communications received.<sup>34</sup> The words used in the regulation—"copies" and "originals"—have a diminished meaning in our increasingly electronic world. Nonetheless, the regulations' unstated assumption, that relevant communications should be captured, retained, and monitored, remains in place. Fourth, firms had the power to sanction defective output, up to and including the most devastating measure of control: termination from employment and possibly from a line of business (pursuant to a regulatory bar).<sup>35</sup> Fifth, and finally, contained within these assumptions, usually

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28. *See id.* at 8–9.

29. *See* ANNUAL REPORT, *supra* note 26, at 5–8.

30. *See id.*

31. *See id.*

32. *See* Hard, *supra* note 16.

33. *See id.* at 49–68.

34. *See, e.g.*, 17 C.F.R. § 240.17a-4(b)(4) (2016).

35. *See* Release No. 11098, *supra* note 26, at 19–20.

unstated, perhaps even unrecognized, lurked a vision of the business organization as another River Rouge. Operations, according to this view, proceed along a linear route, much like an assembly line, with inputs added in an orderly fashion at discreet points along the critical path. To this day, one often hears the word “industry” used as a synonym for business, even when the business in question has nothing to do with the assembly of physical goods.<sup>36</sup>

What was the point of this model of compliance? In a word, it could be called “conformity.” This is not intended as an insult. In French, “compliance” is translated as “conformité,” or, conformity.<sup>37</sup> The word may summon images of identical teenagers submitting to peer pressure but seen from the perspective of the River Rouge it makes sense. The fundamental purpose of the controls imposed on the shop floor was to avoid non-conforming output.<sup>38</sup> Here again, the experience of compliance has been similar.

To understand the relationship between conformity and compliance, it would help to consider another term used by Alec Ross in the subtitle cited above: “control freaks.”<sup>39</sup> Turning to an emblematic information source for the Age of Connectivity, *Wikipedia*, a control freak is someone who “attempts to dictate how everything is done around them.”<sup>40</sup> At least according to *Wikipedia*, being a control freak seems to be associated with some unpleasant psychological conditions, such as a tendency to micro-management and feelings of inner vulnerability.<sup>41</sup> The name is not flattering, but the meaning is appropriate. For the River Rouge to work the way it did, precise micro-managed conformity was necessary.<sup>42</sup> If one piece was the wrong size, or mounted incorrectly, the next piece wouldn’t fit, with cascading implications down the assembly line. Inner vulnerabilities among production workers (inattention, boredom, a hangover, distraction by the operator of the next machine) must be controlled. Similarly, if a business function subject to compliance (say, for example, selling securities), produces defective output (say, to follow the example, selling securities

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36. The author confesses to making this assumption himself, having entitled one of his early essays, *Right the First Time: Regulation, Quality and Preventive Compliance in the Securities Industry*, 1997 COLUM. BUS. L. REV. 165 (1997).

37. Translation of Conformity, GOOGLE TRANSLATE, <https://translate.google.com/?hl=en&tab=IT> (type “conformity” into the text box) (last visited Mar. 1, 2017).

38. See Meyer, *supra* note 11.

39. ROSS, *supra* note 3, at 217.

40. *Control Freak*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Control\\_freak](https://en.wikipedia.org/wiki/Control_freak) (last visited Nov. 11, 2016).

41. See *id.*

42. See Meyer, *supra* note 11.

that are unsuitable for a buyer), cascading negative consequences could be expected in the buyer's financial life and ultimately in the legal and regulatory repercussions visited on the selling firm.<sup>43</sup> Here again, inner vulnerabilities in the sales force (greed, unwarranted enthusiasm, lack of diligence, lack of curiosity about the buyer) must be controlled. Perhaps control freaks created the River Rouge, but their efforts allowed massively complex industries and businesses to flourish.<sup>44</sup> Indeed, the control freaks of the twentieth century made it possible to deliver precise and conforming outputs, including compliance outputs, over vast scales, new technologies, widespread operations, and sophisticated designs.<sup>45</sup> This achievement should not be forgotten. Nonetheless, one must wonder: how will this organizational culture fare in the twenty-first century?

### III. THE ELECTRONICS REVOLUTION

Over the last several decades the world has experienced a revolutionary transformation driven by electronics. Records have been moved from paper to electronic media, access to records has been automated (in this sense access is understood as any means of searching and retrieving data), and communications have increasingly migrated from paper to electronics. Different approaches for measuring the stunning growth in electronics abound. In one approach, electronic data usage is compared to the data contained within the pages housed within the Library of Congress.<sup>46</sup> Since the paper-based Library of Congress occupies several buildings in Washington D.C., including the Madison Building, one of the largest in the city, this can be understood to mean a lot of data.<sup>47</sup> Yet, data sets of this size have entered business and regulation. In a recent enforcement case brought by the SEC, the

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43. See, e.g., FIN. INDUS. REGULATORY AUTH., FINRA MANUAL § 2111 (2014), [http://finra.complinet.com/en/display/display.html?rbid=2403&element\\_id=9859](http://finra.complinet.com/en/display/display.html?rbid=2403&element_id=9859); Norman S. Posner, *Liability of Broker-Dealers for Unsuitable Recommendations to Institutional Investors*, 2001 B.Y.U. L. REV. 1493, 1494–1501 (2001).

44. See Morris Tanenbaum & William K. Holstein, *Mass Production*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/technology/mass-production> (last visited Mar. 1, 2017).

45. See *id.*

46. See e.g., Stewart Bishop, *'Big Short' Money Manager Lobs New Claims over SEC Courts*, LAW360 (Apr. 2, 2015, 5:40 PM), <https://www.law360.com/articles/638793/big-short-money-manager-lob-new-claims-over-sec-courts> (discussing money manager's complaint that the Division of Enforcement's file is "the size of the entire Library of Congress").

47. *Library of Congress*, WIKIPEDIA, [https://en.wikipedia.org/wiki/Library\\_of\\_Congress](https://en.wikipedia.org/wiki/Library_of_Congress) (last visited Mar. 1, 2017).

staff compiled an investigative record of eleven terabytes, equal in size to the amount of data stored on paper-based records in the Library of Congress.<sup>48</sup> In another approach, the computational power available to NASA during the Apollo program—landing astronauts on the moon was a triumph of 1960s era manufacturing—is compared to a modern Smartphone.<sup>49</sup> The conclusion: each handheld Smartphone has millions of times the computational power available to NASA (in total, not just on the spacecraft) at the time of the moon landings.<sup>50</sup> Finally, an electronic service firm recently estimated that as of 2009, e-mail usage outnumbered paper mail usage by a factor of eighty-nine to one.<sup>51</sup> Regulations citing to “copies” and “originals” are not completely obsolete, but the trend is clear.<sup>52</sup> However one chooses to illustrate the growth of electronics in our society, the reality of the transformation is inescapable.

The electronics revolution has also had a dramatic impact on compliance. As early as the 1970s, in the revolution’s earliest days, compliance was an early adopter. The report of the 1970s era advisory committee, sponsored by the SEC, indicated that compliance was already using automated data processing, with runs of trades and other outputs being used to help monitor firms’ activities.<sup>53</sup> Since then compliance has used electronics to achieve levels of collection and monitoring undreamed of in the paper-based world of the past. By way of illustration, while serving as a regulator, the author of this essay once had occasion to review the method by which the SEC had recorded examinations in the 1960s. Examiners used index cards with pre-

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48. As of this writing, the matter is on appeal from an Administrative Law Judge to the Commission, including the question of what due process protections a respondent should receive when confronted with an administrative record of this magnitude. See Respondents’ Petition for Interlocutory Review and Emergency Motion to Stay the Hearing and Prehearing Deadlines at 2, Harding Advisory LLC, Admin. Proc. No. 3-15574 (filed Feb. 27, 2014), <https://www.sec.gov/litigation/apdocuments/3-15574-event-47.pdf> (last visited Nov. 16, 2016). Oral argument was scheduled for August 2016. See Order Rescheduling Oral Argument, Harding Advisory LLC and Wing F. Chau, Release No. 33-10097 (June 15, 2016), <https://www.sec.gov/litigation/admin/2016/33-10097.pdf> (last visited Nov. 16, 2016).

49. Nick T., *A Modern Smartphone or a Vintage Supercomputer: Which is More Powerful?*, PHONEARENA, (Jun. 14, 2014, 7:28 PM), [http://www.phonearena.com/news/A-modern-smartphone-or-a-vintage-supercomputer-which-is-more-powerful\\_id57149](http://www.phonearena.com/news/A-modern-smartphone-or-a-vintage-supercomputer-which-is-more-powerful_id57149).

50. See *id.*

51. *Email vs. Snail Mail (Infographic)*, PINGDOM ROYAL (Sept. 29, 2010), <http://royal.pingdom.com/2010/09/email-vs-snail-mail-infographic/>.

52. See, e.g., 17 C.F.R. §§ 240.17a-4(b), 270.31a-2(f) (2016).

53. See Guide to Broker-Dealer Compliance, *supra* note 24, at 3–5.

printed boxes in which examiners could enter information such as the name of the firm, date of the examination, and key findings.<sup>54</sup> Available space on the card was so limited that findings could be expressed only in summary entries such as citations to rules. Several examinations were recorded on the same card.<sup>55</sup> Today, electronic records have allowed large volumes of detailed information about a firm to be collected, stored, and searched by examiners.<sup>56</sup> As the cost of data collection and storage has come down, similar capabilities have spread to compliance professionals and, increasingly, to everyone.<sup>57</sup> Moreover, the electronics revolution is far from over. It remains an area of significant growth and development for regulation and compliance.<sup>58</sup> A quick review of some of its applications highlights the point.

At the most basic level, the ability to screen large data sets allows regulators and compliance professionals to search for misconduct that would otherwise be buried in the noise produced by a firm's day-to-day operations. In September 2014, for example, the SEC brought an enforcement action based on a single non-conforming trade, worth about \$27,000, net, against an adviser managing a portfolio worth more than one billion dollars.<sup>59</sup> The ability to ferret out such one-off instances of non-conformity radically transforms compliance and regulatory oversight. In the past, presumably, a pattern of misconduct or some degree of intentionality (the SEC noted in its order that intent was not a relevant consideration) would have been necessary before such a problem rose to a level triggering regulatory and compliance notice and correction.<sup>60</sup>

At a more sophisticated level, analysis of multiple data sets may allow regulators and compliance professionals to search for predictive signals that reveal misconduct as it takes shape. The SEC's Chair

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54. See John H. Walsh, *Big Data and Regulation, Part 2: Legal and Compliance*, CORP. COUNS. (June 20, 2014), <http://www.corpcounsel.com/id=1202660050197/big-data-and-regulation-part-2-legal-and-compliance/>.

55. *Id.*

56. See Walsh, *Part 1*, *supra* note 8.

57. See Quentin Hardy, *The Era of Cloud Computing*, N.Y. TIMES: BITS (June 11, 2014, 7:57 PM), <http://bits.blogs.nytimes.com/2014/06/11/the-era-of-cloud-computing/?r=0>.

58. See Walsh, *Part 1*, *supra* note 8.

59. Antipodean Advisors LLC, Exchange Act Release No. 34-73115 (Sept. 16, 2014), <https://www.sec.gov/litigation/admin/2014/34-73115.pdf>. This case was one of several announced on the same day alleging similar violations. See Press Release, Sec. & Exchange Comm'n, SEC Sanctions 19 Firms and Individual Trader for Short Selling Violations in Advance of Stock Offerings (Sept. 16, 2014), <https://www.sec.gov/news/press-release/2014-195>.

60. *Id.*

recently spoke to this issue.<sup>61</sup> She said the agency is using “powerful new data analytics and technology tools” to “aggregate and analyze a broad band of data to identify potentially problematic behavior.”<sup>62</sup> This includes, she added: “[E]xciting new technologies—text analytics, visualization, search, and predictive analytics—to cull additional red flags from internal and external data and information sources.”<sup>63</sup> The use of predictive analytics is incredibly exciting from a compliance perspective. Indeed, compliance will be fundamentally transformed when its resources can be directed at areas where problems are predicted to occur, instead of areas where red flags suggest problems have already occurred.<sup>64</sup> Certainly, the SEC seems to be making a big regulatory commitment to quantitative tools for its examination program,<sup>65</sup> enforcement program,<sup>66</sup> and in its risk assessment and oversight operations.<sup>67</sup>

Finally, the use of e-mails and other electronic communications has allowed regulatory and compliance investigators to enjoy new power. With e-mails, investigators have become accustomed to their ability to obtain in-depth forensic knowledge of the actual operations of various departments and executives.<sup>68</sup> Anyone who has conducted targeted forensic reviews both before and after the widespread use of electronic communications appreciates the new investigative power they allow.<sup>69</sup> Investigators no longer must rely on witnesses’ recollections of past events.<sup>70</sup> Raw contemporaneous communications are much more powerful evidence.<sup>71</sup>

In light of these developments, the electronics revolution has been a

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61. Mary Jo White, Chair, Sec. & Exchange Comm’n, Chairman’s Address at SEC Speaks 2014 (Feb. 21, 2014), <https://www.sec.gov/News/Speech/Detail/Speech/1370540822127>.

62. *Id.*

63. *Id.*

64. *See id.*

65. *See, e.g.*, Walsh, *Part 1*, *supra* note 8.

66. *See, e.g.*, Press Release, Sec. & Exchange Comm’n, SEC Announces Cherry-Picking Charges Against Investment Manager (June 29, 2015), <http://www.sec.gov/news/pressrelease/2015-132.html>.

67. *See, e.g.*, Press Release, Sec. & Exchange Comm’n, SEC Announces Creation of Office of Risk and Strategy for its National Exam Program (Mar. 8, 2016), <http://www.sec.gov/news/pressrelease/2016-38.html>.

68. Frederik Armknecht & Andreas Dewald, *Privacy-Preserving Email Forensics*, 14 DIGITAL INVESTIGATION, at S127, S127–28 (2015).

69. *See* Zachary G. Newman & Anthony Ellis, *Reliability, Admissibility, and Power of Electronic Evidence*, AM. BAR ASS’N (Jan. 25, 2011), <https://apps.americanbar.org/litigation/committees/trialevidence/articles/012511-electronic-evidence.html>.

70. *Id.*

71. *Id.*

major enhancement to compliance. One could easily look to the future and see a golden age of compliance emerging with the continued use of electronics. To place these developments in the context of the organizational culture of the River Rouge, electronics have replaced the shop floor, but the result remains the same.<sup>72</sup> Instead of ranks of supervisors, from the shop floor to the executive suite, looking over each other's shoulders, electronic monitoring tools scan data sets for non-conforming output, predict potential problem areas, or provide in-depth forensic evidence of operations.<sup>73</sup> The River Rouge has survived, although in a new form.<sup>74</sup> More recently, however, new developments suggest a new inflection point may be arriving, with new challenges. Perhaps this time the River Rouge model of organizational culture really is at risk.

#### IV. THE LOOMING CHALLENGE OF CONNECTIVITY

In recent years, the electronics revolution has entered new territory. Powerful handheld computers—remember those Smartphones with millions of times the computational power of NASA's Apollo program?<sup>75</sup>—have enabled new patterns of communication, known generically as social networks.<sup>76</sup> Individuals with similar interests self-select themselves into communication groups, to share news, pictures, personal or business information, and whatever else moves them.<sup>77</sup> Adopters cover a wide spectrum, from social “Friends” posting minute-by-minute accounts of their lives,<sup>78</sup> to like-minded ideologues posting commentary on the news of the day,<sup>79</sup> to activists (and even terrorists) posting minute-by-minute action-reports to guide compatriots away

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72. See Meyer, *supra* note 11; Sameh Shamroukh, *Extending JIT Value Beyond Enterprise Boundaries*, MANUFACTURING BUS. TECH. (Oct. 5, 2016, 10:56 AM), <http://www.mbtmag.com/article/2016/10/extending-jit-value-beyond-enterprise-boundaries>.

73. See Shamroukh, *supra* note 72.

74. *Id.*

75. See Tibi Puiu, *Your Smartphone is Millions of Times More Powerful Than All of NASA's Combined Computing in 1969*, ZMI SCIENCE (Oct. 13, 2015), <http://www.zmescience.com/research/technology/smartphone-power-compared-to-apollo-432/>.

76. See Michael Ray, *Social Network*, ENCYCLOPÆDIA BRITANNICA, <https://www.britannica.com/topic/social-network> (last visited Mar. 1, 2017).

77. See *id.*

78. See Sue Scheff, *Facebook is Not a Diary*, HUFFINGTON POST (July 3, 2013, 05:05 PM), [http://www.huffingtonpost.com/sue-scheff/facebook-is-not-a-diary\\_b\\_3537300.html](http://www.huffingtonpost.com/sue-scheff/facebook-is-not-a-diary_b_3537300.html).

79. See Caitlin Dewey, *The Most Compelling Reason to Never Talk Politics on Facebook*, WASH. POST (Aug. 4, 2016), <https://www.washingtonpost.com/news/the-intersect/wp/2016/08/04/the-most-compelling-reason-to-never-talk-politics-on-facebook>.

from riot police (or towards softer targets).<sup>80</sup> In every case the result is a dense personal network of electronic communications—often called “connectivity”—that provides each participant with extraordinary levels of detailed and real-time information.<sup>81</sup>

Clay Shirky, a commentator on the development of social media, has described its impact on organizational structure.<sup>82</sup> In his view, the major effect of connectivity has been to reduce the overhead or embedded cost of forming an organizational group.<sup>83</sup> As he describes it, in the past, formal management was required to integrate the multiple disparate actions required for complex activities.<sup>84</sup> As a result, “[f]or most of modern life, our strong talents and desires for group effort have been filtered through relatively rigid institutional structures because of the complexity of managing groups.”<sup>85</sup> This proposition is familiar to anyone who has studied the River Rouge organizational model.<sup>86</sup> Now, though, through connectivity, “most of the barriers to group action have collapsed, and without those barriers, we are free to explore new ways of gathering together and getting things done.”<sup>87</sup> The old limits on the “size, sophistication, and scope of unsupervised effort” have disappeared.<sup>88</sup> Shirky calls the resulting informational bonus “cognitive surplus.”<sup>89</sup> Individuals enjoying this level of connectivity, within their chosen networks, are able to tap into the observational and cognitive powers of the entire group, using time and resources previously expended on overhead managerial activities.<sup>90</sup> Instead of the twentieth-century model of communications, in which a small number of people created content and distributed it via one-way media, such as print or television, information exchanges have become multi-way, with each

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80. See, e.g., Tim Lister & Emily Smith, *Social Media @ the Front Line in Egypt*, CNN (Jan. 28, 2011, 11:51 AM), <http://www.cnn.com/2011/WORLD/africa/01/27/egypt.protests.social.media/>.

81. See José van Dijck, *Social Media and the Culture of Connectivity*, OUP: BLOG (Feb. 25, 2015), <http://blog.oup.com/2013/02/social-media-culture-connectivity>.

82. CLAY SHIRKY, *HERE COMES EVERYBODY: THE POWER OF ORGANIZING WITHOUT ORGANIZATIONS* 18–21 (2008).

83. *Id.* at 21.

84. *See id.*

85. *Id.*

86. *See Meyer, supra* note 11.

87. SHIRKY, *supra* note 82, at 82.

88. *Id.* at 21.

89. *See* CLAY SHIRKY, *COGNITIVE SURPLUS. HOW TECHNOLOGY MAKES CONSUMERS INTO COLLABORATORS* 9–12 (2010) [hereinafter SHIRKY, *COGNITIVE SURPLUS*]. Shirky also pointed to the role of leisure time in creating this surplus. *Id.*

90. *See* Greg Urban & Kyung-Nan Koh, *The Semiotic Corporation: An Introduction to the Supplement Issue*, 3 SIGNS & SOC’Y, at S1, S4–5 (2015).

participant in the network both producer and consumer.<sup>91</sup> Raw information in the form of text or image flows more rapidly and with more immediate consequences, with the benefit of more widespread commentary and other inputs and with greater ability to trigger real-time action.<sup>92</sup> Moreover, the world has only begun to explore the full potential of this new organizational form. As it takes shape, we will fully enter the Age of Connectivity.

One must always be careful about the hype that surrounds each new technological development, and connectivity has attracted its share.<sup>93</sup> Nonetheless, scholars have begun to consider the implications of connectivity in the workplace and have drawn positive conclusions.<sup>94</sup> For example, Paul Leonardi of the University of California, Santa Barbara, created an interesting experimental protocol in which he had the opportunity to study patterns of communication and productivity in a large financial services firm both before and after it rolled out a pilot enterprise social networking site.<sup>95</sup> The internal nature of the site allowed him to isolate relevant behaviors, and the fact that it was a pilot allowed him to use another similar department in the same firm as a control.<sup>96</sup> At the end of the study, he concluded that the networking allowed an “awareness of ambient communication,” (and “vicarious learning”) that increased “metaknowledge” about the organization, such as by informing co-workers of who knew what (thus reducing the need for duplicative work effort).<sup>97</sup> Beyond simple efficiency (although, one must note, in a large organization reducing duplication is a worthy goal), Leonardi found that employees who changed their behaviors to take advantage of the new platform (many did not) acquired a “vision advantage” over their colleagues.<sup>98</sup> In essence, adopters shifted their behavior from responding reactively to problems to “proactively aggregating knowledge by observing coworkers’ visible communications,” which helped them “bring new levels of innovation to

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91. See SHIRKY, *COGNITIVE SURPLUS* *supra* note 89, at 14–15.

92. See *id.* at 14–17.

93. Rhys Maliphant, *What 4 Recent Deals Tell Us About the Future of Connectivity*, PIVOTL (Sept. 8, 2015), <http://www.pivotl.com/2015/09/08/what-4-recent-deals-tell-us-about-the-future-of-connectivity/>.

94. See, e.g., Paul M. Leonardi, *Social Media, Knowledge Sharing, and Innovation: Toward a Theory of Communication Visibility*, 25 *INFO. SYS. RES.* 796, 796–97 (2014).

95. *Id.*

96. *Id.* at 799–803.

97. *Id.* at 812–13.

98. *Id.* at 809. Leonardi draws on the work of R.S. Burt in regards to the concept of a “vision advantage,” and notes that with enterprise social networking all employees could share in that advantage, regardless of network position. *Id.* at 812.

[the firm's] products and services.”<sup>99</sup> Leonardi concluded that the vicarious learning and proactive knowledge aggregation enabled by networking constituted “new ways of working” that were quite positive.<sup>100</sup>

This is neither the time nor the place to discuss the new ways of working that could arise in the Age of Connectivity. Its full power remains unknown but is certainly promising. The purpose of this essay is to consider not its promise but rather how it may challenge compliance. Given the origins of compliance, in what we have called the River Rouge approach to organizational culture, our starting point should be to ask: Will connectivity pose a significant challenge to the hierarchical form of organization?<sup>101</sup> The short answer is: Yes.

Connectivity has already challenged hierarchical organization, with deadly results. In this less-than-perfect world, the critical challenges posed by new social realities often first manifest themselves on the battlefield.<sup>102</sup> We are currently celebrating (if that is the right word) the centennial of the First World War, where the overwhelming power of manufacturing (like the assembly line inside the River Rouge) first unmistakably manifested itself.<sup>103</sup> Connectivity has had a similar introduction to the world. While fighting the War in Iraq, the U.S. military, and especially the Special Forces, found that Al Qaeda in Iraq could exploit real time networked information to strike autonomous blows against U.S. allies and then evade the U.S. military's slower moving hierarchical response.<sup>104</sup> The enemy used real-time connectivity to strike and disappear as information flowed more slowly up the U.S. military's command and control pyramid, and responsive orders flowed back down.<sup>105</sup> The operational advantages of the connected approach became so pronounced that U.S. field commanders began to realize that despite their advantages in training, efficiency, and material, they were unable to defeat an under-resourced insurgency.<sup>106</sup> In the words of General Stanley McChrystal, they started asking: “Why were we losing?”<sup>107</sup> The answer, General McChrystal and his team concluded,

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99. *Id.*

100. *Id.*

101. *See Ford Rogue Factory Tour: History & Timeline, supra* note 13.

102. *See, e.g.,* STANLEY MCCHRYSTAL ET AL., *TEAM OF TEAMS: NEW RULES OF ENGAGEMENT FOR A COMPLEX WORLD* 226, 251 (2015).

103. *See Meyer, supra* note 11.

104. MCCHRYSTAL, *supra* note 102, at 16–19.

105. *See id.* at 17–19.

106. *Id.* at 18–19.

107. *Id.* at 19.

was that networked solutions, such as the strategy Al Qaeda in Iraq was using against them, thrive in chaotic and fast-moving environments.<sup>108</sup> Connected solutions present themselves as a “chaotic mess.”<sup>109</sup> Nonetheless, General McChrystal suggests that networking permits solutions that are “capable of doing things that no single designer, however masterful, could envision—things far beyond an individual planner’s capacity to comprehend and control.”<sup>110</sup>

Luckily, in most cases, the failure to understand and respond to the new connected reality will not lead to combat deaths and civic destruction. Nonetheless, many people seem to misunderstand its transformative nature.<sup>111</sup> They believe connectivity is nothing more than a lot of information. To date, most legal commentators seem to be thinking along these lines, and are primarily concerned about protecting the personal information people share with their networks.<sup>112</sup> For example, commentators ask whether employees have a reasonable expectation of privacy in their social media records,<sup>113</sup> whether “cyber-vetting” is appropriate when assessing candidates for jobs,<sup>114</sup> and whether surveillance is an appropriate work-force management tool.<sup>115</sup>

Compliance, on the other hand, has different concerns. In some respects, compliance professionals approach connectivity from much of the same perspective as the military.<sup>116</sup> How, they ask, will they devise control systems for the chaotic mess in a networked environment? Again, much like the military, compliance professionals ask: how can they identify and control rogue actors who will have all of the advantages of operating autonomously within dense networks of real-time information? Fraud, like warfare, is a fact of human life. Moreover, as General McChrystal observed, when a rogue network is freed from the obligation to achieve something constructive, it can dispense with

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108. *Id.* at 248–49.

109. *See, e.g., id.* at 248.

110. *Id.*

111. *See, e.g., id.* at 19.

112. *See* Saby Ghoshray, *The Emerging Reality of Social Media: Erosion of Individual Privacy Through Cyber-Vetting and the Law’s Inability to Catch Up*, 12 J. MARSHALL REV. INTELL. PROP. L., 551, 552–53 (2013); Patricia Sánchez Abril et al., *Blurred Boundaries: Social Media Privacy and the Twenty-First-Century Employee*, 40 AM. BUS. L.J. 63, 64–65 (2012).

113. Sánchez Abril, *supra* note 112, at 64–65.

114. Ghoshray, *supra* note 112, at 573–77.

115. Saby Ghoshray, *Employer Surveillance Versus Employee Privacy: The New Reality of Social Media and Workplace Privacy*, 40 N. KY. L. REV. 593, 594 (2013).

116. Miriam Hechler Baer, *Governing Corporate Compliance*, 50 B.C. L. REV. 949, 979–80 (2009).

precision and coordination and become even more dangerous.<sup>117</sup> These are not theoretical questions. An example of connectivity, already common in many firms, highlights the looming challenge.

Many firms have established Bring Your Own Device or “BYOD” Policies.<sup>118</sup> When a firm permits BYOD, employees carry a personal Smartphone with the firm’s controlled communications system as well as their own uncontrolled personal systems.<sup>119</sup> BYOD enhances employee satisfaction, by allowing them ready access to their personal communications and networks, and efficiency, as they can use their favorite tools and search engines throughout the day.<sup>120</sup> On the other hand, BYOD policies have generated numerous difficult legal and administrative issues encompassing e-discovery,<sup>121</sup> cyber-security, privacy, employment issues arising from an “always reachable”<sup>122</sup> workplace dynamic, books and records retention,<sup>123</sup> litigation over remote wipes of the BYOD device (a security measure required by many firms that allow BYOD),<sup>124</sup> and even international complications, as BYOD users carry their devices across international borders and through differing foreign privacy regimes.<sup>125</sup> Indeed, the issues are so difficult that some commentators have suggested “BYOD” could stand for “Bring Your Own Disaster” to work.<sup>126</sup> Without detracting from these issues, compliance professionals have yet another concern with BYOD. At any given moment in the workplace, deep inside the alleged control perimeter around the firm, even in the presence of supervisors exercising their alleged power of observation, a BYOD employee has private access to the connected world, for good or ill.

Ongoing developments threaten more of the same. New communication and networking applications are constantly emerging, some of them expressly designed to be transitory, elusive, and difficult

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117. MCCRYSTAL, *supra* note 102, at 244–45 (comparing a rogue network like Al Qaeda in Iraq to a network with constructive goals, like supply chain management, aid distribution, marketing, and national governance).

118. See Melinda McLellan et al., *Wherever You Go, There You Are (With Your Mobile Device): Privacy Risks and Legal Complexities Associated with International “Bring Your Own Device” Programs*, 21 RICH. J.L. & TECH. 11, 1–3 (2014).

119. See *id.* at 1–2.

120. See *id.* at 2–3.

121. *Id.*

122. *Id.* at 3.

123. *Id.* at 17.

124. *Id.* at 28.

125. See *id.* at 6–7 (surveying the field).

126. Hope A. Comisky & Tracey E. Diamond, *The Risks and Rewards of a BYOD Program: Ensuring Corporate Compliance Without Causing “Bring Your Own Disaster” at Work*, 8 CHARLESTON L. REV. 385, 410 (2014).

to control.<sup>127</sup> Parents of minor children worry about these applications and compliance professionals should too.<sup>128</sup> Moreover, one hears a great deal of discussion in the news about the deployment of unbreakable encryption on smartphones and its impact on law enforcement.<sup>129</sup> Compliance professionals, when they hear this, must wonder what the impact of encryption will be when employees know their private communications, even those sent on a BYOD from deep within the firm, during the workday, are unbreakably protected.<sup>130</sup> Moreover, legal trends seem to be moving in the direction of giving employees even greater privacy.<sup>131</sup> Several states have moved to restrict employers' ability to monitor employees' social media accounts by restricting their ability to demand the employees' usernames or passwords.<sup>132</sup> Some states allow employer investigations to ensure compliance with applicable laws and regulations,<sup>133</sup> but others, such as New Jersey, the domicile of this Symposium, do not.<sup>134</sup> How then will compliance ensure that employees are not using personal networks for business-related communications or even exploiting the apparent authority of the firm for the employee's own purposes? Indeed, some regulators, such as the National Labor Relations Board (NLRB) are not just creating no-compliance zones; they are affirmatively protecting employees' ability to discuss the employer, in negative detail, on social media, as a form of

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127. See Brett Nuckles, *5 Best Secure Messaging Apps*, BUS. NEWS DAILY (Oct. 24, 2016, 09:35 AM), <http://www.businessnewsdaily.com/6981-secure-messaging-apps-business.html>.

128. See *New Snapchat App Worrying Parents*, NBC-2 (Dec. 4, 2012, 4:24 PM), <http://www.nbc-2.com/story/20259970/new-snapchat-app-worrying-parents>. The tension between rogue actors and privacy on social media can be seen in an easy experiment. Google "Snapchat," a social application designed to be transitory, and responsive hits will cover the gamut from FBI warnings that criminals are exploiting the application to take advantage of children, to other warnings (presumably intended for a different audience) that police may be able to retrieve the transitory messages after all.

129. See, e.g., Carrie Cordero & Marc Zwilling, *Should Law Enforcement Have the Ability to Access Encrypted Communications?*, WALL ST. J. (Apr. 19, 2015, 11:11 PM), <http://www.wsj.com/articles/should-law-enforcement-have-the-ability-to-access-encrypted-communications-1429499474>.

130. See Michael Cobb, *How Will Android Encryption by Default Affect Enterprise BYOD?*, SEARCHSECURITY, <http://searchsecurity.techtarget.com/answer/How-will-Android-encryption-by-default-affect-enterprise-BYOD> (last visited Mar. 1, 2017).

131. See *State Social Media Privacy Laws*, NAT'L CONF. OF STATE LEGISLATURES (Jan. 11, 2017), <http://www.ncsl.org/research/telecommunications-and-information-technology/state-laws-prohibiting-access-to-social-media-usernames-and-passwords.aspx#stat> (surveying relevant state statutes).

132. *Id.*

133. See, e.g., MD. CODE ANN., LAB. & EMPL. § 3-712(e) (LexisNexis 2016).

134. N.J. STAT. ANN. § 34:6B-6 (West 2016).

protected speech.<sup>135</sup> As these developments begin to add up, the BYOD in an employee's hand will become an increasingly powerful symbol of the growing ascendance of connectivity over compliance.

Are employees using BYODs to send secret messages—in real time—about the non-public information they have just learned? Are they leveraging their latest work assignment to enhance their negotiations for a new job? Are they posting social commentary about the supervisor sitting across the conference room table? Or are they—as one would hope—using the power of connectivity to enhance their own productivity and value to the firm? Who knows? Compliance professionals accustomed to the hierarchical model shudder at their loss of control. They should. Connectivity is challenging many of the operational assumptions upon which compliance professionals have based their work. They are losing their bounded space; connected cyberspace stretches out around the world. They are losing their power of observation; with unbreakable encryption they will lose it completely. They are losing their ability to capture and assess work-related activities; how does one capture and control a widely shared “cognitive surplus”? They are losing their ability to sanction non-conforming conduct; how will they even know?<sup>136</sup> Finally, they are losing their vision of their workplace as a River Rouge style assembly line;<sup>137</sup> dense multi-point webs will fill the future just as linear critical paths filled the past.<sup>138</sup>

BYOD policies are only one example, and are only illustrative. The critical issue is *not* whether employers should allow BYODs inside the firm. Trying to prohibit them outside of highly defined and secure areas, such as a trading desk, is probably futile and even counter-productive: the promise of vicarious learning and cognitive surplus is just as alluring to employers as it is to workers.<sup>139</sup> No business wants its workforce locked into the technology and mind frame of the last

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135. See, e.g., Office Pub. Affairs, *Acting General Counsel Releases Report on Employer Social Media Policies*, NLRB (May 30, 2012), <https://www.nlr.gov/news-outreach/news-story/acting-general-counsel-releases-report-employer-social-media-policies>. The NLRB's General Counsel has issued a series of reports describing cases brought against employers for social media policies that are deemed overbroad and chilling to employees' organizational rights. *Id.*

136. See McLellan et al., *supra* note 118, at 2.

137. See *Ford Rogue Factory Tour: History & Timeline*, *supra* note 13.

138. See Meyer, *supra* note 11.

139. *Cognitive Surplus-Heard of It? Every Finance Department Should Tap into It!*, ADRA: BLOG (Nov. 14, 2012), <http://www.adra.com/blog/2012/11/14/cognitive-surplus-heard-of-it-every-finance-department-should-tap-into-it/>.

century.<sup>140</sup> Rather, the critical issue is how to respond to connectivity, not how to prevent it.

Moreover, another development, not directly relevant to the rise of connectivity, should also be mentioned. This is the ongoing atomization of the hierarchical firm separate and apart from the impact of technology.<sup>141</sup> One economist has estimated that approximately one out of ten U.S. workers is already engaged in an “alternative employment arrangement”, and most of them are independent contractors.<sup>142</sup> Compliance professionals today must deal with large numbers of independent contractors, temporary employees, outsourced activities, interns, externs, and other human resource practices that have the effect of decomposing the firm into semi-autonomous actors with low levels of connection with the institution.<sup>143</sup> Why, these workers already ask, must they be subjected to the training, monitoring, and culture experienced by full-time employees? Building a culture of compliance in such an environment already poses significant challenges. At the same time, as connectivity grows, these autonomous workers will bring their own networks with them into the workplace.<sup>144</sup> Compliance professionals who consider the future must look forward to a world in which many workers view their relationship with the firm as purely contractual and at arms-length, while their relationships with their personal networks are dense, in real time, and completely private.<sup>145</sup> At some point these workers will escape from the culture of the firm and even from its command-and-control hierarchy. Indeed, many of them probably already have.

Let us return for a moment to Alec Ross’s meetings with heads-of-state. How, he asked, would they deal with the systemic loss of control and diffusion of power resulting from the open access, globalization, and constant innovation of the new century?<sup>146</sup> These are challenges for

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140. *See id.*

141. *See generally* JEFFREY A. EISENACH, NAVIGANT ECON. L.L.C., THE ROLE OF INDEPENDENT CONTRACTORS IN THE U.S. ECONOMY (2010), [https://www.aei.org/wp-content/uploads/2012/08/the-role-of-independent-contractors-in-the-us-economy\\_123302207143.pdf](https://www.aei.org/wp-content/uploads/2012/08/the-role-of-independent-contractors-in-the-us-economy_123302207143.pdf) (last visited Nov. 16, 2016).

142. *Id.*

143. *See id.* at 16–17.

144. EISENACH, *supra* note 141, at 21–28 (noting several areas where employers hire independent contractors to utilize their networks and resources for the employer’s benefit).

145. Brendon Schrader, *Here’s Why the Freelancer Economy is on the Rise*, FASTCOMPANY (Aug. 10, 2015, 5:00 AM), <https://www.fastcompany.com/3049532/the-future-of-work/hereswhy-the-freelancer-economy-is-on-the-rise>.

146. *See* ROSS, *supra* note 3, at 215.

more than heads-of-state. They are also challenges for corporate compliance. How we address them will play an important role in the future of compliance. Moreover, we do not live in a binary world where the hierarchy is intact and all-powerful, or connectivity has completely broken it down. More likely, compliance professionals will struggle with situations in which enhanced connectivity challenges their controls, but the regulatory requirements and legal concepts developed for the hierarchical world remain in place. As connectivity grows, so will the challenge to compliance.

#### V. INHERENT COMPLIANCE

As we shift from the society and economy of the twentieth century, in which information and productive relationships were controlled by hierarchical organizations, into the twenty-first century, in which networks will increasingly challenge hierarchies, perspectives on cultures of compliance must change as well. River Rouge-style external controls will become increasingly difficult to impose. Instead of information flowing up a pyramid and commands and controls flowing back down, the connected social dynamic will become increasingly networked and autonomous. How should compliance respond?

Compliance professionals need to focus more attention on what—for want of a better term—could be called “inherent compliance.” Compliance is inherent when compliance-fostering structures or practices are inherent in the organization of a firm or function.<sup>147</sup> In other words, inherent compliance is not imposed from the outside. It is not based on external commands and controls.<sup>148</sup> To return again, for a moment, to the River Rouge, inherent compliance is not based on a supervisor standing behind the assembly line, watching every move in a defined and structured sequence.<sup>149</sup> Rather, inherent compliance is embedded in the organizational culture of the firm and its operations and will operate even when external controls are unavailable among the multi-point webs and nodes of a network.<sup>150</sup>

Stating what is needed—inherent compliance—is a lot easier than describing what it is or how to deliver it. That is why I am pleased to be on this panel today with Don Langevoort and Greg Urban. Don and

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147. CHARLES H. LE GRAND, IBS AM., INC., BUILDING A CULTURE OF COMPLIANCE 3 (2005), [http://www.qualitymag.com/ext/resources/files/white\\_papers/BuildingaCultureofCompliance-IBS.pdf](http://www.qualitymag.com/ext/resources/files/white_papers/BuildingaCultureofCompliance-IBS.pdf).

148. *See id.*

149. *See id.*; Meyer, *supra* note 11.

150. LE GRAND, *supra* note 147, at 3–4.

Professor Urban's scholarship is more than simply interesting and thought provoking, although it is that as well. Rather, their work helps illustrate how we can begin to respond to the looming challenge of connectivity. Don's work with behavioral ethics shows us the many ways in which a human actor can become more or less ethical.<sup>151</sup> Professor Urban's work with anthropology shows us how human groups use symbols to replicate cultural norms.<sup>152</sup> Their scholarship should play an important role in helping us think about the future of compliance policy.

It may seem presumptuous of me to comment on Professor Langevoort and Professor Urban's work, with the two of them sitting next to me, but I would like to highlight certain ideas from their remarks that I believe should play significant roles in the future of compliance policy. In essence, their work is beginning to show us a possible path to inherent compliance. I will then add a few thoughts of my own.

**Behavioral Ethics.** First, from Don, is the study of behavioral ethics, including the many ways in which human actors fool themselves into believing they are more ethical than they really are.<sup>153</sup> Don made reference during his remarks to the fact that people generally cheat more than they should, but less than they could.<sup>154</sup> He also discussed the compliance implications of this insight, both at this Symposium and in more detail in a 2015 article.<sup>155</sup> It appears, he said, that people have cognitive buffers that enable them to delay awareness of the ethical nature of an act until they are committed to it and its rationalization.<sup>156</sup> This allows everyone to cheat a little, and when his or her ethical

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151. See DONALD C. LANGEVOORT, *SELLING HOPE, SELLING RISK: CORPORATIONS, WALL STREET, AND THE DILEMMAS OF INVESTOR PROTECTION* (2016); Donald C. Langevoort, *Behavioral Ethics, Behavioral Compliance*, in RESEARCH HANDBOOK ON CORPORATE CRIME AND FINANCIAL MISLEADING (Jennifer Arlen ed., forthcoming), <http://scholarship.law.georgetown.edu/cgi/viewcontent.cgi?article=2519&context=facpub>; Donald C. Langevoort, *Cultures of Compliance*, AM. CRIM. L. REV. (forthcoming); Donald C. Langevoort & Hillary A. Sale, "We Believe": *Omnicare, Legal Risk Disclosure and Corporate Governance*, DUKE L.J. (forthcoming).

152. See Greg Urban, *Corporations in the Flow of Culture*, 39 SEATTLE U. L. REV. 321, 349–51 (2016); Greg Urban, *Symbolic Force: A Corporate Revitalization Video and Its Effects*, 3 SIGNS & SOC'Y, S95, S95–S96 (2015); Urban & Koh, *supra* note 90, at S4–S5.

153. Langevoort, *Behavioral Ethics, Behavioral Compliance*, *supra* note 151.

154. Donald Langevoort, Professor of Law, Address at Rutgers Law School Center for Corporate Law and Governance Symposium: New Directions in Corporate Compliance (May 20, 2016).

155. *Id.*; see also Langevoort, *Behavioral Ethics, Behavioral Compliance*, *supra* note 151.

156. Langevoort, *Behavioral Ethics, Behavioral Compliance*, *supra* note 151.

consciousness catches up, to engage in after-the-fact rationalization.<sup>157</sup> In short, cheating (at least to some degree) is a universal practice, and it is fed by a temporal mismatch between act and ethical awareness.<sup>158</sup>

Don's scholarship is very interesting when considering the challenges to compliance in the looming Age of Connectivity. If human cognition interferes with ethical behavior, such as by buffering and delaying ethical awareness, what will happen when employees have free reign, during the workday, on their own fully encrypted personal networks? With no external controls to restrain them, will workers slowly slide down the slippery slope into ever more pernicious cheating and ever more self-serving rationalization? New and responsive forms of compliance must be developed.

Don makes an observation that may be helpful in this regard: in many organizations, he says, "ethics is a potentially uncomfortable subject."<sup>159</sup> Given our traditional organizational culture, this makes sense. Ethics can seem like a personal matter and, in any event, why worry about it when the externally imposed command-and-control structure will catch non-conforming output? Now though, as individuals shake free of the hierarchy, the ethics with which they represent the firm takes on new meaning. Perhaps the time has come to challenge our reluctance to discuss ethics in the workplace.

How can compliance professionals translate Don's insights into a culture of compliance? Making ethics an affirmative element in the workplace may focus attention upon it in ways that will help overcome our inherent cognitive buffering and delay.<sup>160</sup> Indeed, when people in a workplace push ethics and compliance into the foreground of decision-making, freely discuss the ethical considerations in business questions, and are free to remark on the business ethics of competitors and others, it will (hopefully) become increasingly difficult for ethical realization to be left lurking in the unaware shadows of cognition.<sup>161</sup> During his remarks, Don mentioned that this is called "framing."<sup>162</sup> When you frame an issue as ethical, people tend to produce more ethical choices.<sup>163</sup> By making ethics and compliance explicit and affirmative (rather than

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157. *Id.*

158. *See id.*

159. *Id.*

160. Dori Meinert, *Creating an Ethical Workplace*, SOC'Y FOR HUM. RESOURCE MGMT. (Apr. 1, 2014), <https://www.shrm.org/hr-today/news-hr-magazine/pages/0414-ethical-workplace-culture.aspx>.

161. *See id.*

162. Address by Langevoort, *supra* note 154.

163. *Id.*

negative and reactive), one can hope people will better frame their work—both in the office and on their networks.

An example of this approach as a regulatory or compliance strategy can be found in the SEC's rulemaking for the code of ethics rule for investment advisers.<sup>164</sup> A code should be more than a compliance manual, the Commission said:

Rather, a code of ethics should set out ideals for ethical conduct premised on fundamental principals [sic] of openness, integrity, honesty and trust. A good code of ethics should effectively convey to employees the value the advisory firm places on ethical conduct, and should challenge employees to live up not only to the letter of the law, but also to the ideals of the organization.<sup>165</sup>

In any event, most codes of ethics ended up looking like codes of law by listing prohibited conduct of greater or lesser length and detail.<sup>166</sup> Nonetheless, as an aspirational statement, the Commission's vision for advisory codes of ethics is very suggestive of how framing can support inherent compliance.

**Anthropology.** Second, from Professor Urban, is the study of anthropological culture, including the use of symbols and rituals to define and replicate cultural norms within an organization.<sup>167</sup> As an example, Professor Urban made reference during his remarks to a corporate video made by Harley-Davidson, Inc., and he explores the effects of the video more thoroughly in an article published in 2015.<sup>168</sup> The video had a high level of aesthetic quality, showed a positive image of the company and the people who worked there, and played on themes such as certain social settings (small towns and rural America), deeper national images (flags) and motivational goals (underdogs winning in the end).<sup>169</sup> In interviews, Professor Urban determined that some

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164. 17 C.F.R. § 275.204A-1 (2016).

165. Investment Adviser Codes of Ethics, 69 Fed. Reg. 41696, 41697 (July 9, 2004).

166. See, e.g., *Investment Advisor Code of Ethics*, CHARLES SCHWAB, [http://www.schwab.com/public/schwab/nn/legal\\_compliance/important\\_notices/iacoe.html](http://www.schwab.com/public/schwab/nn/legal_compliance/important_notices/iacoe.html) (last visited Mar. 1, 2017).

167. See, e.g., Urban, *Corporations in the Flow of Culture*, *supra* note 152, at 321–22.

168. Urban, *Symbolic Force*, *supra* note 152, at S95; Greg Urban, Professor of Anthropology, University of Pennsylvania, Address at Rutgers Law School Center for Corporate Law and Governance Symposium: New Directions in Corporate Compliance (May 20, 2016).

169. Urban, *Symbolic Force*, *supra* note 152, at S105–S107.

viewers were attracted by the video, others repulsed.<sup>170</sup> The effect, he concluded, was to make the symbolism contained in the video a gatekeeper in which the video caused a “transference of affectual quality” that oriented individuals’ attitudes to the collective; in this case, the Harley-Davidson company.<sup>171</sup> In short, as Professor Urban explains in an introduction to his article, the video represents the corporation to itself, thus “helping to create and maintain group boundaries.”<sup>172</sup>

This type of self-symbolism is very interesting when considering the challenge to compliance in the looming Age of Connectivity. In essence, it suggests a new source of workplace boundaries, defined not by a shop floor and a supervisor’s physical power of observation but by the affectual qualities that inspire and motivate employees. Indeed, in other recent work Professor Urban distinguishes between the “anthropological corporation,” which is a productive group characterized by an “at least somewhat distinctive culture,” and the “legal corporation,” which is a creature of state recognition.<sup>173</sup> One can imagine applying the same terms to the networks that spring up so easily in a connected environment. The legal corporation may inhabit the controlled side of a BYOD Smartphone, but a successful anthropological corporation will have an impact on the BYOD’s personal side as well.

How can compliance professionals translate Professor Urban’s insights into a culture of compliance? Making ethics an affirmative element in the firm’s symbolism of itself, to itself, may help invigorate the compliance of the anthropological corporation. This type of people-centered symbolism may, at first glance, appear to belong in the Human Resources Department. Nonetheless, from a compliance perspective, one could ask, what core compliance attributes belong in the images within which the company represents itself, to itself? One that springs readily to mind is honesty. A symbolic focus on honesty serves several goals: it provides an affectual sense of identity for the group (“we are honest people”); it provides core compliance priorities that can guide decision-making (ask: was this a dishonest act or an honest person making an honest mistake?); it helps provide legitimacy to the compliance program (both for those who make a decision and those in the anthropological group who assess a decision’s cultural legitimacy);

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170. *Id.* at S97.

171. *Id.* at S100.

172. Urban & Koh, *supra* note 90, at S5 (internal quotations omitted).

173. Urban, *Corporations in the Flow of Culture*, *supra* note 152, at 350.

and it provides opportunities for ritualized maintenance of the relationship between the anthropological and the legal corporation (dishonest people will be shown the door).

An example of how this approach might work in a regulatory or compliance context can be seen in the facts of a fairly notorious enforcement case. The SEC brought an action against Theodore Urban, General Counsel and head of compliance of a broker-dealer, alleging that he had failed to supervise a particular salesman.<sup>174</sup> The salesman had engaged in various forms of misconduct, eventually pleaded guilty to securities fraud and making a false and fictitious statement and was sentenced to time in prison.<sup>175</sup> The case against Mr. Urban for failure to supervise the salesman had a long history, with a decision by an Administrative Law Judge that was eventually overturned in 2012 by an evenly divided Commission.<sup>176</sup> The interest in the case today, for this Symposium, is not with the broker's misconduct, nor with the history of the case, nor even, for that matter, with the allegations against Mr. Urban. Rather, it is with an apparently small anecdote buried within the Administrative Law Judge's lengthy initial decision. Apparently, in January 2003, as soon as the problematic salesman arrived at the firm, he lied to compliance.<sup>177</sup> He signed his wife's name to an option agreement for a joint account, claiming he had a power of attorney for her.<sup>178</sup> In fact, none was on file with the firm.<sup>179</sup> Moreover, that same day, the firm received a temporary restraining order that the salesman's wife had obtained against him.<sup>180</sup> A compliance professional said the salesman had lied, and was "going to be trouble."<sup>181</sup> Indeed, he was. By the time he was finished, the SEC had sanctioned the firm<sup>182</sup> and most of his supervisors.<sup>183</sup>

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174. Urban, Exchange Act Release No. 402, 99 SEC Docket 994, 2010 WL 3500928, at \*1 (Sept. 8, 2010), *dismissed by an evenly divided Commission*, Exchange Act Release No. 3366, 102 SEC Docket 3284, 2012 WL 1024025 (Jan. 26, 2012). Greg informs me that while they share the same last name, he and Theodore Urban are not relatives, at least insofar as Greg knows.

175. *Id.* at \*31.

176. *See id.* at \*49; Urban, Exchange Act Release No. 3366, 102 SEC Docket 3284, 2012 WL 1024025, at \*1 (Jan. 26, 2012).

177. Urban, Exchange Act Release No. 402, *supra* note 174, at \*8.

178. *Id.*

179. *Id.*

180. *Id.*

181. *Id.*

182. Ferris Baker Watts, Inc., Exchange Act Release No. 34-59372, 95 SEC. Docket 498, 2009 WL 321327, at \*1 (Feb. 10, 2009).

183. *See, e.g.*, Akers, Exchange Act Release No. 34-60628, 96 SEC Docket 2246, 2009 WL 2857622, at \*1 (Sept. 4, 2009).

Why is this story important? At the beginning of a very long and unfortunate series of events, a compliance professional had already decided that the salesman was a liar and would be trouble. In the traditional view of compliance, based on the command-and-control search for non-conforming outputs, the salesman had not yet produced any defective goods. Indeed, he had barely arrived at the firm. Yet, from a people-centered perspective, the salesman had already demonstrated the key necessary information: he was a liar. The salesman had already demonstrated that he did not belong at a firm that defined itself, to itself, in its own self-symbolism, as inherently honest. Such a firm would have had an opportunity to act out a ritual of self-definition, as in the example, by asking the liar to leave as soon as he had arrived and before any damage was done.

**Resiliency.** Third, and finally, is the study of networks and their resilience. A recurring theme, among those who study our increasingly networked world, is that the Age of Connectivity will be chaotic and messy.<sup>184</sup> In the past, our organizations were modeled on the physical sciences with reductionist behaviors and explicit causation.<sup>185</sup> Frederick Winslow Taylor made this approach famous, and the Taylor System, as his ideas became known, led to the emergence of independent inspection departments<sup>186</sup> that can be viewed as the intellectual, if not organizational progenitors of the independent Compliance Department. The precisely controlled environment of the River Rouge owed much to his insights.<sup>187</sup> Increasingly, however, the life sciences are becoming the model for organizations, and much else in our society, through the intellectual organizing principle known as a network.<sup>188</sup> The concept of a network provides an analytical framework for understanding complex systems, many of which are biological, and has been applied to multiple manifestations in a wide range of fields.<sup>189</sup> For example, viewed as

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184. See e.g., ANDREW ZOLLI & ANNE MARIE HEALY, RESILIENCE: WHY THINGS BOUNCE BACK 17–20 (2012). General McChrystal was previously cited for the same proposition. See MCCHRISTAL *supra* note 102, at 248–249.

185. J.M. JURAN, *A History of Managing for Quality in the United States of America*, in A HISTORY OF MANAGING FOR QUALITY 554–57 (1995); *Frederick Taylor Winslow*, PBS: WHO MADE AMERICA, [https://www.pbs.org/wgbh/theymadeamerica/whomade/taylor\\_hi.html](https://www.pbs.org/wgbh/theymadeamerica/whomade/taylor_hi.html) (last visited Mar. 1, 2017).

186. See JURAN, *supra* note 185.

187. See *id.* at 556–57 (commenting on relationship between Taylor and American productivity gains).

188. See, e.g., ZOLLI & HEALY, *supra* note 184, at 19.

189. See *id.* (describing the term as “a universal, abstract reference system for describing how information, resources, and behaviors flow through many complex systems”).

networks, similarities can be seen in the behaviors of tuberculosis infections and terrorist organizations or, somewhat differently, in the sustainability of coral reefs and financial institutions.<sup>190</sup> Moreover, beyond an analytical framework, networked operations provide tactical advantages, as General McChrystal discovered.<sup>191</sup> Based on his combat experiences with Al Qaeda in Iraq, he concluded that it takes a network to fight a network.<sup>192</sup> As adversaries (military and business) network themselves to remain competitive in the Age of Connectivity, how will compliance function in that environment? Luckily, the health of networks has received much recent attention, and there are lessons for compliance in this work.

In his 2012 book, *Resilience: Why Things Bounce Back*, Andrew Zolli (with Anne Marie Healy) considers why some networks can respond to threats and overcome crises, while others, faced with apparently smaller problems, collapse into newer and less optimal states.<sup>193</sup> Many networks, he suggests, are robust yet fragile.<sup>194</sup> However effective they may have been at addressing historic problems, they are vulnerable to the unexpected, mostly because they have somehow lost the diversity and flexibility necessary to respond to new and different challenges.<sup>195</sup> From monocultures to group think, when networks lose diversity and flexibility they acquire fragility. The response, Zolli suggests, is something called “strategic looseness.”<sup>196</sup> This approach has two parts: “fixedness” of values and purpose, including, in an organizational context, significant levels of trust; and “fluidity” of strategies, structures and actions, including creative responses to unexpected events.<sup>197</sup> Remarkably enough, this is very similar to the two-step prescription offered by General McChrystal: “shared consciousness” and “empowered execution.”<sup>198</sup> In General McChrystal’s terms: “Shared consciousness is a carefully maintained set of centralized forums for bringing people together. Empowered execution is a radically decentralized system for

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190. See *id.*

191. See MCCRISTAL *supra* note 102, at 248–49.

192. *Id.* at 251.

193. ZOLLI & HEALY, *supra* note 184, at 19.

194. *Id.* at 16–17.

195. *Id.* at 19.

196. *Id.* at 259.

197. *Id.* at 259–60. For a discussion of the role of trust, see ZOLLI & HEALY, *supra* note 184, at 144–90, which describes how “resilience is predicated on trust in a system, allowing potential adversaries to move seamlessly into cooperative mode” and giving examples.

198. MCCRISTAL, *supra* note 102, at 244.

pushing authority out to the edges of the organization.”<sup>199</sup>

Whichever terms we use—fixedness of values or shared consciousness—the result is much the same. Organizational resilience is primarily subjective and based upon the values and knowledge shared by networked individuals. General McChrystal calls creating this subjective state the “heavy lifting” that must precede decentralized decision-making.<sup>200</sup>

How can compliance professionals translate Zolli and McChrystal’s insights into a culture of compliance? Making ethics explicit and establishing a shared expectation of honesty as a basis for mutual trust would—hopefully—prime an organization for resilient responses to ethical or compliance challenges. The next step would be to develop shared consciousness by providing transparent information to everyone on the network. Once compliance transparency can be achieved, vicarious ethics learning and recombinant compliance innovation will be possible. The electronics revolution makes this kind of transparency possible in large groups, really, for the first time in history.<sup>201</sup> The final step would be to push authority out to the edges of the organization. Zolli calls this “adhocracy.”<sup>202</sup> Instead of seeking precise and pre-determined actions, as in hierarchical organizations, adhocracies respond to new challenges with creative trial and error.<sup>203</sup> Importantly, creative responses may not always be the best, and feedback loops play an important role in deciding what does and does not work.<sup>204</sup> Again, the availability of massive data flows will allow a level of feedback not even imagined in the past. Through on-going trial and error, and active feedback, it will be possible to identify both emerging systemic weaknesses and the efficacy of different responses. This is the essence of a self-healing network. As General McChrystal put it, somewhat differently, in a connected environment, leadership becomes a form of gardening in which the goal is no longer to control individual outputs, but to shape the ecosystem.<sup>205</sup>

An example of how this approach might work in a regulatory or compliance context can be seen in its application to enforcement or

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199. *Id.* at 245.

200. *Id.* at 244.

201. Identifying compliance transparency as a goal also shows some of the challenges facing compliance in the Age of Connectivity. Current human resources and privacy law can be expected to make achieving such transparency very difficult.

202. ZOLLI & HEALY, *supra* note 184, at 264–70.

203. *Id.* at 264–66.

204. *Id.* at 260–64.

205. MCCHRISTAL, *supra* note 102, at 226.

disciplinary policy. What should be done when a worker who is deeply engaged in a firm's shared values, who has been provided up-to-the-minute relevant information, somehow generates non-conforming output? In the command-and-control world of the River Rouge the answer is simple: the failure should be sanctioned.<sup>206</sup> Today, regulators' enforcement dockets are full of cases sanctioning people and firms for good-faith non-conforming output, even when the problem arose in highly complex environments and no one was hurt.<sup>207</sup> Resilience theory, on the other hand, suggests that greater emphasis should be placed on the self-healing characteristics of the network.<sup>208</sup> Has an honest person made a good faith mistake, chosen a less than optimal response, or overlooked some latent potential failure in a complex system? In a self-healing network, the questions become: what is the scope of the situation, what can be done to rectify it, and what can be learned about the nature of the challenge going forward? Adhocracies must expect some level of breakage, and compliance professionals must insist that the network focus on healing itself, including healing any harm to customers impacted by a failure. On the other hand, external controls, such as those imposed by regulators, would be most effective when targeting situations that fundamentally threaten the network as a whole, such as instances of intentional dishonesty. The more a network can respond on its own and heal its own ethical and compliance challenges, through its own inherent processes, the more resilient it will become.

## VI. CONCLUSION

These are the earliest days of the Age of Connectivity, and only the passage of time will reveal its full impact on compliance. As a famous philosopher of our times is alleged to have said—that would be Yogi Berra—"It's hard to make predictions, especially about the future."<sup>209</sup> This essay is not offered as a road map but only to provide a few suggestions about what connectivity may mean to compliance and how compliance professionals might respond. Much like the heads-of-state interviewed by Alec Ross, and cited at the beginning of this essay, compliance professionals must get ready for a loss of control and

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206. See *supra* Part II.

207. See, e.g., Urska Velikonja, *Reporting Agency Performance: Behind the SEC's Enforcement Statistics*, 101 CORNELL L. REV. 901, 929–30 (2016).

208. See ZOLLI & HEALY, *supra* note 184, at 80–81.

209. Beatrice Santorini, *Yogi Berra: Sayings and Ripostes*, LINGUISTIC HUMOR, <http://www.ling.upenn.edu/~beatrice/humor/yogi-berra.html> (last visited Mar. 1, 2017).

diffusion of power.<sup>210</sup> Moreover, as General McChrystal learned in Iraq, rogue networks are capable of terrible harm, and River Rogue style hierarchies are not very effective against them.<sup>211</sup> It takes a network to fight a network. How will an effective culture of compliance operate in a connected environment? Perhaps, instead of fearing their loss of control in the chaotic mess, successful compliance professionals of the future will use tools like behavioral ethics, anthropology, and resilience theory to help develop self-healing cultures of compliance. The challenge will be to make compliance work in the looming Age of Connectivity. The future is upon us. It is time to get ready.

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210. ROSS, *supra* note 3, at 215.

211. MCCHRISTAL, *supra* note 102, at 17–19.