

2015

## Merger and Acquisition Due Diligence: A Proposed Framework to Incorporate Data Privacy, Information Security, E-Discovery, and Information Governance into Due Diligence Practices

James A. Sherer

Taylor M. Hoffman

Eugenio E. Ortiz

Follow this and additional works at: <http://scholarship.richmond.edu/jolt>

 Part of the [Banking and Finance Law Commons](#), [Evidence Commons](#), [Internet Law Commons](#), and the [Privacy Law Commons](#)

---

### Recommended Citation

James A. Sherer, Taylor M. Hoffman & Eugenio E. Ortiz, *Merger and Acquisition Due Diligence: A Proposed Framework to Incorporate Data Privacy, Information Security, E-Discovery, and Information Governance into Due Diligence Practices*, 21 Rich. J.L. & Tech 5 (2015). Available at: <http://scholarship.richmond.edu/jolt/vol21/iss2/3>

This Article is brought to you for free and open access by UR Scholarship Repository. It has been accepted for inclusion in Richmond Journal of Law and Technology by an authorized administrator of UR Scholarship Repository. For more information, please contact [scholarshiprepository@richmond.edu](mailto:scholarshiprepository@richmond.edu).

**MERGER AND ACQUISITION DUE DILIGENCE: A PROPOSED  
FRAMEWORK TO INCORPORATE DATA PRIVACY,  
INFORMATION SECURITY, E-DISCOVERY, AND INFORMATION  
GOVERNANCE INTO DUE DILIGENCE PRACTICES**

James A. Sherer,\* Taylor M. Hoffman,\*\* & Eugenio E. Ortiz \*\*\*

Cite as: James A. Sherer, Taylor M. Hoffman & Eugenio E. Ortiz, *Merger and Acquisition Due Diligence: A Proposed Framework to Incorporate Data Privacy, Information Security, e-Discovery, and Information Governance into Due Diligence Practices*, 21 RICH. J.L. & TECH. 5 (2015), <http://jolt.richmond.edu/v21i2/article5.pdf>.

**I. INTRODUCTION**

[1] Merger and Acquisition<sup>1</sup> or “M&A” deals are both figuratively and literally big business, where the stakes for the organization are often the highest.<sup>2</sup> While casual observers might expect that the importance

---

This article was originally presented in draft form at LegalTech<sup>®</sup> West Coast 2014 on June 24, 2014. The views expressed herein are solely those of the authors, should not be attributed to their places of employment, colleagues, or clients, and do not constitute solicitation or the provision of legal advice.

\* James A. Sherer is Counsel with Baker Hostetler LLP.

\*\* Taylor M. Hoffman is a Senior Vice President and Head of eDiscovery at Swiss Re.

\*\*\* Eugenio E. Ortiz is a Researcher with Quantitative Management Associates.

<sup>1</sup> And by extension, asset purchases, divestitures, and bankruptcy transactions. See DUE DILIGENCE FOR GLOBAL DEAL MAKING: THE DEFINITIVE GUIDE TO CROSS-BORDER MERGERS AND ACQUISITIONS, JOINT VENTURES, FINANCINGS, AND STRATEGIC ALLIANCES 140, 153 (Arthur H. Rosenbloom ed., Bloomberg Press 2002); see also Fabrice Naftalski et al., Presentation at the International Association of Privacy Professionals Europe Data Protection Congress 2012: Multinational M&A and Asset Transactions: What You Need to Know before You Buy or Sell (Nov. 13-15, 2012).

attached to these deals makes each new deal the vanguard for incorporating metrics and practices regarding every efficiency and contingency, existing research demonstrates that this is decidedly not the case. Instead, modern M&A practices are just now beginning to catch-up to new technologies by including data privacy (“DP”), information security (“IS”), e-Discovery,<sup>3</sup> and information governance (“IG”)<sup>4</sup> concerns as discrete issues within the traditional due diligence paradigm.<sup>5</sup> Research further demonstrates that while parties may gain efficiencies in addressing each of these issues individually,<sup>6</sup> there may be additional benefits from addressing them together—in addition to related or ancillary tax, financial accounting, and intellectual property deal considerations.<sup>7</sup> In

---

<sup>2</sup> See Lee Gomes, *H-P’s IBM Envy Drives Deal*, WALL ST. J., May 14, 2008, at B8.

<sup>3</sup> e-Discovery refers to the preservation, review, and production of electronically stored information in the context of litigation and other regulatory matters; see Kenneth J. Withers, *Risk Aversion, Risk Management, and the “Overpreservation” Problem in Electronic Discovery*, 64 S.C. L. REV. 537, 538 (2013).

<sup>4</sup> Andrew Haslam, *Information Governance - Why Lawyers Should Take the Lead*, LEXISNEXIS FUTURE L. BLOG (Mar. 31, 2014), <http://blogs.lexisnexis.co.uk/futureoflaw/2014/03/information-governance-why-lawyers-should-take-the-lead/>, archived at <http://perma.cc/Z7VD-6YMX> (defining Information Governance as the “newer, shinier version of what used to be called Records Information Management . . . . Both focus on managing the risks posed by organization information flows.”); see also The Sedona Conference, *The Sedona Conference Commentary on Information Governance* 4 (Conor R. Crowley ed., 2013).

<sup>5</sup> See Daniel B. Garrie & Yoav M. Griver, *Digital Issues in Mergers & Acquisitions, e-Discovery, & Information Technology Systems*, 19 WIDENER L. REV. 25, 28–29 (2009).

<sup>6</sup> See Clay Deutsch & Andy West, *A New Generation of M&A: A McKinsey Perspective on the Opportunities and Challenges*, in PERSPECTIVES ON MERGER INTEGRATION 5, 6 (McKinsey & Company 2010), available at [http://www.mckinsey.com/client\\_service/organization/latest\\_thinking/mm\\_compendium-new](http://www.mckinsey.com/client_service/organization/latest_thinking/mm_compendium-new), archived at <http://perma.cc/E36S-7HC7> (Value creation stems from, among other practices, “[c]apturing traditional combinational synergies, which includes efforts to achieve economies of scale and enhanced efficiency.”).

<sup>7</sup> See Rosenbloom, *supra* note 1, at 54–55.

the right kind of transaction, this combination might just be the difference between success and failure.

[2] We examine how DP, IS, e-Discovery, and IG are intertwined by their very operation, and show how evolving practices that address each concern separately without an overarching strategy suffer from, at the very least, inefficiencies—and may, at their worst, lead to non-compliance with court orders and regulatory guidance. We argue that a strategic framework that incorporates these four issues in concert may provide an alternative method for analyzing and addressing these issues piecemeal, and that in some types of transactions (“Deals”), the framework’s application will most appropriately determine the cost of the Deal, evidence the maturity level of organization or asset targeted (the “Target”), and reduce risk for the future organization (the “Acquirer”) during and post-Deal. However, we caution that while the procedures developed in this framework are scalable across Deals of different sizes and complexities, this is not a one-size-fits-all approach. Instead, the size and complexity of the Deal will determine the extent to which the due diligence practitioners focus on the discrete aspects of the framework. Those determinations are ultimately left to the Acquirer or party undertaking the analysis.

[3] An acquisition-type Deal structure, with a Target and Acquirer, is ideal for a strategic, cost-type evaluation as the traditional due diligence practice considers deal negotiation from a zero-sum perspective: that is, each issue (and associated cost) is apportioned to either the Acquirer or the Target. Our evaluation also builds off of discrete fact patterns, developing equations which in turn provide rough calculations as to how much related efforts will actually cost when implemented by the Acquirer at the conclusion of the Deal.

[4] The reality that many M&A deals do not achieve their planners’ aspirations<sup>8</sup> indicates room for improvement in M&A practice. The

---

<sup>8</sup> See JOHN T. PHILLIPS, *MERGERS, ACQUISITIONS, DIVESTITURES AND CLOSURES: RECORDS AND INFORMATION MANAGEMENT CHECKLISTS 1* (ARMA International

structure and metrics presented in this paper are no panacea, but even modest improvements within traditional practice may impact the whole. Given the combination of the vast growth of information, the cost associated with the appropriate use and maintenance of that information, and the lack of a formalized structure for how to deal with that information in the context of M&A deals, even moderate considerations may have resounding effects.

### A. The Best Time Will Always Be the Present

[5] When organizations are spending money, there is an appetite for savings. Where there is money *on the table*, there is a greater likelihood that it will be available to address otherwise unfunded liabilities, and a much better chance that Acquirers will be able to address the combined factors presented in this paper. We also expect that, as hypothesized by other authors but not yet supported by scholarship, the more thorough the evaluation of tax, legal, and IT issues, the better the ultimate Deal performance.<sup>9</sup>

[6] Aspirations aside, current research does not demonstrate direct, measurable results from additional due diligence. Instead, the scholarship indicates that “a thorough evaluation of investment and financing issues, and legal, tax and IT compatibility” did not, in fact, directly improve Deal performance.<sup>10</sup> However, this conclusion supports the notion that long-term strategic value—rather than short-term deal costs—drives transactions.<sup>11</sup> This conclusion is bolstered by anecdotal conversations

---

Education Foundation 2011), *available at* [http://www.armaedfoundation.org/pdfs/2011\\_Rev\\_RIM\\_Checklists.pdf](http://www.armaedfoundation.org/pdfs/2011_Rev_RIM_Checklists.pdf), *archived at* <http://perma.cc/QT9C-M8VE>.

<sup>9</sup> See Mohammad Faisal Ahammad & Keith W. Glaister, *The Pre-Acquisition Evaluation of Target Firms and Cross Border Acquisition Performance*, 22 INT’L BUS. REV. 894, 898 (2013).

<sup>10</sup> *Id.* at 902.

with deal participants: when our proposed framework was presented as a way to distill value, it was seen as valuable for presenting prospective costs which would be negotiated, but that was still just a balance sheet issue for dealmakers.

[7] Dealmakers considered more pressing the strategic nature of the analysis along a maturity model spectrum,<sup>12</sup>—where shortcomings uncovered through the application of the strategic framework provided both the costs associated with those shortcomings and a view into the operations of the Target; analogous to how a mechanic checking a car without proper maintenance determines how much it will take to fix the car, but also gains insight into the car’s owner. Likewise, from an Acquirer’s perspective, even if the price is right, “the ability to buy [the Target] may have nothing at all to do with the capacity to own.”<sup>13</sup>

[8] Based on our research, real-world experience, interviews, and practitioner feedback, there may be real value associated with the application of this paper’s strategic framework which, for an appropriate and willing Acquirer, would pay for itself (many times over) by providing the following:

- Demonstrating the maturity level of the Target vis-à-vis DP, IS, e-Discovery, and IG issues;
- Determining greater cost certainty for the Deal’s bottom line, positioning the Acquirer nearer to paying the appropriate amount for the Target;

---

<sup>11</sup> See MITCHELL LEE MARKS & PHILIP H. MIRVIS, *JOINING FORCES: MAKING ONE PLUS ONE EQUAL THREE IN MERGERS, ACQUISITIONS, AND ALLIANCES* ix (2d ed. 2010).

<sup>12</sup> See AMERICAN INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS, INC. (AICPA) & CANADIAN INSTITUTE OF CHARTERED ACCOUNTANTS (CICA), *PRIVACY MATURITY MODEL 2* (2011), available at [http://www.kscpa.org/writable/files/AICPADocuments/10-229\\_aicpa\\_cica\\_privacy\\_maturity\\_model\\_finalebook.pdf](http://www.kscpa.org/writable/files/AICPADocuments/10-229_aicpa_cica_privacy_maturity_model_finalebook.pdf), archived at <http://perma.cc/U5UR-DP5Y>.

<sup>13</sup> Deutsch & West, *supra* note 6, at 5.

- Presenting integration issues at a more opportune time and increasing the odds that the resulting entity operates as planned; and
- Decreasing the Acquirer's risk.

Proper consideration of these issues will also help those Deals in which, due to competition or secrecy, information from the Target and its employees is limited. This consideration will make it more likely that the practitioner talks with the correct person, rather than a cooperative but ultimately uninformed one.

### **B. Surely This Has Been Done Before?**

[9] No. The available literature provides few instances where these issues are addressed singly<sup>14</sup> or in tandem in M&A practice; we have seen nothing documenting an omnibus approach. Likewise, our collective experience indicates that, when the ideas supporting our strategic framework are incorporated into the due diligence practice, they are often treated as logical novelties. This disregard may stem from a lack of systematic training in law school<sup>15</sup> and the sometimes haphazard training endemic of a challenging system that assigns the responsibility for the due diligence assembly and review of information to the most junior attorneys at law firms and consulting companies.

[10] These attorneys and professionals learn how to perform narrow due diligence tasks according to the existing paradigm and often do them well. However, this delegated-down assignment creates much of the traditional M&A due diligence siloing we discuss further below.<sup>16</sup> For

---

<sup>14</sup> See, e.g., Garrie & Griver, *supra* note 5, at 26.

<sup>15</sup> See, e.g., Martin B. Robins, *Intellectual Property and Information Technology Due Diligence in Mergers and Acquisitions: A More Substantive Approach Needed*, 2008 U. ILL. J.L. TECH. & POL'Y 321, 325–26 (2008) (explaining the need for subject matter experts when performing the IP and IT due diligence process).

instance, a dedicated corporate practitioner is unlikely to consider complex litigation challenges, and even less likely to *sua sponte* incorporate DP and IS concerns into an existing due diligence slate of services. But the continued development of DP, IS, e-Discovery, and IG practices, regulations, and risks dovetailing with the continued application of Moore's law to information growth<sup>17</sup> makes consideration of this strategic framework a necessity for future due diligence practices. Simply put, there will never be a better time to address these issues than present day: the application of the framework works to the benefit of the Acquirer, and any improvement in these areas should be helpful. Unlike many of the horse-trading negotiations in the due diligence context, improvements in DP, IS, e-Discovery, and IG are net positives.

[11] As briefly mentioned above, and discussed more fully below, the application of the strategic framework determines and apportions funds to cover costs and informs the Acquirer of the maturity of the Target. While this work alone is supported by findings indicating that financial and technical assessments are important aspects of due-diligence, they do not determine Deal success.<sup>18</sup> Thankfully, the Acquirer's use of the strategic

---

<sup>16</sup> See Douglas B. Schrock & Kevin Culp, *Merging the Merger Functions: Due Diligence and Integration Planning Complement Each Other*, MIDMARKET ADVANTAGE 7, 8 (Crowe Horwath 2008), available at [http://www.crowehorwath.net/crowe-horwath-global/insights/insights-assets/merging\\_the\\_merger\\_functions\\_\\_due\\_diligence\\_and\\_integration\\_planning\\_complement\\_each\\_other.aspx](http://www.crowehorwath.net/crowe-horwath-global/insights/insights-assets/merging_the_merger_functions__due_diligence_and_integration_planning_complement_each_other.aspx), archived at <http://perma.cc/BG57-HVKZ> (discussing avoidance of siloing of work during the due diligence phase of acquisition by integration of due diligence and integration teams to optimize results of an acquisition).

<sup>17</sup> See Withers, *supra* note 3, at 540 (citing Gordon E. Moore, *Cramming More Components onto Integrated Circuits*, 38 ELECTRONICS 8 (1965), available at [http://www.monolithic3d.com/uploads/6/0/5/5/6055488/gordon\\_moore\\_1965\\_article.pdf](http://www.monolithic3d.com/uploads/6/0/5/5/6055488/gordon_moore_1965_article.pdf), archived at <http://perma.cc/4ELK-6MZN> (“Acting as both cause and effect in the explosion of digital information is the decreasing cost of digital storage capacity, in accordance with the venerated Moore's Law, which predicted as early as 1965 that the capacity of digital information storage devices would double roughly every eighteen months.”)).

<sup>18</sup> See Ahammad & Glaister, *supra* note 9, at 902.



framework should also return value by reducing risk, through increased regulatory (and e-Discovery related) compliance; maintaining information related to the Deal; and providing a more solid footing for those instances where there is a requirement to get an outside valuation study of the merger offer.<sup>19</sup>

## II. BACKGROUND

### A. Traditional M&A Practice

[12] M&A (and other) Deals are done to capture synergies.<sup>20</sup> Those synergies are best realized by the Acquirer using the right information,<sup>21</sup> captured in the right volume,<sup>22</sup> in the correct context.<sup>23</sup> But while M&A activity is expected to realize greater economies of scale or improve efficiency by shifting the cost function, those types of expected benefits often fail to manifest.<sup>24</sup> Deals flounder for a number of reasons, and while Due Diligence is no elixir,<sup>25</sup> it is an easy process to critique ex post facto.

---

<sup>19</sup> See STANLEY FOSTER REED ET AL., *THE ART OF M&A: A MERGER/ACQUISITION/BUYOUT GUIDE* 391–92 (McGraw-Hill 4th ed. 2007).

<sup>20</sup> See, e.g., PETER BLATMAN ET AL., *THE ROLE OF INFORMATION TECHNOLOGY IN MERGERS AND ACQUISITIONS* (Deloitte M&A Consultative Services 2008), available at [https://www.deloitte.com/view/en\\_by/by/221d1350a8efd110VgnVCM100000ba42f00aRCRD.htm](https://www.deloitte.com/view/en_by/by/221d1350a8efd110VgnVCM100000ba42f00aRCRD.htm), archived at <https://perma.cc/9ZUG-6VQ4>.

<sup>21</sup> See Andrew D. James et al., *Integrating Technology into Merger and Acquisition Decision Making*, 18 *TECHNOVATION* 563, 567, 570–71 (1998).

<sup>22</sup> See, e.g., Ahammad & Glaister, *supra* note 9, at 895–98, 902 (suggesting that “the more the acquiring firm learns about the target firm through thorough due diligence the better will be cross border acquisition performance.”).

<sup>23</sup> See ROBERT F. HARTLEY, *MANAGEMENT MISTAKES AND SUCCESSES* 319–20 (Lise Johnson ed., John Wiley & Sons, Inc., 10th ed. 2011).

<sup>24</sup> See John Engberg et al., *The Effect of Mergers on Firms’ Costs: Evidence from the HMO Industry*, 44 *Q. REV. ECON. & FIN.* 574, 575–76, 592 (2004).

Multiple points of failure thus magnify the importance of the Due Diligence process from the perspective of the Acquirer, where the uncertain proposition of the Deal's ultimate success relies upon appropriate use of the Due Diligence process (and its memorialization) to defend the rationale of the Deal, reduce the risks associated with both the Deal and the post-Deal going concern, and justify the costs paid and strategy envisioned in the Deal.

[13] Due Diligence's overarching rationale is to determine whether the Acquirer should even proceed with a given deal. Based on whether the Target fits within the strategic aims of the Acquirer, the primary concern—which may also kill the deal—is whether the diligence demonstrates that the Target is misunderstood by Acquirer management, or presents incompatible business philosophy, or technological, cultural, or personal incompatibilities.<sup>26</sup> This traditional “fit” practice properly considered the following characteristics of the Target:

- Assets;
- Contracts;
- Customers;
- Employee agreements;
- Employee benefits;
- Environmental issues;
- Facilities, plant, and equipment;
- Financial condition;
- Foreign operations and activities;
- Legal factors;
- Product issues;
- Supplier issues; and

---

<sup>25</sup> See, e.g., Robert Sher, *Why Half of All M&A Deals Fail, and What You Can Do About It*, FORBES (Mar. 19, 2012, 4:09 PM), <http://www.forbes.com/sites/forbesleadershipforum/2012/03/19/why-half-of-all-ma-deals-fail-and-what-you-can-do-about-it/>, archived at <http://perma.cc/S5HB-Z53D>.

<sup>26</sup> See Robins, *supra* note 15, at 324.

- Tax issues.<sup>27</sup>

Because of its broad application, the traditional fit practice was the best route to addressing the primary concern voiced by Acquirers to their business advisors: the determination that there were no “black holes” or unanticipated substantial liabilities not covered by warranties.<sup>28</sup>

[14] While not primary to the process in the minds of Acquirers, the use of due diligence findings to negotiate price also serves as an important part of the Deal process.<sup>29</sup> Here, negotiations regarding the price of the Deal are discussed in the form of a zero-sum-game. If there is a cost associated with the merger, by contract or default one party will bear it.<sup>30</sup> Because there is a winner and a loser, both the Acquirer and Target may conduct independent valuation analyses to determine the Target’s worth.<sup>31</sup> The focus of those efforts within traditional due diligence process has been the costs associated with the tangible, internal environment and an audit of the Target’s hard assets to determine potential liabilities as well as future projected growth scenarios following acquisition of the Target.<sup>32</sup> These

---

<sup>27</sup> See LINDA S. SPEDDING, *THE DUE DILIGENCE HANDBOOK: CORPORATE GOVERNANCE, RISK MANAGEMENT AND BUSINESS PLANNING* 7–8 (CIMA Publishing 2009).

<sup>28</sup> See Duncan Angwin, *Mergers and Acquisitions across European Borders: National Perspectives on Preacquisition Due Diligence and the Use of Professional Advisers*, 36 *J. WORLD BUS.* 32, 50 (2001), available at <http://www.sciencedirect.com/science/article/pii/S1090951600000535>, archived at <http://perma.cc/U9J9-5B6N>.

<sup>29</sup> See, e.g., *id.* at 51.

<sup>30</sup> See DONALD DEPAMPHILIS, *MERGERS AND ACQUISITIONS BASICS: NEGOTIATION AND DEAL STRUCTURING* 136 (Academic Press 2011).

<sup>31</sup> See PATRICK A. GAUGHAN, *MERGERS, ACQUISITIONS, AND CORPORATE RESTRUCTURINGS* 22 (John Wiley & Sons, Inc., 5th ed. 2011), available at <http://download.e-bookshelf.de/download/0000/5806/40/L-G-0000580640-0002383571.pdf>, archived at <http://perma.cc/J9J4-D9PS>.

issues are then implemented into a typical term sheet identifying the Acquirer and Target, the purchase price, and factors that may affect the Deal price prior to closing (such as changes in the target's financial performance).<sup>33</sup> The term sheet will also include the consideration paid by the Acquirer (i.e., cash or stock); who pays what expenses; other unique elements; and all major representations and warranties.<sup>34</sup>

### **B. The Maturation of M&A Practice Due Diligence**

[15] Concerns about due diligence in the 1980's focused on cursory due diligence which led to deals that produced sobering results.<sup>35</sup> In fact, some practitioners directly posited the hypothesis that a "lack of attention to pre-merger strategy setting, IT due diligence, post-merger IT planning and execution, as well as poor IT/business coordination, are dominant factors in explaining the empirical rate of M&A success" or their lack thereof, with findings consistent with that hypothesis.<sup>36</sup> Certainly, better models of litigation issues led to the conclusion that, in some cases Targets were worth less than the book value.<sup>37</sup> In some cases, Targets had uncertain and unknown liabilities, such as pending litigation, which once uncovered, made true value trail book value.<sup>38</sup> Additional experience gave further certainty to some of these issues, and valuation techniques

---

<sup>32</sup> See Michael G. Harvey & Robert F. Lusch, *Expanding the Nature and Scope of Due Diligence*, 10 J. BUS. VENTURING 5, 7 (1995).

<sup>33</sup> See GAUGHAN, *supra* note 31, at 23.

<sup>34</sup> See *id.*

<sup>35</sup> See Harvey & Lusch, *supra* note 32, at 5.

<sup>36</sup> BLATMAN ET AL., *supra* note 20.

<sup>37</sup> See GAUGHAN, *supra* note 31, at 541.

<sup>38</sup> See *id.*

improved.<sup>39</sup>

[16] Twenty years ago, due diligence of Target IS and IT was carried out in less than 50% of Deals.<sup>40</sup> In effect, period due diligence practices involving technology were little more than inventories of “IT staff numbers, hardware, software and communications capabilities of the target organization.”<sup>41</sup> The quality and effectiveness of Target systems were overlooked or ignored, and practitioners did not evaluate Target information infrastructure, IS, or the skills-base of the Target employees.<sup>42</sup> Practices have improved somewhat in recent years, gradually expanding into practices that include, among other things, information technology and systems information in addition to the standard financial and legal data.<sup>43</sup>

[17] This expansion has led to a due diligence practice that attempts to incorporate “both *tangible* and *intangible* dimensions” of each identified function.<sup>44</sup> But practice has been slow to envisage the use of information as a separate function that itself bridges multiple functions. Instead, its presence during Deals can become either a “major asset or a convoluted and confusing nightmare.”<sup>45</sup>

[18] Present day practice is still maturing to consider this issue in a

---

<sup>39</sup> See, e.g., Peter McKiernan & Yasmin Merali, *Integrating Information Systems After a Merger*, 28 LONG RANGE PLAN. 54, 58 (1995).

<sup>40</sup> See *id.*

<sup>41</sup> *Id.*

<sup>42</sup> See *id.*

<sup>43</sup> See e.g., Harvey & Lusch, *supra* note 32, at 5.

<sup>44</sup> *Id.* at 7, 9.

<sup>45</sup> PHILLIPS, *supra* note 8, at 16.

constructive form, driven in part by burgeoning legal implications.<sup>46</sup> Properly used IT assets, and IG and Personally Identifiable Information (“PII”) policies and practices may arguably increase realized earning power from the Deal. Their use to further strategic objectives—or hinder them—is also part of the diligence process. Here, the reverse of the hidden liability issue discussed above exists, where the liquidation value of the Target does not directly measure, and may even mask, the earning power of the firm’s assets and the Target’s assets will further vary in value, depending on the Acquirer’s appropriate evaluation, incorporation, and use of those assets.<sup>47</sup>

### C. Present-Day Practices

[19] Modified, adapted diligence practices have led to better results in specific case studies where the parties identified and acted upon redundancies.<sup>48</sup> In at least one merger between equals, redundancies were eliminated on both sides of the deal, with related decisions made before the Deal’s announcement.<sup>49</sup> In that case, this led to a “profitable integration of the merger within a year.”<sup>50</sup> But many unsuccessful efforts instead rely on the best of intentions and expectations that the new enterprise will simply absorb the costs and work associated with doing the

---

<sup>46</sup> See GAUGHAN, *supra* note 31, at 539 (citing *Smith v. Van Gorkom*, 488 A.2d 858, 873–75 (Del. 1985)) (“This ruling is significant because it affirms the need for a formal valuation analysis in all mergers, acquisitions, and LBOs. Ultimately, then, the *Smith v. Van Gorkom* decision is important because it set forth, under the business judgment rule, the responsibilities of directors of public companies to have a thorough and complete valuation analysis conducted by an objective party, such as an investment bank or valuation firm.”).

<sup>47</sup> See, e.g., GAUGHAN, *supra* note 31, at 542.

<sup>48</sup> See HARTLEY, *supra* note 23, at 209.

<sup>49</sup> See *id.*

<sup>50</sup> *Id.*

post-deal work—expectations unsupported by data and practice.

[20] In the most prevalent form, many organizations and aspiring Acquirers overly rely on citizen stewards acting outside formal, structured IG practices. These false beliefs that enterprise information is or will be well-managed<sup>51</sup> may undercut an evaluation into whether an Acquirer truly has sufficient resources manage the integration process.<sup>52</sup> As one study noted, though participants had aspirations and beliefs that such internal efforts were truly successful, reports indicated that the extent to which internal resources, such as law department counsel and IT department staff members, actually play a role (in this case, in e-Discovery related services) were in reality “‘negligible’ or ‘minor.’”<sup>53</sup> Therefore success in these areas does not happen organically, or by happenstance; there is a cost to a workable strategy that both develops and implements necessary change.

[21] Current diligence practices which attempt to incorporate the issue of information use generally are still subject to traditional diligence limitations, among them the practice of limiting and sequestering the Acquirer’s team to an electronic data room, or a conference room filled with paper requested by the Acquirer’s due diligence team (the “DDT”).<sup>54</sup> Access to the Target’s key personnel is often limited to the data room as well, or the Acquirer may obtain “limited access to information on a

---

<sup>51</sup> See SAUL JUDAH ET AL., PREDICTS 2014: INFORMATION GOVERNANCE AND MDM ARE CRITICAL FOR DIGITAL TRANSFORMATION (Gartner 2013), *available at* <https://www.gartner.com/doc/2628017/predicts--information-governance-mdm>, *archived at* <http://perma.cc/3Q6B-R4GC>.

<sup>52</sup> See, e.g., Sher, *supra* note 25.

<sup>53</sup> NICHOLAS M. PACE & LAURA ZAKARAS, WHERE THE MONEY GOES: UNDERSTANDING LITIGANT EXPENDITURES FOR PRODUCING ELECTRONIC DISCOVERY 33 (Rand Institute for Civil Justice 2012), *available at* [http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND\\_MG1208.pdf](http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1208.pdf), *archived at* <http://perma.cc/5D4H-NEJR>.

<sup>54</sup> See DEPAMPHILIS, *supra* note 30, at 27.

password-protected website.”<sup>55</sup>

[22] The data room remains “a poor substitute for a tour of the seller’s facilities [even with the advent of] [v]irtual data rooms . . . containing financial and other data relevant to the seller.”<sup>56</sup> This type of access is even more constrained when the practitioners requesting interviews of specific personnel are not incorporating questions related to the issue of information use. And while the answers to these issues might be provided only upon specific request, these issues affect every size and type organization.<sup>57</sup>

#### **D. Changes Warrant Further Due Diligence Evolution**

[23] The data that Targets create and rely upon has grown and will continue to grow; that rate of growth is steadily accelerating. Various experts hypothesize that the continued growth of storage capacity acts as both the cause for and effect of this growth in accord with the “venerated Moore’s Law, which predicted as early as 1965 that the capacity of digital information storage devices would double roughly every eighteen months.”<sup>58</sup> In addition to the seeming ambrosia of deceptively cheap storage at initial stages of data aggregation (more on that later), different technologies also have a combinatory effect, where advances in multiple areas increase the amount of communication across those platforms, in effect continuing the same conversation across multiple media platforms and manifesting as a virtual skein the Gartner IT advisory firm labeled the “Nexus of Forces.”<sup>59</sup>

---

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> *See, e.g.,* JUDAH ET AL., *supra* note 51, at 1, 5.

<sup>58</sup> Withers, *supra* note 3, at 540.

<sup>59</sup> JUDAH ET AL., *supra* note 51, at 11 (“Nexus of Forces [NoF]” is “[t]he converging and mutually reinforcing social, cultural and technological factors that Gartner has identified



[24] A changing regulatory landscape has increased the risk associated with unknown DP, IS, e-Discovery, and IG practices, where commentators note that there are over 4,000 compliance regulations today in the United States alone.<sup>60</sup> Alone and in combination, these regulations contemplate “[c]orporate governance, security breach notification, privacy and data protection, and industry-specific regulations—such as money-laundering or bribery laws”—while describing physical security measures, application enhancements, and record retention and preservation requirements.<sup>61</sup>

---

as the Nexus of Forces—social networking, mobile communications, cloud computing and information—that drive fundamental changes across industries. The Nexus of Forces causes fundamental disruption to the operational models, the business strategies and the collaboration patterns of organizations.”).

<sup>60</sup> See STEVE PALOMINO & ART VANCIL, A PRACTICE AID FOR RECORDS RETENTION 3 (AICPA Information Technology Section 2012), *available at* [http://www.aicpa.org/InterestAreas/InformationTechnology/Resources/BusinessIntelligence/DownloadableDocuments/Records\\_Retention\\_Mktg.pdf](http://www.aicpa.org/InterestAreas/InformationTechnology/Resources/BusinessIntelligence/DownloadableDocuments/Records_Retention_Mktg.pdf), *archived at* <http://perma.cc/9YUK-WSZT> (citing *EMC Centera Governance Edition and Compliance Edition Plus*, <http://www.emc.com>, *archived at* <http://perma.cc/5V3B-QFLP>).

<sup>61</sup> DEBRA LOGAN ET AL., INFORMATION GOVERNANCE BEST PRACTICE: ADOPT A USE CASE APPROACH 6 (Gartner 2013), *available at* <https://www.gartner.com/doc/2630023/information-governance-best-practice-adopt>, *archived at* <http://perma.cc/9SZC-KPU7>; *see also* FRENCH CALDWELL, HYPE CYCLE FOR LEGAL AND REGULATORY INFORMATION GOVERNANCE 4 (Gartner 2013), *available at* <https://www.gartner.com/doc/2556415/hype-cycle-legal-regulatory-information>, *archived at* <http://perma.cc/KCN6-34FS> (“The U.S. Securities and Exchange Commission’s requirements for brokerages to retain and supervise email, social media and other electronic communications [and] [m]ultiple financial services regulations globally that require analyzing data from across multiple risk silos to determine overall risk and compliance exposures, including newly drafted social media risk management guidelines from the U.S. Federal Financial Institutions Examination Council [and] [a]mendments to the U.S. Federal Rules of Civil Procedure (FRCP) and the U.K. Civil Procedure Rules, which specifically call out electronically stored information [and] [s]ecurity breach privacy laws in the U.S. and Germany that require companies to notify customers that their personal information has been compromised [and] [a]nti-fraud, anti-bribery and anti-corruption laws in the U.S., the U.K., Germany and elsewhere.”).

[25] Responses to these regulations are complex as well, with organizations adding layers and layers of compliance to existing IT processes in the wake of new regulation, incorporating binding requirements, revised corporate and departmental policies, new controls that begin to overlap, and associated audits. Some organizations facing these hurdles claim that “[t]here is no way to stay in compliance, safeguard privacy, protect IP or decrease litigation costs while responding to the appropriate legal challenges and regulatory requests outside of a unified information governance framework.”<sup>62</sup> Under those circumstances and despite a lack of success, it is especially surprising that organizations still attempt to manage their own practices ]according to “functional, formal, and contractual convergence.”<sup>63</sup> Acquirers may be better served assuming an environment of non-compliance for Targets, and instead working on determining an appropriate risk analysis methodology for post-Deal activities.

### E. Data Privacy

[26] As information connectivity has increased, so too have domestic and international data transfers and DP concerns. Many United States-specific public and private sector standards implicate the collection, transfer, and use of PII,<sup>64</sup> including laws regulating the “transfer, use and

---

<sup>62</sup> LOGAN ET AL., *supra* note 61, at 6.

<sup>63</sup> Arturo Bris & Christos Cabolis, *Corporate Governance Convergence through Cross-Border Mergers: The Case of Aventis*, in CORPORATE GOVERNANCE AND REGULATORY IMPACT ON MERGERS AND ACQUISITIONS: RESEARCH AND ANALYSIS ON ACTIVITY WORLDWIDE SINCE 1990 71–72 (Greg N. Gregoriou & Luc Renneboog eds., Academic Press 2007) (“Functional convergence occurs when institutions are flexible enough to respond to demands by market participants and no formal change in the rules is necessary. Formal convergence occurs when a change in the law forces the adoption of best practices. Finally, contractual convergence occurs when firms change their own corporate governance practices by committing to a better regime, possibly because the legal system lacks flexibility or laws cannot be changed.”).

disclosure [in the context of] medical-based class action; financial services-based litigation” and others.<sup>65</sup> But traditional, higher-profile risk assessments regarding DP are normally associated with cross-border transfers of that information or other activity with cross-border implications.<sup>66</sup> These concerns are therefore heightened during any deals which touch upon multinational practice and especially those which rely upon new markets or customers for their strategic success. Here, research on cross-border Deals confirms what logic suggests: “cross-border deals may present some unique opportunities but they also bring with them unique risks that may even offset the returns.”<sup>67</sup>

[27] The increased connectivity brought by e-mail and electronic documents is not the only force spreading data transfers and their implicated DP. Further prospective changes in information sharing and business operations occur as organizations modify traditional practices and incorporate new technologies, social media, the cloud, and bring-your-own-device (“BYOD”) policies. There are no exceptions; every organization wrestles with some connectivity issue, and some are even reverting to earlier data management modes, such as those organizations operating in geographies forbidding employee communication monitoring, and where BYOD pioneers rescind policies and remove employee options to select their own computing devices.<sup>68</sup>

---

<sup>64</sup> See generally PETER P. SWIRE & KENESA AHMAD, U.S. PRIVATE-SECTOR PRIVACY: LAW AND PRACTICE FOR INFORMATION PRIVACY PROFESSIONALS 16, 21 (International Association of Privacy Professionals 2012) (noting that while there are no general federal standards regarding public privacy notices, sector-specific statutes such as HIPAA, Gramm-Leach-Bliley, and COPPA do impose such requirements).

<sup>65</sup> Jeffrey Ritter, *Webcast: Tips to Identify and Alleviate Hidden e-Discovery Costs*, TECHTARGET SEARCHCOMPLIANCE (Aug. 27, 2013), <http://searchcompliance.techtargget.com/video/Webcast-Tips-to-identify-and-alleviate-hidden-e-discovery-costs>, archived at <http://perma.cc/63QG-GYVW>.

<sup>66</sup> See SWIRE & AHMAD, *supra* note 64, at 24.

<sup>67</sup> See GAUGHAN, *supra* note 31, at 554.

[28] Most scholarship has focused on the concept of DP as it developed through European standards. There is also a substantial overlap between international e-Discovery issues and their intersection with foreign data protection and privacy laws, recognized as a significant e-Discovery trend.<sup>69</sup> Some cross-border Deals already incorporate DP into initial due diligence, as seen in late 2013 when a sale was abandoned after a Canadian Acquirer scuttled a deal where the U.S.-based asset was unusable due to DP concerns.<sup>70</sup> That very risk analysis for DP issues is currently being decided by U.S. judges influenced by U.S. practitioners, and weighs heavily on the e-Discovery issues where “[p]rivacy and personal information that is the target of privacy regulation is increasingly influencing how e-[D]iscovery is conducted.”<sup>71</sup>

---

<sup>68</sup> See Richard Walters, *Bringing IT out of the Shadows*, 2013 NETWORK SECURITY 5, 8 (2013).

<sup>69</sup> See, e.g., EXTERRO INC., FIVES STEPS TO AVOID COMMON LEGAL HOLD MISTAKES 4, available at <http://www.jdsupra.com/legalnews/five-steps-to-overcoming-common-legal-ho-40170/>, archived at <http://perma.cc/3QKG-QUCS> (citing BROWN ET AL., 2012 YEAR-END ELECTRONIC DISCOVERY AND INFORMATION LAW UPDATE: MOVING BEYOND SANCTIONS AND TOWARD SOLUTIONS TO DIFFICULT PROBLEMS 2 (GIBSON, DUNN & CRUTCHER LLP 2013), available at <http://www.gibsondunn.com/publications/pages/2012-YearEnd-Electronic-Discovery-Update.aspx>, archived at <http://perma.cc/RX3Q-QREP>).

<sup>70</sup> See Texas Attorney General’s Objection [to Protect Consumer Privacy] to the Trustee’s Motion to Approve Sale Under 11 U.S.C. § 363(b)(1) at 1, 12–13, *In re True Beginnings, LLC* (E.D. Tex. Oct. 9, 2013) (No. 12-42061), available at [https://www.texasattorneygeneral.gov/newspubs/releases/2013/True\\_Beginnings\\_objection\\_to\\_sale.pdf](https://www.texasattorneygeneral.gov/newspubs/releases/2013/True_Beginnings_objection_to_sale.pdf), archived at <https://perma.cc/FJ9E-KWJ4>; see also Jacob Gershman, *Privacy Concerns Nix Sale of Online Dating Site*, WALL ST. J. L. BLOG (Oct. 23, 2013, 5:48 PM), <http://blogs.wsj.com/law/2013/10/23/privacy-concerns-nix-sale-of-online-dating-site/> (Canadian-owned dating site PlentyOfFish “pulled the plug on its offer to buy a bankrupt American rival after Texas’s attorney general warned that the sale would expose millions of singles to privacy risks”), archived at <http://perma.cc/AE22-MR6Q>.

<sup>71</sup> Ritter, *supra* note 65.

## F. Information Security

[29] The transfer of data and associated DP concerns interrelate directly with the management of those documents' access and storage, traditionally known as data or information security. Here, the gradual evolution of IS has included passwords and encryption techniques associated with information, access rights, or physical security associated with the electronic assets. When merged with DP concerns, this combination may incorporate practices "such as 'tokenization,' where sensitive data is replaced with unique identification symbols that cannot be mathematically reversed."<sup>72</sup>

[30] Diffuse locations of information result from instances of risky Bring Your Own Software ("BYOS") policies as well as cloud data transfers, one-off operations, BYOD, productivity suites, social media, and shadow IT.<sup>73</sup> All contribute to "vicarious liability and corporate reputation" concerns as well as additional concerns associated with hacker data breaches or even data breaches that begin with employees "using personal devices to access the corporate network, often without their employer's permission."<sup>74</sup>

[31] There are breach response laws associated with data breach risks, as well as some abbreviated mention of requirements in case law. But while the current body of law is limited regarding organizational testing of target methods and practices, at least one judge found that so-called

---

<sup>72</sup> Judith A. Selby & James A. Sherer, BakerHostetler, *Information Governance—2013 in Review*, DATA PRIVACY MONITOR (Dec. 27, 2013), <http://www.dataprivacymonitor.com/online-privacy/information-governance-2013-in-review/>, archived at <http://perma.cc/S5AP-TCX2>.

<sup>73</sup> See Walters, *supra* note 68, at 6–7.

<sup>74</sup> *Id.* at 7 (citing Ellen Messmer, *Mobile BYOD Users Want More Security*, NETWORK WORLD (May 9, 2012), <http://www.networkworld.com/article/2188364/smartphones/mobile-byod-users-want-more-security.html>, archived at <http://perma.cc/R4HM-MN6H>).

Monday morning quarterbacking would certainly incorporate an after-the-fact assessment of liability, looking to what technology was available at the time of the problem that might have prevented it.<sup>75</sup>

[32] While Data Security concerns are only occasionally mentioned among many potential considerations within M&A practice, failures on the IS front to thoroughly evaluate the Target's IT infrastructure are often included as causes of post-acquisition challenges, problems, issues, and obstacles.<sup>76</sup> Commentators are explicit in their concerns, noting that IS should instead be the first part of the due diligence practice.<sup>77</sup> This approach would incorporate both informal discussions with the Target's management, which in turn incorporate the Target's commitment and ability to perform its practices, as well as requests for any third-party reports or certifications of the Target's practices.<sup>78</sup>

[33] Despite the insistence that IS is a primary and key component of due diligence practices, it "may be the least studied of all corporate activities in pre-acquisition negotiations."<sup>79</sup> At least one study found that current due diligence practices provide information that may be "adequate for major decision-making regarding human resources, finance, general management, operations, marketing and manufacturing," but that fewer than half of Deals incorporated full information on even basic software or voice and data communication systems.<sup>80</sup> The reasoning behind this divide between practice and importance was not entirely clear. It may be that information regarding Target IS/IT infrastructure is not made freely

---

<sup>75</sup> See, e.g., Robins, *supra* note 15, at 353.

<sup>76</sup> See, e.g., Ahammad & Glaister, *supra* note 9, at 897.

<sup>77</sup> See, e.g., Robins, *supra* note 15, at 350.

<sup>78</sup> See *id.*

<sup>79</sup> McKiernan & Merali, *supra* note 39, at 57.

<sup>80</sup> *Id.*

available to the Acquirer, that collection efforts are infrequent due to a lack of time, priority, or representation at the deal table,<sup>81</sup> that the right questions are not being asked at the right time, or Acquirers simply do not see the value in purchasing diligence services that address these issues.

[34] These mysteries should be concerning. Some 83% of enterprise IT managers report that employees procure cloud-based applications without the involvement of their IT departments.<sup>82</sup> In smaller organizations, “70% of IT managers . . . discover[] instances of cloud-based services being used without prior consultation with the IT department”<sup>83</sup> or other poor practices that increase business risk and operational costs.<sup>84</sup>

[35] These issues occur regardless of employee intentions, and despite the fact that “four-fifths of employees knew that using unapproved IT could compromise the security posture” of their organization.<sup>85</sup> It is therefore unlikely that any Target will have full compliance, and the limited instances of due diligence practices that have attempted to assess the Target’s “risks and ability to remediate issues”<sup>86</sup> therefore fall short of an IS-specific solution.

---

<sup>81</sup> *See id.*

<sup>82</sup> Walters, *supra* note 68, at 5.

<sup>83</sup> *Id.*

<sup>84</sup> *See* JUDAH ET AL., *supra* note 51, at 1.

<sup>85</sup> Walters, *supra* note 68, at 5.

<sup>86</sup> Mark Diamond, *A Records Management Checklist for Mergers and Acquisitions: Information Governance Due Diligence Is Key to Avoiding Surprises*, INSIDE COUNSEL (March 20, 2013), <http://www.insidecounsel.com/2013/03/20/a-records-management-checklist-for-mergers-and-acq>, archived at <http://perma.cc/HY79-KMQ8>.

### G. E-Discovery

[36] E-Discovery as a separate concept is a relatively recent development associated primarily with United States litigation practices; under current jurisprudence, litigation or the reasonable anticipation thereof<sup>87</sup> within the U.S. and elsewhere prompts organizations to preserve and/or create entirely new stores of extraordinarily sensitive information—often Electronically Stored Information (“ESI”)—and retain that information regardless of normal IG practices.<sup>88</sup> E-Discovery is both expensive and risky, and commentators helpfully note that every organization faces some sort of e-Discovery challenge.<sup>89</sup>

[37] In a Deal, not only do the stores of ESI created through the operation of e-Discovery practices often transfer from the Target to the Acquirer, the duty to properly issue and maintain legal holds may as well,

---

<sup>87</sup> See *The Sedona Conference Commentary on Legal Holds: The Trigger & The Process*, 11 SEDONA CONF. J. 265, 267 (2010) (“[W]henver litigation is reasonably anticipated, threatened, or pending against an organization, that organization has a duty to undertake reasonable and good faith actions to preserve relevant and discoverable information and tangible evidence. This duty arises at the point in time when litigation is reasonably anticipated whether the organization is the initiator or the target of litigation. The duty to preserve requires a party to identify, locate, and maintain information and tangible evidence that is relevant to specific and identifiable litigation. It typically arises from the common law duty to avoid spoliation of relevant evidence for use at trial and is not explicitly defined in the Federal Rules of Civil Procedure.”).

<sup>88</sup> This “exception” is often mandatory in many RIM and IG policies. See Vicki Miller Luoma, *Computer Forensics and Electronic Discovery: The New Management Challenge*, 25 COMPUTERS & SECURITY 91, 96 (2006) (When creating an “electronic document retention and deletion policy . . . [a]ny such policy must retain the flexibility to implement litigation holds by suspending routine document deletion” when litigation is imminent.).

<sup>89</sup> See COHASSET ASSOCS., MER 2012 SURVEY: ELECTRONICALLY STORED INFORMATION (ESI)—LEGAL HOLDS & DISPOSITIONS 5 (2012), available at <http://www.cohasset.com/getDownload.php?id=15>, archived at <http://perma.cc/4ZVE-HKL8> (demonstrating how in one survey, 100% of large organizations were involved in a litigation hold “very broad in nature affecting a large amount of information”).



as legal holds can reach across the transaction, and even through bankruptcy.<sup>90</sup> These concerns were evidenced in *In re NTL, Inc.*,<sup>91</sup> where the court addressed a post-bankruptcy, securities class action that continued as a claim against one of the subsidiaries.<sup>92</sup> Electronically stored documents were destroyed, and the court found that the e-Discovery duty to preserve began with the former company, but ran to the successor, thereby rejecting the successor's claim and imposing a number of sanctions—including fees, costs, and adverse jury instructions.<sup>93</sup>

[38] Acquirers have also encountered third-party issues, where confirming the location of and subsequently securing e-Discovery related ESI (as well as other information) also implicates the Target's law firms, service vendors, subsidiaries, and third-party repositories.<sup>94</sup> In turn, these third-parties have become targets for corporate espionage and hacking, as ESI relevant to litigation “[i]s some of the most volatile information a company may control. It is the evidence of their truth or their innocence or possibly liability.”<sup>95</sup> These concerns further extend to data *about* the data, such as maintaining chain-of-custody documentation for litigation-held materials, as well as maintaining the integrity of metadata associated with those materials.<sup>96</sup>

---

<sup>90</sup> See, e.g., ROBERT D. BROWNSTONE & TODD R. GREGORIAN, WRANGLING, LASSOING AND ROPING AT THE M&A CORRAL II (2008), available at [http://www.fenwick.com/FenwickDocuments/VCE\\_Wrangling\\_Lassoing\\_Roping\\_M-A\\_Corral.pdf](http://www.fenwick.com/FenwickDocuments/VCE_Wrangling_Lassoing_Roping_M-A_Corral.pdf), archived at <http://perma.cc/8222-QKEU>.

<sup>91</sup> See *Gordon Partners v. Blumenthal (In re NTL, Inc. Sec. Litig.)*, 244 F.R.D. 179, 193 (S.D.N.Y. 2007).

<sup>92</sup> See *id.* at 181.

<sup>93</sup> See BROWNSTONE & GREGORIAN, *supra* note 90, at II.

<sup>94</sup> See Ritter, *supra* note 65.

<sup>95</sup> *Id.*

<sup>96</sup> See Anders O. Flaglien et al., *Storage and Exchange Formats for Digital Evidence*, 8 DIGITAL INVESTIGATION 122, 122 (2011).

## H. Information Governance

[39] The proper management of information—IG and Records and Information Management (“RIM”) activities associated with how information is managed generally according to the plans and strategies of the organization—is the glue that holds many of the other associated issues together.<sup>97</sup> Gartner further incorporates the specification of decision rights and an accountability framework to direct the “valuation, creation, storage, use, archiving and deletion of information,”<sup>98</sup> including “the processes, roles, standards and metrics that ensure the effective and efficient use of information to enable an organization to achieve its goals.”<sup>99</sup> In the context of a fact finder judgment within the U.S., organizations “cannot wait until litigation happens to attempt to retrieve information or to create a plan. That is a plan for disaster. It would be like first deciding how to evacuate passengers once you hit the iceberg. A safe plan involves preplanning and preparation.”<sup>100</sup>

[40] While there are quite a few issues built into the concept of IG, for the most part, an organization may govern its information as it sees fit. As recognized by the U.S. Supreme Court in dicta, IG policies are sometimes

[C]reated in part to keep certain information from getting into the hands of others[—]including the Government, are common in business, . . . [and a manager may] instruct his employees to comply with a valid document retention

---

<sup>97</sup> See COHASSET ASSOCS., 2013 | 2014 INFORMATION GOVERNANCE BENCHMARKING SURVEY 14 (2014), available at [http://investors.ironmountain.com/files/doc\\_downloads/IRM%20-%20Benchmarking%20Survey.pdf](http://investors.ironmountain.com/files/doc_downloads/IRM%20-%20Benchmarking%20Survey.pdf), archived at <http://perma.cc/8222-QKEU>.

<sup>98</sup> CALDWELL, *supra* note 61, at 3.

<sup>99</sup> JUDAH ET AL., *supra* note 51, at 11.

<sup>100</sup> Luoma, *supra* note 88, at 96.

policy under ordinary circumstances.<sup>101</sup>

There is some case law governing appropriate information governance practices<sup>102</sup> which may include “duties they owed to third parties in connection with litigation.”<sup>103</sup> But while there is wide latitude for an organization’s choice of policy, it must follow its IG policies or face attendant risk.<sup>104</sup> Organizations with no policies face the greatest hurdles.<sup>105</sup> Of course, an IG regime is more than a strategy. With the advent of mindless ESI creation, organizations must also create adequate storage space, hardware, and software to ensure safe storage of necessary information for the requisite time periods and be able to retrieve those documents.<sup>106</sup>

[41] These concerns are absolutely recognized in the M&A context, where related risks may exist as hidden liabilities within acquired companies.<sup>107</sup> Without hyperbole, this risk exists everywhere: every

---

<sup>101</sup> Arthur Andersen LLP v. United States, 544 U.S. 696, 704 (2005).

<sup>102</sup> See, e.g., Phillip M. Adams & Assocs. v. Dell, Inc., 621 F. Supp. 2d 1173, 1193 (D. Utah 2009); Gippetti v. UPS, No. C07-00812 RMW (HRL), 2008 U.S. Dist. LEXIS 109613, at \*9–12 (N.D. Cal. Aug. 6, 2008); Connor v. Sun Trust Bank, 546 F. Supp. 2d 1360, 1376 (N.D. Ga. 2008); Kozlowski v. Sears, Roebuck & Co., 73 F.R.D. 73, 76–77 (D. Mass. 1976).

<sup>103</sup> Philip J. Favro, *Information Technology: Sea Change or Status Quo: Has the Rule 37(e) Safe Harbor Advanced Best Practices for Records Management?*, 11 MINN. J.L. SCI. & TECH. 317, 334 (2010).

<sup>104</sup> See Doe v. Norwalk Cmty. Coll., 248 F.R.D. 372, 378 (D. Conn. 2007).

<sup>105</sup> See, e.g., Technical Sales Assocs. v. Ohio Star Forge Co., No. 07-11745, 2009 U.S. Dist. LEXIS 22431, at \*18, \*22 (E.D. Mich. Mar. 19, 2009); Keithley v. Home Store.com, Inc., No. C-03-04447 SI (EDL), 2008 U.S. Dist. LEXIS 61741, at \*18–19, \*47–49 (N.D. Cal. Aug. 12, 2008).

<sup>106</sup> See Luoma, *supra* note 88, at 96.

<sup>107</sup> See Diamond, *supra* note 86.

organization stores and manages data it does not need, and those organizations which have undertaken systematic analyses of existing data stores consistently indicate that “redundant, outdated, trivial and risky data represents between 15% and 60%” of the data they maintain.<sup>108</sup>

[42] As mentioned above, there are direct costs associated with doing nothing. These are also expensive costs, even if not immediately visible or straightforward. While the purchase price of individual servers needed to store preserved data may not be impressive, “when associated expenses for network connections, maintenance, redundancy, development, security, and backup are factored in, all resources associated with a single terabyte of preserved data were said to cost in excess of \$100,000.”<sup>109</sup> This can lead to absurd results, with one company reporting that “one-third of its IT department’s e-mail resources were now dedicated to preserved information.”<sup>110</sup>

[43] Data migration projects, which include M&A Deals and related transactions, are also recognized opportunities for legal and IT professionals to “eliminate redundant, outdated and trivial data, by up to 60% in some cases, decreasing data management costs and reducing legal and regulatory risks.”<sup>111</sup> In contrast, practitioners who fail to contemplate or address these types of IG issues may leave value on the table, where potential acquisition benefits might otherwise include “technological synergies through additions to the stock of the firm’s knowledge and transfer of that knowledge within the new combination.”<sup>112</sup> This may be

---

<sup>108</sup> LOGAN ET AL., *supra* note 61, at 3.

<sup>109</sup> PACE & ZAKARAS, *supra* note 53, at 88.

<sup>110</sup> *Id.*

<sup>111</sup> LOGAN ET AL., *supra* note 61, at 1.

<sup>112</sup> James et al., *supra* note 21, at 565. *See generally* FUMIO KODAMA, EMERGING PATTERNS OF INNOVATION: SOURCES OF JAPAN’S TECHNOLOGICAL EDGE (1991) (using the concept of a techno-paradigm shift to express the radical changes in the way technology has been and continues to be developed, applied, and commercialized over

particularly significant if the transaction hinges on an incorporation of technology fusion or “innovations [that] require the bringing together of different knowledge bases rooted in different technological traditions.”<sup>113</sup>

### III. WHY CURRENT DUE DILIGENCE PRACTICES SHOULD INCORPORATE DP, IS, E-DISCOVERY, AND IG ANALYSIS

#### A. Silos May Obscure Logical Efficiencies

[44] Deals are “dominated by financial and business managers”<sup>114</sup> who simply cannot perform their functions while also developing expertise in a number of other discrete areas. This specialization has developed silos of expertise focused on specific areas,<sup>115</sup> leading to the type of analysis where outside systems analysts look at hardware/software compatibility while the legal and audit functions focus on organizational documentation, contingent liabilities, and existing/potential internal and external hazards.<sup>116</sup> Those silos also exist within both the Target and the Acquirer, where even the related functions of IG and IS traditionally operate in separate silos, impeding practitioners’ abilities to reduce information risk; cut the cost associated with information management; and realize the

---

time. In analyzing data gathered over ten years of intensive research and study of Japanese firms, Fumio distinguishes six dimensions along which the shift is occurring: manufacturing, business diversification, R&D competition, product development, innovation pattern, and societal diffusion of technology).

<sup>113</sup> James et al., *supra* note 21, at 565.

<sup>114</sup> *Id.* at 566.

<sup>115</sup> See, e.g., James McLetchie, *Next-generation Integration Management Office: A McKinsey Perspective on Organizing Integrations to Create Value*, in PROSPECTIVES ON MERGER INTEGRATION 31, 31 (2010), available at [http://www.mckinsey.com/client\\_service/organization/latest\\_thinking/mm\\_compendium-new](http://www.mckinsey.com/client_service/organization/latest_thinking/mm_compendium-new), archived at <http://perma.cc/7P5J-2NR3>.

<sup>116</sup> See, e.g., Harvey & Lusch, *supra* note 32, at 11 (exhibiting the due diligence auditing process).

inherent value of information assets.<sup>117</sup>

[45] The very operation of a perfect silos-within-silos environment makes cross-function cooperation practically impossible, and even the exchange of information becomes difficult. Silos prevent the creation of a singular picture of the environment, and logical links between and among departments remain unconsidered. Prior to the advent of recent data growth trends, this was inefficient.<sup>118</sup> Now, with the continued evolution of legal practices, technological advances, a changing regulatory environment, and cross-border DP and IS issues, it exponentially decreases value while increasing risk. These intertwined issues may also impact the success of the Deal, dependent as it is on integration issues and related personnel concerns on both the Acquirer and Target sides that are central to consequent performance.<sup>119</sup>

### **B. IT and Related Integration May Impact Merger Success**

[46] Dealmakers contemplate that “[i]f an inefficient firm merges with one that is more efficient and adopts the behavior of the lower-cost firm, we would expect to see post-merger costs lower than pre-merger costs, irrespective of economies of scale.”<sup>120</sup> But success in these areas requires “the definition of the new corporate information systems (IS), infrastructure requirements, the high cost of integration and development of information technology (IT) systems and a reluctance to define both IS and IT in the ex-ante stage.”<sup>121</sup> A better definition of Technology or IT

---

<sup>117</sup> See TED FRIEDMAN & TOM SCHOLTZ, ALIGN INFORMATION SECURITY GOVERNANCE WITH YOUR BROADER INFORMATION GOVERNANCE INITIATIVES 1 (2013), available at <https://www.gartner.com/doc/2576217/align-information-security-governance-broader>, archived at <https://perma.cc/KR28-B7MS>.

<sup>118</sup> See, e.g., Robins, *supra* note 15, at 321–23.

<sup>119</sup> See e.g., McKiernan & Merali, *supra* note 39, at 55.

<sup>120</sup> Engberg et al., *supra* note 24, at 576.

<sup>121</sup> McKiernan & Merali, *supra* note 39, at 55.

therefore incorporates “a spectrum which at one end consists of the established products and manufacturing processes of the firm and at the other end the ability of the firm to develop new knowledge.”<sup>122</sup> And when dealing with a spectrum-type issue, there is no magic to the concept that asking the right type and volume of questions leads to a better result.<sup>123</sup>

[47] Technological interactions with the practices of an organization are complex concerns that require more than quantitative information—they require qualitative information as well.<sup>124</sup> That is, a deluge of information without structure or context is not as useful for real cost determinations.<sup>125</sup> And when that structure or context is not addressed during the deal or immediately after, it simply goes away. Knowledge-generating routines and other *ad hoc* practices are not only likely to be fragile. Linkages with external (and indeed internal) sources of technological knowledge may also be informal and often specific to individuals.<sup>126</sup> There, the link between context and value is lost; without advance planning, the link between context and increased risk may also compound problems in the areas of regulatory compliance and legal holds “in that target’s transaction counsel tends to disappear once the deal is consummated.”<sup>127</sup>

[48] It is questionable whether these issues are addressed at a rate the costs and risk associated with them demand. As presented in a recent study, the hardware and software aspects of the systems of the management information system (“MIS”) function were the “least studied of all corporate functions in premerger/acquisition due diligence. In

---

<sup>122</sup> James et al., *supra* note 21, at 564.

<sup>123</sup> *See, e.g., id.*

<sup>124</sup> *See, e.g.,* HARTLEY, *supra* note 23, at 209.

<sup>125</sup> *See, e.g.,* JUDAH ET AL., *supra* note 51, at 3.

<sup>126</sup> *See, e.g.,* James et al., *supra* note 21, at 567.

<sup>127</sup> BROWNSTONE & GREGORIAN, *supra* note 90, at 5.

addition, MIS issues were the lowest priority when merging activities during the post-merger.”<sup>128</sup> Despite this lack of responsibility and interaction during the due diligence stage, IT professionals are often expected to “manage the post-acquisition combination of the technological assets of acquirer and the acquired business having had little input into the research and planning of the acquisition and the design of the post-acquisition management strategy.”<sup>129</sup>

[49] Some of these activities are immediately realized, as a number of estimates provide that some

70% of merged companies combine IS operations immediately after the merger transaction takes place, whilst up to 90% eventually combine IS operations into a single data centre, usually within a year. IS/IT is likely to have a reactive role, in that it must be integrated to consolidate other operations.<sup>130</sup>

Finally, for each of these activities, ad hoc IS merging activities are even more haphazard, as acquisition-related activities—at least for most internal (and many external) parties—are by their nature non-routine processes that each require a tailored, expert approach.<sup>131</sup>

### **C. Traditional Practice is Challenged by Complex Technological Interrelations**

[50] Present-and-future organizations built on innovation and new

---

<sup>128</sup> Harvey & Lusch, *supra* note 32, at 15; *see also* Norbert Kubilus, *The Systems Manager's Role in Mergers and Acquisitions*, FINANCIAL AND ACCOUNTING SYSTEMS 15 (1990).

<sup>129</sup> James et al., *supra* note 21, at 566.

<sup>130</sup> McKiernan & Merali, *supra* note 39, at 55.

<sup>131</sup> *See, e.g.*, Schrock & Culp, *supra* note 16, at 7.



technologies present challenges where intangible knowledge assets are extremely difficult to evaluate.<sup>132</sup> Articles discussing the acquisition of technologies also acknowledge that those types of acquisitions involve far more than simply transferring ownership of physical assets and codified technical information. Successful acquisitions also depend on the context of the Target's unique capabilities, values, and styles, and the tacit nature of capabilities and the routines that underpin them. Consideration of these factors often leads to difficulties under "the pressures of acquisition decision making to come up with quantifiable answers."<sup>133</sup>

[51] Instead of one-off or infrequent concerns, these are issues in every Deal, where every transaction of substance (those requiring due diligence) will also incorporate:

- The transfer of assets from one party to another or the creation of obligations;
- The existence of risks that may affect the future value of such assets or obligations; and
- The need to apportion the risks between the parties<sup>134</sup>

#### **D. Traditional Practice is Challenged by Complex Legal Issues and Technological Interrelations**

[52] Here, too, the legal framework surrounding and infusing the traditional due diligence Deal has evolved in complexity such that no individual has sufficient expertise to address all the issues.<sup>135</sup> Traditional practice involves, for example, "legal teams . . . of more than a dozen attorneys, each bringing specialized expertise in a given aspect of the law such as M&As, corporate, tax, employee benefits, real estate, antitrust,

---

<sup>132</sup> See, e.g., James et al., *supra* note 21, at 566.

<sup>133</sup> *Id.*

<sup>134</sup> See SPEDDING, *supra* note 27, at 322.

<sup>135</sup> See DEPAMPHILIS, *supra* note 30, at 4.

securities, environmental, and intellectual property.”<sup>136</sup> There are already provisions for litigation experts, and this role is beginning to expand to incorporate the information-related issues to help better position a Target for acquisition.<sup>137</sup>

[53] Even though these deals present a complex environment on both the technology and legal sides, legal professionals are currently left with specific issue spotting, rather than a strategic consideration of the whole. These traditional issues include:

- Basic organizational matters;
- Ownership of securities;
- Banks and borrowing;
- Financial history;
- Litigation;
- General regulatory data;
- Real property;
- Personal property;
- Intellectual property rights;
- Contractual management issues;
- Labor contracts and history; and
- Insurance<sup>138</sup>

Further, a “vast majority of the audit is verification of the existence of material elements of the business” and, in addition, where practitioners are asked to provide opinions (legal and otherwise) “to the acquiring company and its leaders on liabilities or contingent liabilities.”<sup>139</sup>

---

<sup>136</sup> *Id.*

<sup>137</sup> *See id.*

<sup>138</sup> *See* Harvey & Lusch, *supra* note 32, at 12.

<sup>139</sup> *Id.*

[54] Despite findings that Legal is also considered a core component of integration projects common to organizations,<sup>140</sup> this is a problem with two uncommunicative sides: business people may not know what value attorney assistance may provide on these topics, and attorneys may be unaware of decisions that are made in this process until it is too late. This is true even in the United States, where, despite its history of leading the way in due diligence developments, due diligence is not yet a recognized focus in the educational community; is not treated as a separate discipline in law schools; and within the business education community, “only covered within the accounting world, typically integrated as an audit topic.”<sup>141</sup> But for those in the know, the specialists who understand these issues are valued and add value, as “boutique advisors spend more time, probably on due diligence and negotiation, to complete deals . . . [leading to] findings [which] suggest that boutique advisors are chosen in more complex deals and they achieve more favorable deal outcomes.”<sup>142</sup>

[55] This lack of consideration does not consider true costs prior to the deal, leading to a variety of results planted on different points along the Deal diligence spectrum, where some Deals completely ignore or shortchange; others pay lip service or incorporate some findings; and others consider them separately and conjointly. In the first instance, where neither the Target nor the Acquirer takes any action, not only are issues missed, but the risk actually *increases* over time and post-Deal.

[56] Information, while sometimes seen as an insurmountable challenge, is also ephemeral; both the data<sup>143</sup> and the context surrounding

---

<sup>140</sup> See, e.g., Sophie Maire & Pierre Colletterte, *International Post-merger Integration: Lessons from an Integration Project in the Private Banking Sector*, 29 INT’L J. OF PROJECT MGMT. 279, 284 (2011).

<sup>141</sup> SPEDDING, *supra* note 27, at 5.

<sup>142</sup> Weihong Song et al., *The Value of “Boutique” Financial Advisors in Mergers and Acquisitions*, 20 J. OF CORP. FIN. 94, 94 (2013).

it degrade. The second situation is admittedly better, where some action is taken by the Target, the Acquirer, or both. This decreases or shifts the risk; however, decisions made in one area inevitably affect other areas of the overall deal structure, and attempting to contain the risk “associated with a complex deal is analogous to catching a water balloon. Squeezing one end of the balloon simply forces the contents to shift elsewhere.”<sup>144</sup> Here, efforts are likely more of a stop-gap rather than total improvement, but some improvement is vastly better than none at all.

[57] In the third instance, full action is only taken *after* the fact by the Acquirer; that is, rather than developing these ideas during the due diligence practice, the Acquirer assumes it will happen in-house after the deal is done. First, and contrary to some public belief,<sup>145</sup> information storage is expensive,<sup>146</sup> with significant attendant time and budgetary commitments.<sup>147</sup> If the Acquirer considers the Target asset-by-asset and does not include the existing IT budget as part of its analysis, these costs may not be factored into the Deal price.

[58] Of course, once the Acquirer decides that it must deal with the acquired information (we argue properly part of the Deal), the effort to properly manage that information costs time and money, which cannot be recouped at that point post-transaction. This lack of consideration also loses the benefits potentially gained in these activities, where prior

---

<sup>143</sup> See e.g., *Bit Rot*, THE ECONOMIST (Apr. 28, 2012), <http://www.economist.com/node/21553445>, archived at <http://perma.cc/JGR8-DH2Z>.

<sup>144</sup> DEPAMPHILIS, *supra* note 30, at 19.

<sup>145</sup> See generally Michael Endler, *7 Cheap Cloud Storage Options*, NETWORK COMPUTING (Nov. 14, 2012, 2:11 PM), <http://www.networkcomputing.com/cloud-infrastructure/7-cheap-cloud-storage-options/d/d-id/1107389?>, archived at <http://perma.cc/JZV5-87UE> (providing a brief description of seven cloud storage options and the costs associated with each option).

<sup>146</sup> See, e.g., PACE & ZAKARAS, *supra* note 53, at 88.

<sup>147</sup> See *id.*

knowledge and experience contributes to a fuller prospective picture and better results<sup>148</sup> and can lead to direct cost savings<sup>149</sup> rather than additional realized costs post-Deal close.

[59] There are further costs associated with redundancy in the process; avoiding that issue requires addressing overlapping and redundant efforts by bringing IG projects in the areas of privacy and data security together during integration.<sup>150</sup> A lack of consideration also results in the loss of protections that are available through the courts, where the practices would otherwise need to demonstrate that the participants took actions in good faith, living up to the standard that “a presumption that in making a business decision the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company.”<sup>151</sup> The issue in turn recognizes the issue associated with attorneys leaving with valuable knowledge, where of course extensive post-merger integration (if attempted) will often be a difficult and time-consuming task.

[60] Attorney involvement is expected to incorporate that action into a negotiated Target price, where “this investment in resource and time [would] be used to counter inflated premiums for the target firm.”<sup>152</sup> The attorney and expert involvement provides shareholder value return, and may provide further assistance in assessing how viable the Deal results will actually be. “In-house lawyers are often key players in determining

---

<sup>148</sup> See PHILLIPS, *supra* note 8, at 10–12.

<sup>149</sup> See LOGAN ET AL., *supra* note 61, at 1, 3, 8 (“Cisco used risk and compliance drivers to clean up legacy data and save \$11 million in storage costs . . .”).

<sup>150</sup> See *id.*

<sup>151</sup> Aronson v. Lewis, 473 A.2d 805, 812 (Del. 1984) (citing Kaplan v. Centex Corp., 284 A.2d 119, 124 (Del. Ch. 1971)); see also Robinson v. Pittsburgh Oil Ref. Corp., 126 A. 46, 48 (Del. Ch. 1924).

<sup>152</sup> SPEDDING, *supra* note 27, at 33.

the strategy and implementation of acquisitions and so it is important that they can provide guidance to their colleagues on the importance of effective integration.”<sup>153</sup> Further, some work is being done on these issues in the bankruptcy context.<sup>154</sup> But there has not been a presented framework outlining these four issues (plus information concerning the Deal itself) in a cohesive practice.

#### IV. A PROPOSAL TO IMPROVE M&A DUE DILIGENCE IN APPROPRIATE CIRCUMSTANCES

[61] The proper combination of these concerns will enable due diligence practitioners to realize the exact type of scale economies<sup>155</sup> that normal M&A practice attempts to provide by the very deal itself. It is no secret that an appropriate consideration of Target records and other forms of information add major insights to M&A decisions.<sup>156</sup> This framework will incorporate related analyses of interrelated advances in technology in practice that ultimately may affect the bottom line of the Acquirer.

[62] The concept is straightforward: a modified due diligence practice

---

<sup>153</sup> *Id.*

<sup>154</sup> This is also a real issue within the bankruptcy context. See PHILLIPS, *supra* note 8, at 7 (“Bankruptcies can present another difficulty from many records retention perspectives. As bankruptcies have recently proliferated during difficult economic conditions for businesses, it is not uncommon for a surviving business to have few assets and little available funding to properly maintain records. It is common for those last stalwart employees before the completion of a business closure or bankruptcy to simply shred many records or destroy them. Records on accounting issues, employees, or vital business assets may be retained in some manner for the continuation of the enterprise. There is often a flurry of desperate activity that is poorly organized and managed, including directing off-site records storage centers to simply destroy their holdings, as the surviving business entity has no funds to pay for their storage and maintenance. Records storage vendors may have to absorb the cost of destroying the records themselves.”).

<sup>155</sup> See, e.g., Engberg et al., *supra* note 24, at 576.

<sup>156</sup> See PHILLIPS, *supra* note 8, at 12.

built from traditional efforts, which have already begun to address IT practices (albeit slowly and imperfectly), licensing procedures, and the costs and activities associated with the management of IT assets and information. The DDT will work with each subject matter expert (“SME”) with a slate of additional questions—both focused and unfocused. These additional questions will, in large part, simply add to questions already asked and meetings already arranged. In even those instances where the correct people are not in the room, or the DDT has not asked for a particular schedule, policy, or explanation, these additional questions and even lack of answers will help to give a clearer picture of post-Deal reality.

[63] It is time to acknowledge and reap the benefits from addressing these issues in the context of the Deal, despite the history, which fails in large part to acknowledge them outside of well-defined areas. Fixing issues *ex post facto* is a dubious solution, where Deals provide a strong internal momentum that sweeps aside “all but the most obvious of post-merger integration considerations.”<sup>157</sup> To best position an Acquirer for proper and beneficial good corporate governance and related practices—and to maximize post-merger value through realistic purchase prices, these aspects should be prioritized before, rather than after, the Deal.<sup>158</sup> Just as lawyers are now encouraged to import the Business Judgment Rule (“BJR”) into preservation,<sup>159</sup> corporate Deal makers may acknowledge what happens on the other side of the fence.

[64] The principles for diligence in a Deal fit into the paradigm of Master Data Management (“MDM”), a technology-enabled business discipline in which business and IT cooperate to provide “uniformity, accuracy, stewardship, semantic consistency and accountability for an enterprise’s official, shared master data assets.”<sup>160</sup> The overall framework

---

<sup>157</sup> SPEDDING, *supra* note 27, at 34.

<sup>158</sup> *See id.*

<sup>159</sup> *See, e.g.,* Withers, *supra* note 3, at 573.

relies first on a commitment to incorporating the three essential elements of the BJR:

- Using an independent or audit-type decision maker without a personal interest in the outcome to assess the accuracy of representations made by IT professionals, RIM personnel, and other interested parties;
- Arming the independent decision maker with the necessary facts to make a reasonable judgment; and
- Making a judgment on the basis of the best interests of the business.<sup>161</sup>

In the context of the Deal, this focus is on the assets and issues the Acquirer will inherit, and what it will take to successfully manage both. With this in mind, each area covered will focus first on the correct Target personnel to query, the appropriate questions to ask, and the manner in which the due diligence practitioner will memorialize the results.

[65] Managing information assets works most successfully when addressing interrelated DP, IS, e-Discovery, and IG issues in concert. Legal concerns are already part of traditional due diligence practices, where practitioners examine and analyze the existing liabilities and ongoing litigation of the Target. An evolution of the practice would also incorporate prospective litigation—information preserved by legal regarding litigation (ongoing and prospective). Examining the information associated with the Target’s liabilities and litigation may lead into a broader examination of the Target’s IG, as well as fomenting inquiries into how the Target manages information on personnel, policy, and technical issues. Questions would also include whether there is information kept on specific servers for a specific purpose, the origin and reasons of which will be lost once the migration is complete. These

---

<sup>160</sup> JUDAH ET AL., *supra* note 51, at 11.

<sup>161</sup> See Withers, *supra* note 3, at 573 (quoting PRINCIPLES OF CORPORATE GOVERNANCE: ANALYSIS & RECOMMENDATIONS § 4.01(c) (1994)).



inquiries round out the data locations, types, and volumes as well as the current status of each.

[66] The inquiries into these issues, and information management generally (both legal and otherwise) may consider near-in-time restrictions associated with data management and data transfer. For IS issues, the diligence may question how the Acquirer will be able to access data with passwords, data stores with limited access rights, data use prescribed by statute, or even data associated with IS documentation and monitoring efforts. These inquiries may also incorporate questions regarding how any data migration will impact the business continuity procedures of the Acquirer.<sup>162</sup>

[67] Finally, the diligence will ascertain and evaluate existing DP concerns (and documentation about the way in which they were dealt with) to determine just how much of the existing infrastructure and practices can intelligibly be drawn into the new organization. In this context, the locations of where information was kept by the Target, why it is kept there, how the function is integrated within the Target, and even the cultural features of the Target's location(s) will impact the results of the diligence—and may affect the ultimate outcome of the deal.<sup>163</sup>

[68] A proposed framework that addresses DP, IS, e-Discovery, and IG

---

<sup>162</sup> See SPEDDING, *supra* note 27, at 182 (“Business continuity management is about more than just surviving a direct terrorist attack on a company’s business premises. Business survival can also be threatened by failures in other critical business areas such as power outages, failures in IT or telecommunications systems, loss of transport networks or supply chain disruption—all of which may result from natural disasters or random ‘acts of God’ rather than terrorism.”).

<sup>163</sup> See HARTLEY, *supra* note 23, at 320 (“Cultural differences should be considered in mergers and acquisitions.—Cultural differences in perceptions, customs, ways of doing things, and prejudices often are not given enough heed. The acquiring firm expects to bulldoze its culture on the acquired firm (despite how this may affect pride and willingness to cooperate). As we saw with the Daimler merger with Chrysler—in reality a merger of unequals—arrogance and resentments surfaced.”).

begins with finding the right people within the Target to query. As an added benefit, the diligence also determines if the correct people are *not* there, a not unusual occurrence, as critical people often leave before an acquisition or asset purchase is finalized. Moreover, some roles go unfilled, and some roles are never even recognized as assignable responsibilities. Once the individuals are identified, instead of paralyzing the process with too much detail, the focus of the inquiry then incorporates simple, strategic questions, such as:

- What is the most critical business information the Target, your group, and you maintain?
- What information is shared across business processes on an enterprise wide basis?
- Where is the documentation underlying our intellectual property?<sup>164</sup>
- What can we let go?<sup>165</sup>

These questions may lead to the construction of a data map—a focus for further determinations as to what steps the Acquirer needs to take and at what times—rather than a more time consuming and expensive wish list. A workable framework might also include the search for and evaluation of other intangible assets, including:

- Intellectual property;
- Trade secrets;
- Contracts and licenses;
- Structured databases;

---

<sup>164</sup> See LOGAN ET AL., *supra* note 61, at 5.

<sup>165</sup> See James et al., *supra* note 21, at 565 (“At the same time, an important function of acquisitions and divestments is to provide a route to dispose of those activities, that, for whatever reason, no longer fit the strategy of the relevant business. In so doing they greatly reduce the danger of sinking expenditures in essentially irrecoverable investments.”).

- Structured personnel groupings and organizational networks;
- Existing organizational culture; and
- The “know-how” of employees and managers.<sup>166</sup>

This framework considers the use of service provider analysis to bid effectively on projects prior to their performance post-merger. The partnership between the due diligence practitioner, often an attorney or attorney-led team, and the service provider which, in effect, bids on the post-Deal work, is key to much of this framework’s potential success. As discussed in greater detail below, the service provider is incentivized to provide a realistic pricing structure to implement the work envisioned in the diligence process, as an ideal service provider partner wants to perform the post-Deal work and might not risk being underbid for that opportunity. In fact, in instances where there is a great deal of post-Deal work, each member of the DDT should examine those issues with which she has the most knowledge, a self-taught insider perspective into the deal where she knows best what the post-Deal work will cost.

[69] Finally, the framework also includes references to the timing of the post-Deal integration, understanding that a less than timely integration lowers the realized value from the transaction.<sup>167</sup> Further, from the perspective of the Acquirer, and according to the problem of compound interest, decisions made at the point of the deal will only be magnified over time,<sup>168</sup> as present-day decisions subject to the incredible growth of

---

<sup>166</sup> See Harvey & Lusch, *supra* note 32, at 7–8; see also Richard Hall, *A Framework Linking Intangible Resources and Capabilities to Sustainable Competitive Advantage*, 14 STRATEGIC MGMT. J. 607, 607 (1993).

<sup>167</sup> See BLATMAN ET AL., *supra* note 20.

<sup>168</sup> See EXTERRO INC., *supra* note 69 (“Digital information is inherently ephemeral, dispersed, easily duplicated and increasingly voluminous. According to analyst firm International Data Corporation (IDC), the digital universe is expected to double every two years between now and 2020. That translates in a growth from 130 exabytes (130 billion gigabytes) to 40,000 exabytes, or 5,200 gigabytes for every man, woman and child by 2020.”).

data will have exponential effects going forward.

## V. THE DP, IS, E-DISCOVERY, AND IG FRAMEWORK

### A. Data Privacy

[70] Many organizations have a Data Protection Officer that handles inquiries related to regulations the Target is subjected to, as well as the implications of new technologies and other unique queries.<sup>169</sup> An appraisal of this operation will be telling, as the level of sophistication may vary dramatically. The DDT should not expect to find exhaustive, documented policies and procedures covering the DP waterfront within the Target; as not all companies have sophisticated DP policies and procedures and some “organizations do a terrible job of using and securing data.”<sup>170</sup> Insight here will be helpful to the DDT in comparing-and-contrasting DP information with what the legal and IG interviews provide, rounding out articulated data sources and stores, and determining what concerns the Target evidenced during its prior operations.

[71] Regardless of the existing structure, and as with Data Security, the Data Privacy analysis is less about identifying specific information stores, and is more focused on what to do *about* those stores. This portion of the analysis starts with some basic questions (such as whether the Target is Safe Harbor Certified) and then moves into the more holistic evaluation of the Target’s practices through the lens of the generally well-established principles of data protection that include the following:

- The initial data collection of protected data (both by the Target and subsequently by the Acquirer) should be limited;

---

<sup>169</sup> See Larissa T. Moss & Sid Adelman, *The Role of Chief Data Officer in the 21st Century*, CUTTER CONSORTIUM, <http://www.cutter.com/content-and-analysis/resource-centers/business-intelligence/sample-our-research/biar1302.html> (last visited Nov. 7, 2014), archived at <http://perma.cc/M62U-LABK>.

<sup>170</sup> *Id.*

- The collected data should be relevant to the reasons for its collection;
- The collected data and the stated reasons for its collection and use should be accurate;
- The data should be processed lawfully and in accordance with the data subject's rights;
- The data protection measures should be adequate and the data kept secure;
- The data should be used for limited purposes;
- The data should not be kept longer than necessary;<sup>171</sup> and
- The data should “not [be] transferred to countries without adequate protection”.<sup>172</sup>

In addition to the lawful reasons indicated above for data privacy concerns, the due diligence process and the incorporation of these issues post-Deal are important for “local historical and cultural norms . . . [which provide] significant social pressures to conform to local forms of rationality,”<sup>173</sup> and may provide some additional benefits to a U.S. based Acquirer when acquiring a foreign Target. That is, an additional benefit of providing some due diligence impact is the importance shown to the people interviewed and eventually impacted (i.e., ‘we the Acquirer value your privacy rights and this transition will be less impactful than it could have been otherwise’).

[72] The protection of data subject to DP concerns includes an analysis of the specific devices and processes that the Target uses to maintain security where the DDT examination might make special care to focus on the security afforded to customer or employee personal information, as

---

<sup>171</sup> See SPEDDING, *supra* note 27, at 310.

<sup>172</sup> *Id.* at 310.

<sup>173</sup> Angwin, *supra* note 28, at 37 (citing Paul J. DiMaggio & Walter W. Powell, *The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields*, 48 AM. SOC. REV. 147, 147–48 (1983)).

well as PII.<sup>174</sup> This will also incorporate other questions into the technical measures the Target may use for its DP practices, including privacy management tools that may help “conduct privacy impact assessments, check processing activities against requirements from privacy regulations, and track incidents that lead to unauthorized disclosures (investigation, remediation and reporting).”<sup>175</sup>

[73] Those tools may also “analyze and document data flows of personal information (nature of data, purpose of processing, data controller), support authoring and distribution of privacy policies (for which they provide templates), and track user awareness (users acknowledging having read the policies).”<sup>176</sup> Of note here is the circular nature of the DDT practice: each of these types of DP technical measures may incorporate data stores the Acquirer may have to integrate or remediate, such as logs of consents, acknowledgements, or data collection purposes.

[74] Additional layers of DP analysis will incorporate the jurisdictions at play in the Deal, and an appreciation for—if not an investigation into—the jurisdictions’ data privacy required practices, some of which are directly incorporated into the regulations themselves.<sup>177</sup> This is especially true in cross-border or multinational Deals, where the DDT might ask the Deal strategists questions about the Deal’s purpose and eventual shape (e.g., whether the market is to be treated as homogeneous, or whether customer requirements differ between countries).<sup>178</sup>

---

<sup>174</sup> See, e.g., Robins, *supra* note 15, at 350–51.

<sup>175</sup> CALDWELL, *supra* note 61, at 17, 19 (Sample vendors include 2B Advice; Brinqa; Co3 Systems; FairWarning; Jordan Lawrence; Nymity; Otris Software).

<sup>176</sup> *Id.* at 17.

<sup>177</sup> See *id.* at 18.

<sup>178</sup> See James et al., *supra* note 21, at 569.

## B. Information Security

[75] As with other categories of analysis, determining the impact information security may have on the Deal and post-Deal integration begins with finding the right personnel to interview and the right materials to review. At least here, the IT component is ingrained enough in common practice that, unlike many instances of IG or DP, it is likely that there will be at least one person, if not an entire department, dedicated to supporting the IT function. Within that group, based in part on the normal operation of the IT systems themselves, there is a natural determination of permissions to particular information sets or resources. These are often documented, and the DDT may compile copies to both determine the costs associated with and to actually assist with the actual activities surrounding post-Deal migration and harmonization activity.

[76] The questions to ask the IS representative(s) will focus on the Target's memorialization of security levels and associated "accountability and decisions rights," any decisions the Target has made when deciding "between conflicting security requirements and risk affinities;" and the manner in which IS has been keeping the Target's executives and stakeholders apprised of Target's information risk management practices.<sup>179</sup>

[77] Some of the issues the DDT will uncover when involving IT are novel in the due diligence space, where, as indicated above, although most Acquirers acknowledge the role of IT in post-Deal business strategy, few consider IS/IT integration requirements.<sup>180</sup> These issues, however, will be similar to the issues raised during the DP investigation; for example: questions focused on how the organization developed existing policies; how they operate on the information; and where critical information (e.g.,

---

<sup>179</sup> TOM SCHOLTZ, SURVEY ANALYSIS: INFORMATION SECURITY GOVERNANCE, 2013–14, 6 (GARTNER 2013), available at <https://www.gartner.com/doc/2606721/survey-analysis-information-security-governance>, archived at <https://perma.cc/5P5H-EMYN>.

<sup>180</sup> See, e.g., McKiernan & Merali, *supra* note 39, at 58.

passwords, security functions, and other access mechanisms) resides.

[78] An additional step exists within the IS space, where access rights and documentation thereof may not even focus on a defined location or set of captured information. Modern IS practices also incorporate “access management and auditing of web-based applications that are equivalent to traditional on premise application management policies” that seek to gain “the productivity benefits of the cloud.”<sup>181</sup> A common refrain within DDT IS interviews is often, “what else do you manage?,” as IS professionals are also commonly tasked with supporting compliance efforts “by detecting and preventing insider misuse of applications—whether inadvertent, such as sharing log-in details with colleagues, or intentional, such as copying or forwarding sensitive financial details or customer lists.”<sup>182</sup>

[79] The DDT IS inquiry focuses on three temporal components:

1. The past, documented processes within IS that, even if retired, may shine light on “dark” or “dusty” data sources uncovered as virtual unknowns within the IG due diligence component—and will, of course, indicate further information regarding the Target’s maturity model score.
2. Present-day practices, key to what the Acquirer is purchasing, give even more validity to the maturity model score.
3. The IS inquiry will also focus on the core components of future integration projects for IT and systems—that is, the transfer of data to the Acquirer and its harmonization with new standards, as well as a continuation of the appropriate security protocols and protections, which may include distribution lists and access to files and systems.<sup>183</sup>

---

<sup>181</sup> Walters, *supra* note 68, at 10.

<sup>182</sup> *Id.*

<sup>183</sup> See, e.g., Maire & Colletette, *supra* note 140, at 285–86.



DDT inquiries can incorporate additional levels of detail and involve checklists listing various types of integrated technological systems. These include transaction controls monitoring (“TCM”) technology, which integrates governance, risk, and compliance issues and monitors enterprise resource planning (“ERP”) and financial application transaction controls which improve financial governance and automate audit processes. TCM software may also help identify exceptions to policies, business rules, and built-in application controls.<sup>184</sup>

[80] The DDT will also inquire into auto-delete type functions, as nearly all organizations enable automatic software processes that delete sent or received e-mail after a certain set time.<sup>185</sup> The DDT will use this opportunity to confirm that the IS understanding is operationally the same as IG and legal (and that incorrect understandings of these automatic operations will not derail strategic decisions made regarding legal hold and IG). Further, the DDT will inquire into the IS perspective on legal holds, where IS may be aware of orphan data stores or tasks which were delegated to IS or IT without effective Target sign-off, as in many cases, Target’s legal department will have instituted a legal hold, but never rescinded it, even if the matter is no longer ongoing.<sup>186</sup> Data Maps are often key components of IS practice associated with these efforts which may implicate, among other issues, legal holds.<sup>187</sup>

[81] IS professionals interviewed by the DDT might be encouraged to give their own perspectives on what the costs associated with an *ex ante* evaluation of what the acquired organization’s IS/IT infrastructure would

---

<sup>184</sup> See, e.g., CALDWELL, *supra* note 61, at 12.

<sup>185</sup> See Alexander B. Hastings, Note, *A Solution to the Spoliation Chaos: Rule 37(e)’s Unfulfilled Potential to Bring Uniformity to Electronic Spoliation Disputes*, 79 GEO. WASH. L. REV. 860, 873–74 (2011).

<sup>186</sup> See, e.g., LOGAN ET. AL., *supra* note 61, at 4.

<sup>187</sup> See KARIN S. JENSON & JONATHAN A. FORMAN, MAKING MOUNTAINS INTO MOLE HILLS 1–3 (Advanced e-Discovery Institute Nov. 2013).

be.<sup>188</sup> As with IG professionals knowing where the “bodies are buried,” the IS interview may raise issues where expedient work-arounds were employed that will have to be dealt with by the Acquirer, with or without the assistance of the former Target employees. These are critical concerns, which despite being “often cited as major reason[s] why IS/IT systems contribute to ex-poste problems,” have been long underserved, as “it would appear that the ex-ante due-diligence process rarely includes a thorough evaluation of the IS/IT infrastructure” which may be further complicated by the difficulty associated with evaluating IS and most companies’ obliviousness regarding “the total value of their investment in IS/IT, including the value of software and data.”<sup>189</sup>

### C. E-Discovery

[82] The DDT inquiries begin with the recognition that legal hold best practices recommend creating “Information Management Team[s],” which include experts in computer forensics, law, information management, IT, and auditing.<sup>190</sup> Regardless of whether the Target has a well-defined team, the DDT might address each of these issues in turn, asking such questions as:

- Are legal holds implemented with forensic collection?
- Who traditionally directed the implementation of legal holds and answered any questions?
- Where is the legal hold data stored?
- Who is responsible?

[83] A good place to start is with litigators, as a vast majority (82%) of legal holds are overseen by in-house legal teams.<sup>191</sup> But 82% does not

---

<sup>188</sup> See, e.g., McKiernan & Merali, *supra* note 39, at 58.

<sup>189</sup> *Id.*

<sup>190</sup> See Luoma, *supra* note 88, at 93.

equal 100%, and e-Discovery efforts are sometimes a part-time duty assigned to a variety of employees.<sup>192</sup> Here, too, best practices and court requirements may require guidance, supervision, and audits where the Target has held the “hands of their employees and other custodians—both internally and externally—in navigating the complexity of e-Discovery and making sure everybody knows what they need to know.”<sup>193</sup> DDT questions regarding the Target’s Legal Hold policy will lead to issued instances of the policy, as well as the people subject to the policy.

[84] There may be technological solutions in play, but the “majority of litigation holds are still managed and tracked manually.”<sup>194</sup> In fact, more than half of litigation holds are tracked by manual or written processes; only one third use an automated software tool (including commercial e-Discovery tools or custom software); and five percent still rely on verbal legal holds.<sup>195</sup> Legal holds may be broader than responding to an existing or threatened lawsuit, as the DDT must also inquire as to information retained for regulatory compliance purposes,<sup>196</sup> as such requirements may travel with the Deal and become the responsibility of the Acquirer.<sup>197</sup>

---

<sup>191</sup> See BRAD HARRIS, LEGAL HOLD AND DATA PRESERVATION: BENCHMARK SURVEY 2013 10 (Zapproved Inc. Sept. 2013), *available at* <http://www3.legalholdpro.com/LegalHoldBenchmarkSurvey.html>, *archived at* <http://perma.cc/K78N-Z83Q>.

<sup>192</sup> See Ritter, *supra* note 65.

<sup>193</sup> *Id.*

<sup>194</sup> HARRIS, *supra* note 191, at 2.

<sup>195</sup> See *id.*

<sup>196</sup> See BROWNSTONE & GREGORIAN, *supra* note 90, at II.

<sup>197</sup> See Order Instituting Administrative and Cease-and-Desist Proceedings at 2, UBS Sec. LLC, Exchange Act Release No. 52022 (July 13, 2005) (Admin. Proc. File No. 3-11980), *available at* <https://www.sec.gov/litigation/admin/34-52022.pdf>, *archived at* <https://perma.cc/2WLR-UE69>.

[85] The DDT may also acknowledge and recognize the overlapping nature of legal holds, which is not a one-custodian-to-one hold issue. Instead, the retention of legal hold material involves a complex interplay that will take some effort to untangle, where Targets routinely involved in multiple legal actions may face rolling litigation holds, “in which collections of documents and ESI are preserved for litigation, overlapping with subsequent litigation and with litigation to come. Since the scope of the duty of preservation includes ‘reasonably anticipated’ litigation as well as filed actions, caches of data may be under one or more litigation holds interminably.”<sup>198</sup>

[86] A beginning point for this complex interplay of legal holds is to develop a basic data map, where the Target explains the company’s litigation profile (e.g., why it sues and gets sued) and then provides an existing—or assists the DDT with building out—a high-level data map broadly focused on the sources that house the documents and data that relate to those types of disputes.<sup>199</sup> The DDT cannot rely entirely on existing component pieces from the Target to compile even a high-level data map, as at least one study indicates that approximately a third of organizations do not track legal holds at all while “another third relied on rudimentary spreadsheets.”<sup>200</sup> A DDT effort in this area therefore might seek relevant information, but may end up basing the entirety of its analysis on personal interviews and extrapolations from existing sources.

#### **D. Information Governance**

[87] IG issues are already listed on some recent due diligence questionnaires, which incorporate advice to “learn the location of all documents” and satisfy the Acquirer that the Target “has retained adequate records” which satisfy federal, state, and the internal policies of the

---

<sup>198</sup> Withers, *supra* note 3, at 544 (citations omitted).

<sup>199</sup> See JENSON & FORMAN, *supra* note 187, at 1–2.

<sup>200</sup> EXTERRO INC., *supra* note 69 (citation omitted).

Target.<sup>201</sup> DDT inquiries into IG which incorporate that standard as well as other considerations might start by identifying any defined, existing IG group within the Target. However, much of the knowledge regarding the nuts-and-bolts of the Target's practice and experience likely resides with the Target's Corporate Records Manager ("CRM"). Securing the CRM's participation is ideal; if that role is defined within the Target, the CRM likely knows more about the "known unknowns" and may be a first-person resource for the M&A Team work generally as well, as part of the organizational change.<sup>202</sup> Another avenue of inquiry, if there is no central policy or point of responsibility, is into existing information governance projects, where at least half of most global organizations will have between two and seven disjointed but simultaneous IG projects.<sup>203</sup>

[88] The DDT may also inquire into Legal Holds from the perspective of the IG professionals, where best practices for those individuals have long held that IG and other IT professionals contemplating archiving efforts or other big-ticket IG projects "should work with legal and compliance professionals to create rules for retaining only the data that is necessary, usually no more than three years' worth, or that which has had a 'litigation hold' placed on it."<sup>204</sup> The IG practitioners may be even more painfully aware of cases where legal never rescinded an expired litigation hold.<sup>205</sup> Finally, any Data Maps uncovered during the DDT's examination of IG practices might also be tied back to the legal hold analysis.<sup>206</sup>

---

<sup>201</sup> Wendy B.E. Davis, *The Importance of Due Diligence Investigations: Failed Mergers and Acquisitions of the United States' Companies*, 2 ANKARA BAR REV. 5, 14 (2009), available at <http://www.ankarabarreview.org/pdf/03.pdf>, archived at <https://perma.cc/2WLR-UE69>.

<sup>202</sup> See PHILLIPS, *supra* note 8, at 9.

<sup>203</sup> See LOGAN ET AL., *supra* note 61, at 2.

<sup>204</sup> LOGAN ET AL., *supra* note 61, at 4.

<sup>205</sup> See *id.*

<sup>206</sup> See JENSON & FORMAN, *supra* note 187.

[89] As with legal hold practices, there simply may not be one individual responsible; these efforts may have been split into ad hoc practices within divisions, or even ignored or postponed entirely. Many organizations face uncertainty as to who should be responsible for even basic IG efforts such as records retention and deletion policies, including who develops the policy, who monitors the policy, and who has authority.<sup>207</sup>

[90] If there is no well-defined group or individual(s) assigned with IG responsibilities, the DDT may look to the IT department, as most organizations assign sole responsibility for electronic records retention policies to their IT departments despite “little or no training on the legal requirements of electronic document retention and deletion.”<sup>208</sup> If a meeting with the IT department is similarly unsuccessful, the DDT may focus on legal and human resource departments to determine if there are ad hoc delegations there. If these too are unsuccessful, then the DDT may begin to capture data sources through IT and the construction of a data map, and start to analyze those data sets as separate “known unknown” data sources that the Acquirer will have to remediate and harmonize.

[91] The DDT analysis may begin with a simple IG matrix that divides IG efforts into five categories across the information lifecycle. This lifecycle is typically dictated by:

- “A business requirements for keeping the record because of its value;”
- “A legal reason for keeping the record, such as investigation or a discovery request;”
- “A regulatory reason, often dictated by an industry

---

<sup>207</sup> See, e.g., Luoma, *supra* note 88, at 92.

<sup>208</sup> *Id.*

standards;”<sup>209</sup>

- Information of inherent value, such as leases, insurance policies, deeds, or the like; and
- Information about the Deal itself, which includes both the memorialization of important Deal aspects as well as any information that supports the logic of the deal and will relate to potential claims in any lawsuits filed regarding the Deal.

Within the broad framework of the five categories of information retention, a more refined analysis may address four additional, important responsibilities that the Acquirer will address post-Deal include:

1. Harmonizing existing Target decisions with post-Deal compliance with Acquirer requirements, laws, and regulations;
2. Implementing those retention decisions and the categorization of the information;
3. Educating and training the Acquirer’s employees regarding the new information; and
4. Enforcing and auditing these types of policy decisions

The DDT will want to consider whether the Acquirer may achieve some of these goals by incorporating decision rights and accountability and policies aligned to business objectives that are monitored and measured according to compliance and assurance metrics within tolerances.<sup>210</sup> The key here will be a plan that incorporates the backing and support of top management in each of these areas. Without that support, compliance is difficult even if pivotal to avoiding court scrutiny.

---

<sup>209</sup> Tera E. Brostoff, *Corralling Data to Manage e-Discovery, Change Corporate Culture and Prepare for the Technological Future*, 13 DIGITAL DISCOVERY & E-EVIDENCE REPORT 638, 639, 641 (2013) (“The Masters Conference speakers divided up categories of data into five unique groups: information with business value, information with operational value, information with regulatory value, information with litigation considerations, and lastly, remaining data that is eligible for destruction.”).

<sup>210</sup> See LOGAN ET AL., *supra* note 61, at 7.

[92] A prospective plan for effective information transition, harmonization, and future use may include the identification of an Acquirer Information Management Director who reports in some direct manner to upper level management; likely, the Chief Information Officer of the organization.<sup>211</sup> Best practices indicate the Information Management Director would actually occupy a separate and distinct position from the IS or IT Director so that she can focus entirely on the “complicated and critical area of document management.”<sup>212</sup>

[93] Ideal DDT practices will even go as far as inquiring into the existing IG practices and associated, defined retention requirements of the Acquirer. Answers provide a better sense of how extensive the transition process will be. The inquiry also includes the identification of Target information that will not necessarily be monetizable but important for governance purposes.

[94] Other integration issues associated with diverse business efforts are implicated but not directed by IG, such as confirming that “the basic hardware and software relied upon by each organization is reasonably current, and how difficult it will be to make the organizations’ computers to talk to each other.”<sup>213</sup> And, “if the integration of the two companies involves sharing data between companies’ systems—for example with sales or inventory data going into a financial accounting system,” the DDT will work with due diligence IT hardware consultants to determine whether the systems would allow for migration, “or whether an ‘interface’ program is required.”<sup>214</sup>

[95] Finding an existing structure or memorializing the logical

---

<sup>211</sup> See, e.g., Luoma, *supra* note 88, at 93.

<sup>212</sup> See *id.*

<sup>213</sup> See Robins, *supra* note 15, at 354.

<sup>214</sup> *Id.*, at 355.



underpinnings of an ad hoc structure are sometimes insufficient. The DDT may also be tasked with confirming the *purpose* for the Target's IG structure. This is more than simply performing a basic maturity model analysis. While existing IG practices and RIM policies may indicate how sophisticated the Target is as a whole, their intent has mattered to courts, where IG policies enacted in good faith are usually protected, but policies enacted for the wrong purpose(s) are suspect in nature.<sup>215</sup>

[96] The DDT may, of course, confirm the *effect* of the IG structure. There is sometimes a gulf between policy and practice, and that gulf widens the more the Target's efforts depend on human action and less on technological implementation. Here, an examination into how auto-delete (or other mechanical remediation efforts) operates is crucial. While courts have found "nothing necessarily improper about a company's reasonable pre-litigation document retention policy whereby documents are disposed of in periodic intervals,"<sup>216</sup> fact finders have begun to delve into parties' information governance issues or lack thereof;<sup>217</sup> and "[g]enerally speaking, spoliation arguments are unsuccessful if relevant documents were destroyed in accordance with the business'[s] reasonable document retention policy and/or practices. However, even a reasonable practice of destroying documents may have unintended consequences."<sup>218</sup>

[97] This inquiry into effect may determine, despite a formal or

---

<sup>215</sup> See *Micron Tech., Inc. v. Rambus Inc.*, 645 F.3d 1311, 1326 (Fed. Cir. 2011).

<sup>216</sup> *Peter Kiewit Sons', Inc., v. Wall St. Equity Grp., Inc.*, No. 8:10CV365, 2011 U.S. Dist. LEXIS 123810, at \*15 (D. Neb. Oct. 25, 2011).

<sup>217</sup> See, e.g., *Zest IP Holdings, LLC v. Implant Direct Mfg., LLC*, No.10-0541-GPC(WVG), 2013 U.S. Dist. LEXIS 169014 at \*17-21 (S.D. Cal. Nov. 25, 2013); see also *Brigham Young Univ. v. Pfizer, Inc.*, 282 F.R.D. 566, 570 (D. Utah 2012); *Porcal v. Ciuffo*, No. 10-cv-40016-TSH, 2011 U.S. Dist. LEXIS 109537 at \*4-8 (D. Mass. Sept. 23, 2011); *Phillip M. Adams & Assocs., LLC v. Dell, Inc.*, 621 F. Supp. 2d 1173, 1181-82, 1192-94 (D. Utah 2009).

<sup>218</sup> *Peter Kiewit Sons', Inc.*, 2011 U.S. Dist. LEXIS 123810 at \*15-16 (internal citation omitted).

informal structure, how the IG efforts actually function. Here, studies indicate that the DDT may expect to find that most Targets of reasonable maturity will

[H]ave well-developed retention and disposition schedules for their paper records and electronic data, . . . [but] approximately 25% are not routinely destroying outdated records and ESI, and 50% have an approval process that adds a layer of decision making on top of the disposition schedule, rendering it largely ineffective because decision makers are averse to disposing of records and ESI, even when no longer needed for business purposes, subject to legal retention requirements, or subject to a formal litigation hold.<sup>219</sup>

[98] The DDT must then determine, if the policies are not applied or followed, where the information is stored. In the near past, information with no business purpose, legal hold requirement, or regulatory purpose was “found on employee desktops, shared drives, offline storage, and legacy system media.”<sup>220</sup> This has expanded further into the myriad of locations available to employees, which include company-sponsored or endorsed efforts (such as BYOD practices) or non-sanctioned, employee-driven instances of shadow IT. The DDT may find and quantify what it can, with the reasonable assumption that at least the operation of this diligence is identifying the “known unknowns” and perhaps cutting down

---

<sup>219</sup> Withers, *supra* note 3, at 544–45 (citing CAROL STAINBROOK ET AL., COHASSET ASSOCS INC., ELECTRONICALLY STORED INFORMATION (ESI)—LEGAL HOLDS & DISPOSITION 12 (2012), at 1, 12, available at <http://www.cohasset.com/retrievePDF.php?id=15>, archived at <http://perma.cc/M54Q-EF4D>).

<sup>220</sup> Withers, *supra* note 3, at 578 (citing Kenneth J. Withers, *Electronically Stored Information: The December 2006 Amendments to the Federal Rules of Civil Procedure*, 4 NW. J. TECH. & INTELL. PROP. 171, 174 (2006)) (discussing how replicated ESI causes a “tremendous volume” of information on a computer system).

on the “unknown unknowns.”

[99] That unknown data represents a departure from normal records and information management RIM practices—if data is being properly managed, it is “known.” There are statutory obligations to proper RIM function for specific types of corporate records,<sup>221</sup> and there are common law obligations as well. While document retention policies have been condoned in *Zubulake V*<sup>222</sup> and by the U.S. Supreme Court in *Arthur Andersen*,<sup>223</sup> courts have considered—and have been adjudicating—the general operation of organizations’ RIM policies at least as early as 1984, when the Southern District of Florida found that an organization “failed to demonstrate that its document retention policy [was] actually implemented in any consistent manner . . . [and that its] absolute failure to provide any evidence on this issue must be construed as a tacit admission that the policy is a sham.”<sup>224</sup> And the court in *In re Prudential* involved sanctions levied, in part, for Prudential’s lack of a “comprehensive document retention policy with informative guidelines . . . .”<sup>225</sup> Finally, the DDT’s perspective is not to save everything at the point of integration with the Target; the DDT has the Deal firmly in mind as an opportunity to engage

---

<sup>221</sup> See, e.g., 45 C.F.R. 164.530(c) (2013) (detailed in *Frequently Asked Questions About the Disposal of Protected Health Information*, U.S. DEP’T OF HEALTH & HUMAN SERVS., <http://www.hhs.gov/ocr/privacy/hipaa/enforcement/examples/disposalfaqs.pdf>, archived at <http://perma.cc/VD82-GYU9>.)

<sup>222</sup> See *Zubulake v. UBS Warburg LLC (Zubulake V)*, 229 F.R.D. 422, 431–32 (S.D.N.Y. 2004) (finding that routine document retention/destruction policies must be suspended upon “reasonably anticipate[d] litigation,” not as a matter of course).

<sup>223</sup> See *Arthur Andersen LLP v. United States*, 544 U.S. 696, 704 (2005) (stating in dicta that “document retention policies” are common in business, and employees may “comply with a valid document retention policy under ordinary circumstances”).

<sup>224</sup> *Carlucci v. Piper Aircraft Corp.*, 102 F.R.D. 472, 485 (S.D. Fla. 1984).

<sup>225</sup> *In re Prudential Ins. Co. of Am. Sales Practices Litig.*, 169 F.R.D. 598, 617 (D.N.J. 1997).

in record remediation and deletion efforts as well.<sup>226</sup>

### E. Due Diligence and Record Keeping for the Deal Itself

[100] Suggested use of the DDT might include two components of capturing the DDT diligence. First, the DDT will clearly manage and maintain the due diligence work it performs. Second, the DDT may also be among the chief custodians of the Deal information generally; that is, the “documents, data, and evidentiary records created during the Due Diligence process” that “comprise one of the most important sets of information that an organization possesses.”<sup>227</sup> In addition to the DDT’s investigative efforts, maturity model analysis, and post-Deal integration modeling, the DDT may also seek to maintain available Deal documents, such as:

- Merger or acquisition agreements;
- Financial documents;
- Strategic plans;
- Technology plans;
- Inventories of organizational assets;
- Copyrights or patents that literally “seal the Deal;”<sup>228</sup> and
- “[C]opies of relevant contracts and related Deal negotiating history”.<sup>229</sup>

The DDT—or other responsible party—must understand that inadequate Deal documentation or its misplacement can create high dollar losses for

---

<sup>226</sup> See LOGAN ET AL., *supra* note 61, at 1 (“Use data migration and system retirement as an opportunity to undertake an information governance program, especially ‘defensible deletion’ or legacy information clean up.”).

<sup>227</sup> PHILLIPS, *supra* note 8, at 14.

<sup>228</sup> *Id.*

<sup>229</sup> BROWNSTONE & GREGORIAN, *supra* note 90.

Acquirers where, due to contested Deals, “the need to create serious RIM support for Due Diligence processes is self-evident.”<sup>230</sup> A properly employed DDT may be uniquely placed to assist with this record-keeping function, as advanced planning for recording information associated with the Deal is traditionally underserved due to the Deal’s immediacy and the fact that “storage, retrieval, retention, and preservation issues [are] often not realized until after a record is created.”<sup>231</sup>

[101] This is yet another component whose time has come, because despite the traditional ad hoc nature of deal record keeping that common to most organizations, the absence here has “particularly grave consequences when the value of some [Deal] documents may be very high (possibly worth millions of dollars) and the risk of loss increases drastically as the complexity of M&A workflow rises.”<sup>232</sup>

[102] Managing information and following good record keeping practices (as well as asking the right questions during the Deal) is not just a risk mitigation strategy—executives may use Deal activities as an opportunity “to build decisional consensus and document the rationale for the M&A by initiating excellence in Due Diligence recordkeeping.”<sup>233</sup> Here too, the absence of a systematic practice has “contribut[ed] to well-known M&A disasters.”<sup>234</sup>

---

<sup>230</sup> PHILLIPS, *supra* note 8, at 7.

<sup>231</sup> *Id.* at 11.

<sup>232</sup> *Id.*

<sup>233</sup> *Id.*, at 1.

<sup>234</sup> *Id.*; see also Mary DiMaggio, *The Top 10 Best (and Worst) Corporate Mergers of All Time . . . Or, the Good, the Bad, and the Ugly*, RASMUSSEN COLL. SCH. OF BUS. BLOG (Sept. 15, 2009), <http://www.rasmussen.edu/degrees/business/blog/best-and-worst-corporate-mergers/>, archived at <http://perma.cc/XFD9-58GZ> (e.g., AOL’s 1999 acquisition of Time Warner; Mercedes-Benz’s 1998 Chrysler deal; the 2005 Sears-Kmart debacle; and the 27 month Quaker Snapple experiment that cost Quaker \$1.6 million for each day Quaker owned Snapple).

[103] With increases in the sophistication of shareholder derivative suits, Acquirers need to “retain evidentiary records longer and be more capable of controlling records that are collaboratively shared” during the Deal.<sup>235</sup> This control may include a so-called “stop the presses” provision that provides a post-Deal workflow where IT or IG confirms with the Acquirer’s attorneys, and/or HR, and/or the IG before overwriting data.<sup>236</sup> This provision would be incorporated into a Deal-oriented “Records Retention Policy (and in a separate Litigation-Hold Protocol, if any); and a Separation Policy/Checklist.”<sup>237</sup>

#### **F. Synergies, Cross-Pollination, and the Conclusion of the Process**

[104] As described in passing above, the framework provides synergies across each separate section of DDT’s due diligence questioning. Just as this type of due diligence is necessary for the Acquirer because so many organizations operate in silos, DDT inquiries must keep firmly in mind the desired outcome: successful integration of the Target into the Acquirer, the realistic means by which this may occur, and the realistic costs associated with those efforts. That consolidation of services provides a team focus “on risk management for process issues and on data conversion for technology issues.”<sup>238</sup>

[105] This implicates a combination approach focused on systems integration, rather than a transformation approach with an emphasis on innovation.<sup>239</sup> This combination approach may also incorporate some

---

<sup>235</sup> PHILLIPS, *supra* note 8, at 8.

<sup>236</sup> BROWNSTONE & GREGORIAN, *supra* note 90.

<sup>237</sup> *Id.*

<sup>238</sup> BLATMAN ET AL., *supra* note 20.

<sup>239</sup> *See id.*

parts of a traditional preservation approach, where “stakeholder management is the focal point of process issues, while communication between business units is key for technology concerns.”<sup>240</sup> With that in mind, even though the DDT focus is on a point-by-point analysis and presentation on discrete identifiable issues (and, where appropriate, specific dollar amounts associated with addressing those issues), the DDT will also consider issues as part of a strategic package that will give a better overall chance for post-Deal success.

[106] In sum, the diligence may provide the memorialization of the interviews with key Target SMEs; construct a data map or maps of existing data information held according to existing IG practices as well as exceptions relating to Legal Holds; and note how the identified information is impacted by DP and IS considerations and restrictions. When performed with the assistance of an appropriate service provider, as detailed further in the next section, the DDT may also assign dollar amounts to discrete actions the Acquirer will undertake as part of the Deal’s harmonization or remediation efforts.

## **VI. Due Diligence Pricing Framework**

### **A. Professional Services**

[107] The pricing framework we suggest for the practitioner and service provider model is divided into two components. First, the DDT will consider the strategic risk assessment component, which is comprised of the policies and procedures governing the movement of the data from the Target to the Acquirer. Second, the DDT and service provider will catalog the Target’s data volume, and utilize calculations to create or bid on subsequent Acquirer integration or disposal efforts.

[108] To address DP concerns within the first step, the DDT would determine whether the Acquirer desires to transmit any existing PII from the Target. If that is the case, the DDT might outline a framework for

---

<sup>240</sup> *Id.*

Acquirer policy considerations; determine safe harbor implications; look at the specific mechanisms by which that data would be modified, stored, and utilized; and consider whether notifications to the individuals from whom the PII was collected would be required.

[109] For IS concerns, the DDT will, among other things, evaluate the costs of evaluating existing IS practices and determine any necessary changes (e.g., if any permissions or password protections need to be modified). On the e-Discovery side, the DDT will determine the current and potential legal hold structure, existing legal hold data, and also outline a process by which chain-of-custody information would travel with any data transfers. In many instances, the DDT would arrange for a subsequent attorney review to determine which legal holds had expired, and work toward remediating related data stores. Finally, the DDT would evaluate the existing IG structures (e.g., policies and record retention schedules) and determine what an effective harmonization plan would require.

### **B. Traditional IT Practices**

[110] To implement many of the strategic points above and assist with the second step of the pricing framework, service provider professionals will assist DDT practitioners in the broad areas of collection, processing, de-duplicating, formatting, categorizing, and integrating data into the Acquirer's data environment. At its most basic of level, the DDT will identify discrete data stores and determine a strategic approach to dealing with those stores; the service provider will review the strategy, quantify the data amounts, and price out the discrete services listed above.

### **C. Emerging Technologies**

[111] In addition to collecting the data in the Acquirer's preferred method or merely categorizing it in-place, service providers may utilize the same type of data management tools utilized in traditional IG practices, which include:



- “De-duplication tools to eliminate duplicate documents;
- Dynamic archiving tools to move older data to cheaper storage [or eliminating it entirely];
- Organizational tools to classify and search;
- Retirement tools to capture application data at sun-setting.”<sup>241</sup>

Newer strategies also incorporate file analysis (“FA”) tools which “analyze, index, search, track and report on file metadata and, in some cases, file content.”<sup>242</sup> These types of tools give additional data on electronic information, “not only by reporting on simple file attributes, but also by providing detailed metadata and contextual information to enable better information governance and storage management actions.”<sup>243</sup>

[112] Service providers may also be key for strategic IG harmonization efforts relating to structured or database data, where a portion of the integration efforts focuses on moving “legacy enterprise information archiving systems to [the Acquirer or a] next generation, on-premises, or SaaS [(Software as a Service)] products or services.”<sup>244</sup> The service provider may even work with the Acquirer to determine whether many of the Target’s information assets would be better served by off-site storage or in an archiving tool, “for storage management, e-Discovery, compliance, indexing, search and business or market analysis.”<sup>245</sup>

[113] Some service providers have sought to differentiate their services from traditional means of data analysis, and have touted a number of

---

<sup>241</sup> PALOMINO & VANCIL, *supra* note 60, at 9.

<sup>242</sup> CALDWELL, *supra* note 61, at 11.

<sup>243</sup> *Id.* at 6.

<sup>244</sup> LOGAN ET AL., *supra* note 61, at 3.

<sup>245</sup> *Id.* at 3.

technologies that may be incorporated into this space. These include some “machine learning”<sup>246</sup> or “predictive coding”<sup>247</sup> analytical processes that are coming of age within the M&A due diligence process; for example, the use of “concept search tools—already somewhat widely deployed in the litigation context—to speed and focus the diligence process, appears to be an impending development.”<sup>248</sup>

[114] There are some cautions surrounding the use of these tools, as most experience with these tools has come through their use in e-Discovery, where “a machine filters documents into one of two categories: responsive or not. But in the world of IG, there are many, many more categories to which records are assigned.”<sup>249</sup> That is, when:

Searching legal documents, one is typically looking for short passages of important operative language that will affect: the disclosure against a representation in a deal document; the need for third-party consents; termination requirements; or other matters affecting the value of the target or of the relevant assets. Although the passage may have huge practical impact for the transaction, most times it will: (1) only occur once; and (2) use of language very similar to the content of many other legal documents of the same nature.<sup>250</sup>

[115] This is the brave new frontier for IG, but current thinking holds that the “[t]ask of sifting through this data is especially suited for the use of predictive coding because these pools of information are so incredibly

---

<sup>246</sup> CALDWELL, *supra* note 61, at 30.

<sup>247</sup> *Id.* at 34.

<sup>248</sup> BROWNSTONE & GREGORIAN, *supra* note 90.

<sup>249</sup> Brostoff, *supra* note 209, at 642.

<sup>250</sup> BROWNSTONE & GREGORIAN, *supra* note 90.

large.”<sup>251</sup> The premise is that predictive coding and similar technologies allow IG practitioners to train the system to parse all of this data and categorize it—remediating the unneeded information, and migrating the remainder to the Acquirer.<sup>252</sup> In fact, once a service provider has worked with the Acquirer’s existing IG policies and schedules, the service provider may find potential efficiencies within the Acquirer’s current (i.e., pre-Target data) environment; even when organizations “have developed good information governance policies, ever increasing data sets may make it difficult for the company to apply data policies,” and where a service provider has done the legwork to codify the Acquirer’s policies and integrated them with a tool with an information governance function, “predictive coding can be used as a strategic information governance tool” and where predictive coding can apply a policy to an organization’s data sets in a large scale fashion, against e-mail, “archived data, active files, and even unstructured data.”<sup>253</sup>

#### **D. Informed, Incentivized Participants May Lead to More Accurate Pricing**

[116] After involvement with the DDT and the review of the collected policies, related information, and the DDT data maps, an informed service provider is positioned best to give hard numbers to those discrete, quantifiable tasks the DDT process will raise. As envisioned and implemented, the DDT would integrate a service provider team into the interview and assessment process; the service provider would, in effect, bid on the post-Deal tasks, and these bids would be presented as a portion of the potential post-Deal cost to the Acquirer. This creates incentives

---

<sup>251</sup> Brostoff, *supra* note 209, at 642.

<sup>252</sup> See Brostoff, *supra* note 209, at 642.

<sup>253</sup> Rebecca N. Shwayri, *Use Predictive Coding As an Information Governance Tool*, LAW TECH. NEWS (Dec. 27, 2013, 5:25 PM), <http://www.lawtechnologynews.com/id=1202634962120?slreturn=20140111100025>, archived at <http://perma.cc/MJ24-NLQB>.

regarding two points for the service provider, which introduce efficiencies to the deal.

[117] Under these circumstances, the DDT and service provider team are committed to bringing back dollar figures to the Deal negotiation, such that the Target and Acquirer can use those figures, among others, to negotiate the proper price and structure of the Deal. That, in effect, finalizes the work performed by the team; however, both the DDT and service provider likely want the relationship with the Acquirer to continue, and will bid the services for the post-Deal work appropriately, such that they are not underbid for the post-Deal work once the Deal is completed.

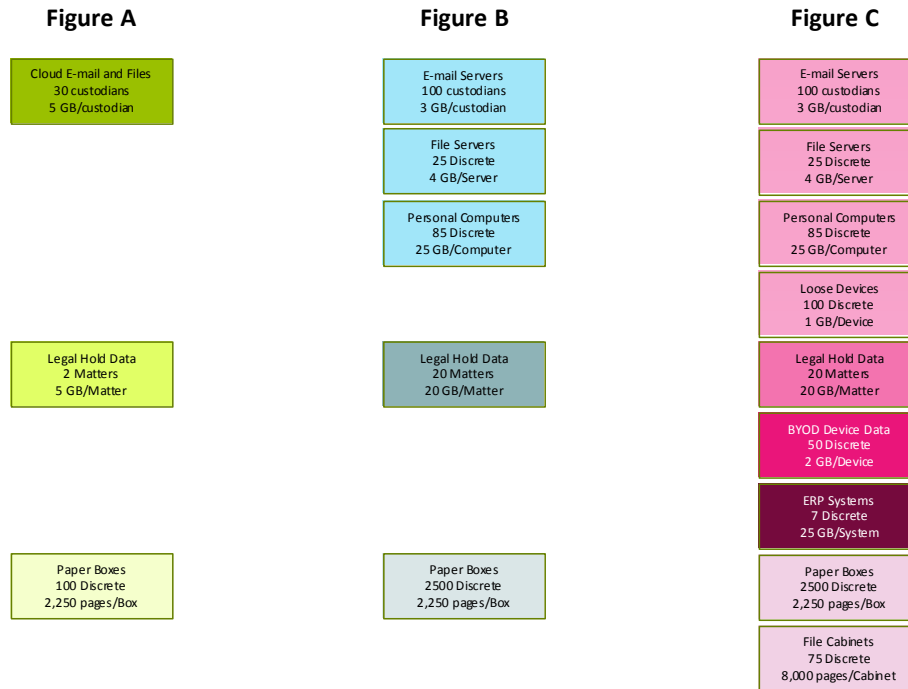
[118] This format provides the first incentive, even more powerful since the service provider is in the best position to determine exactly what those costs might be, and will bid accordingly in an effort to secure the work. Second, as indicated briefly above, once the service provider has done work with the Acquirer and learned the Acquirer's policies, schedules, and systems, service providers understand that existing client relationships are traditionally easier paths to additional opportunities.<sup>254</sup>

### **E. Fact Patterns and Service Provider Participation**

[119] To demonstrate how service providers might evaluate quantifiable post-Deal integration and remediation tasks, we compiled three distinct fact patterns of varying levels of complexity that would correspond generally to the type of data map or maps returned by the operation of the DDT. Each included different types of information, storage media (including paper documents), volumes, and character (e.g., identical data types retained for very different purposes).

---

<sup>254</sup> See, e.g., Michelle Class, *Why You Should Cultivate Your Existing Clients*, MARKETING WITH CLASS (March 7, 2013), <http://www.marketingwithclass.com/2013/03/why-you-should-cultivate-your-existing-clients>, archived at <http://perma.cc/UG5H-Q5PQ> (“A 10% increase in customer retention is equal to a 30% increase in company value . . . [and y]ou are 4 times more likely to do business with an existing customer versus a new customer.”).



**F. Exemplar Calculations—Public Information**

[120] There was quite a bit of latitude among online sources of vendor information, with costs ranging up to \$30,000 per gigabyte of calibrated data,<sup>255</sup> which included “culling, organizing, and reviewing” the data.<sup>256</sup> To derive a more simplistic formula to illustrate the framework, we began

<sup>255</sup> See David Degnan, *Accounting for the Costs of Electronic Discovery*, 12 MINN. J.L. SCI. & TECH. 151, 151 (2011).

<sup>256</sup> *Id.* at 160. These actual costs are for the most part distinguishable from “recoverable” costs associated with parties seeking bills of costs pursuant to 28 U.S.C. § 1920 and Fed. R. Civ. P. 54(d)(1), which are only “a fraction of the nontaxable expenses borne by litigations.” *Taniguchi v. Kan Pac. Saipan, Ltd.*, 132 S.Ct. 1997, 2006 (2012); see also *Life Plans, Inc. v. Sec. Life of Denver Ins. Co.*, No. 11 C 8449, 2014 U.S. Dist. LEXIS 86195, at \*18 (N.D. Ill. June 25, 2014).

with the basics. For old-fashioned paper stored in banker's boxes, research indicated that there were between 2,000 and 2,500 pages per box.<sup>257</sup> We used the mean for our calculation of 2,250 pages per banker's box figure to estimate the costs of scanning the information into ESI form. Here, we used the industry standard \$.05 per page<sup>258</sup> for scanning and Optical Character Recognition ("OCR"):

**One banker's box x 2,250 x \$.05 = \$112.5 per banker's box scanning and OCR cost**

Next, we determined how many GB of ESI each banker's box represented after the scanning and OCR steps, reverse engineering research indicating that Microsoft® Word® files averaged 64,783 pages per GB.<sup>259</sup> With 2,250 pages per banker's box, this provided the following GB equation:

**2,250/64,783 = .03473 GB per banker's box**

Costs associated with the next step of the process—processing—are falling, from \$350 to \$1,200<sup>260</sup> per GB in late 2012 to recent estimates ranging from \$150 to \$300.<sup>261</sup> We assumed a \$250 per GB price for

---

<sup>257</sup> See *Paper Calculator*, NY DOCUMENT MANAGEMENT LLC, <http://www.paper-scanning-services.com/how-much-paper-do-i-have.html>, archived at <http://perma.cc/U5VV-BG85>.

<sup>258</sup> See *Document Scanning Provides a Fast ROI*, INDIGITAL, INC., <http://www.indigitalinc.com/about-us/roi-model/> (last visited Jan. 28, 2015), archived at <http://perma.cc/JG9C-Y9KY>.

<sup>259</sup> See *Discovery Services Fact Sheet: How Many Pages in a Gigabyte?*, LEXISNEXIS, [http://www.lexisnexis.com/applieddiscovery/lawlibrary/whitepapers/adi\\_fs\\_pagesinagabyte.pdf](http://www.lexisnexis.com/applieddiscovery/lawlibrary/whitepapers/adi_fs_pagesinagabyte.pdf), archived at <http://perma.cc/SD7G-W6KR>.

<sup>260</sup> See George Carry, *Technology: Preparing and Managing a Budget for e-Discovery*, INSIDE COUNSEL (Aug. 3, 2012), <http://www.insidecounsel.com/2012/08/03/technology-preparing-and-managing-a-budget-for-e-d>, archived at <http://perma.cc/Z32N-WZYB>.

<sup>261</sup> See Brian McHughs, *e-Discovery for EVERYONE!*, INDEXED I/O (Feb. 3, 2014), <http://www.indexed.io/ediscovery-everyone/>, archived at <http://perma.cc/Z32N-WZYB>;

processing, and used that price across most sources of ESI for our estimated costs. For example, one banker's box of paper data scanned, OCR'ed, and processed would cost the following:

$$(2,250p \times \$0.05) + (0.03473 \times \$250.00)$$

**or**

$$(\$112.50) + (\$8.68) = \$121.18$$

With native, collected ESI (in contrast to the ESI created from paper), Acquirers may gain efficiencies associated with processing less ESI per GB collected by deNISTing and deduplicating collected files via indexes and other pre-processing steps.<sup>262</sup> But for purposes of our rough-hewn calculations, we will assume that these steps occur across data post-processing.

[121] We next assumed that our deNISTing and deduplicating processes would eliminate 80% of the ESI kept generally within an organization, and perhaps 65% of the higher-quality ESI dataset represented by the information kept due to existing legal holds. We assumed that the paper documents converted to ESI would not have the same range of elimination, based both on the limitations associated with the OCR process, as well as the thought that organizations would be less likely to keep duplicate paper files than electronic ones.

[122] Then to evaluate the data kept, we imagined the use of a service provider analysis step applied to each data set to extract information of

---

*see also* Kiwi Camara, *Future of Legal Big Data*, CS DISCO (Feb. 18, 2014), <http://www.csdisco.com/2014/02/18/future-of-legal-big-data/>, *archived at* <http://perma.cc/4ABB-C4LF>.

<sup>262</sup> DeNISTing is a process using a sub-project of the National Institute of Standards and Technology ("NIST") to remove computer application files, as opposed to user-created information. Deduplicating removes file duplicates. *See* Jason Krause, *Why DeNIST is the Thing in e-Discovery*, NEXTPOINT (June 11, 2014), <http://www.nextpoint.com/blog/denist-ediscovery/>, *archived at* <http://perma.cc/JSA2-RMPB>.

value about the information, to determine what data should be kept—and how. Our hypotheticals frame the analytical step as an application of predictive coding or technology assisted review; however, other options, including even simple or complex Boolean searches, may accomplish similar aims.<sup>263</sup> Estimated per-GB costs for analytical tools ranged from \$250–\$700 in 2013;<sup>264</sup> we assumed \$400 as a middle ground, appreciating that costs should continue to fall as technologies become more commoditized.

[123] Running this analytical process against the data would provide the means by which the Acquirer could then properly categorize and store (or defensibly dispose of) information acquired from the Target.

[124] For the different media, our equations are:

$$\begin{aligned} & \mathbf{1 \text{ Banker's Box (1}_{BB})} \\ & (2,250_p \times \$0.05) + (.03473_{GB} \times \$250.00_{pro}) + (.03473_{GB} \times \$400.00_{anl}) \\ & \qquad \qquad \qquad \mathbf{or} \\ & (\$112.50) + (\$8.68) + (\$13.89) = \$135.07 \end{aligned}$$

$$\begin{aligned} & \mathbf{1 \text{ GB of Information Governance or non-Legal Hold unstructured} \\ & \qquad \qquad \qquad \mathbf{data (1}_{GB \text{ IG GB})} \\ & (1_{GB \text{ IG}} \times \$250.00_{pro}) + (1_{GB \text{ IG}} \times .2 \times \$400.00_{anl}) \\ & \qquad \qquad \qquad \mathbf{or} \\ & (\$250.00) + (\$80.00) = \$330.00 \end{aligned}$$

$$\begin{aligned} & \mathbf{1 \text{ GB of Legal Hold unstructured data (1}_{GB \text{ LH})} \\ & (1_{GB \text{ LH}} \times \$250.00_{pro}) + (1_{GB \text{ LH}} \times .35 \times \$400.00_{anl}) \\ & \qquad \qquad \qquad \mathbf{or} \end{aligned}$$

<sup>263</sup> See Jonathan Lewis et al., *Time To Ditch Traditional Methods In Merger Probes*, LAW360 (June 6, 2014, 10:42 AM), <http://www.law360.com/articles/545359/>, archived at <http://perma.cc/5FXU-HEWA>.

<sup>264</sup> See Bill George, *Predictive Coding Primer Part One: Estimating Cost Savings*, TANENHOLTZ & ASSOCIATES, PLLC (Apr. 18, 2013), <http://tanenholzlaw.com/predictive-coding-cost-savings>, archived at <http://perma.cc/B25Y-GLB6>.



$$(\$250.00) + (\$140.00) = \$390.00$$

Applied to the fact patterns presented, we determined the following:

Figure D

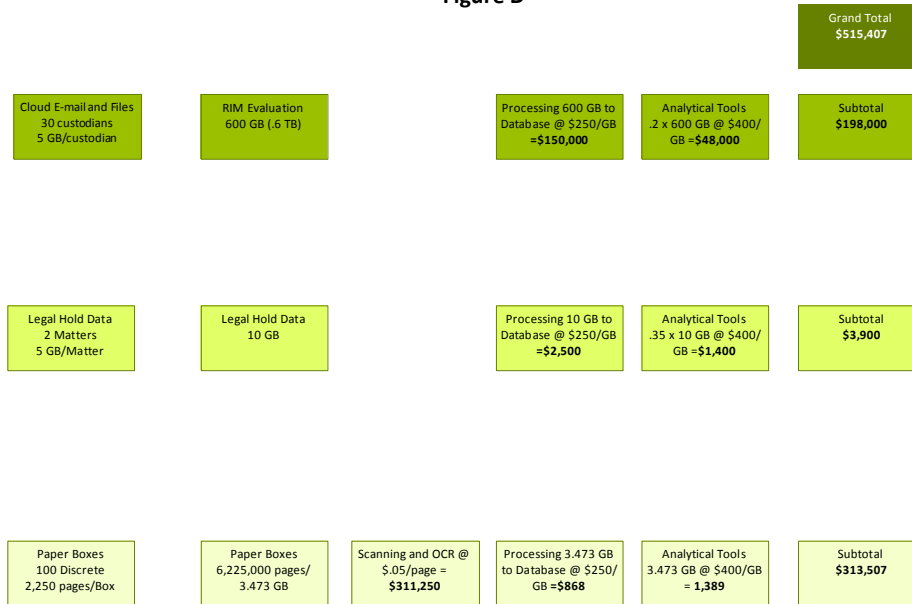
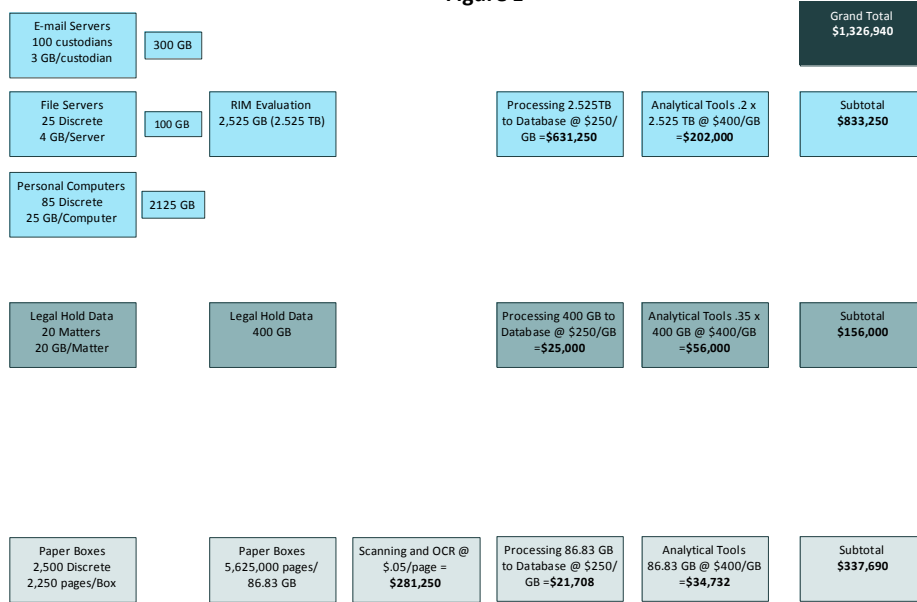
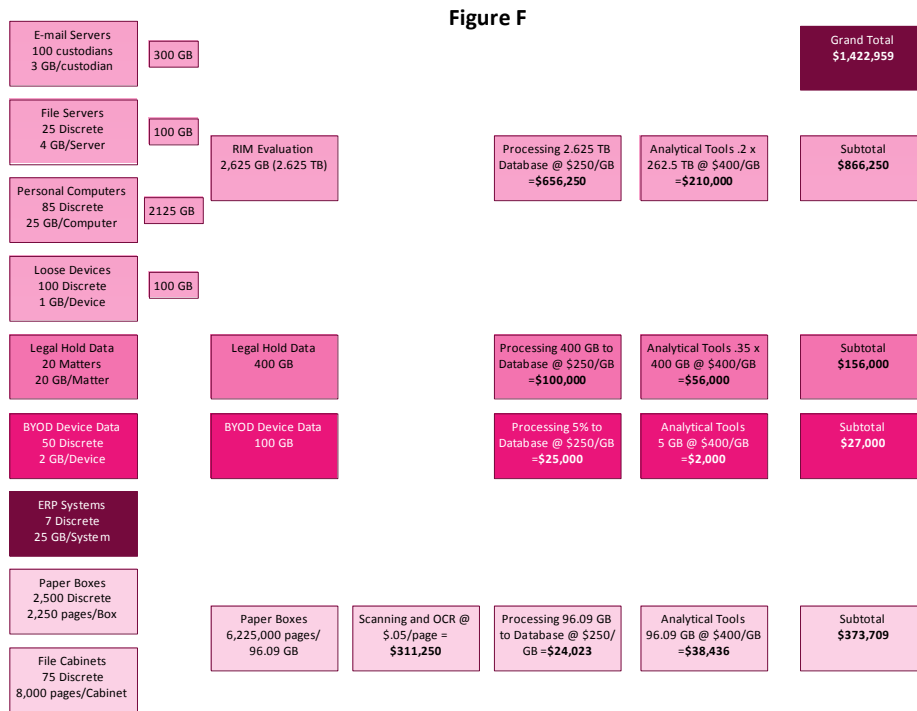


Figure E

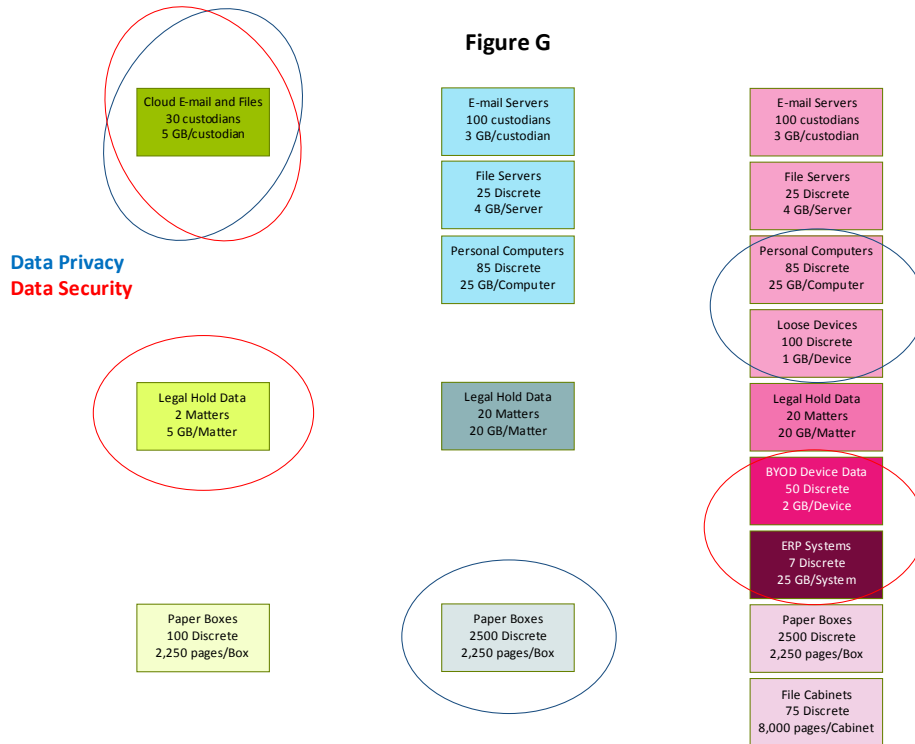




Further, we would then incorporate project management fees varying from \$50–\$275 per hour based on service provider time;<sup>265</sup> attorney time would also factor into this analysis.

<sup>265</sup> See Seth Eichenholtz, *Pricing Processing in e-Discovery: Keep the Invoice from Being a Surprise*, IN-HOUSE LITIGATOR 25:1 (2010), reprinted in Pretrial Practice and Discovery 4, ABA (2011).

[125] Finally, as imagined by this paper’s framework, practitioners would address IS and DP concerns according to the specific needs of the Deal, exemplified simply as:



### G. Service Provider Figure Proposed Research

[126] If we investigate further, we propose soliciting the participation of service providers within the IG and e-Discovery space, providing them with this scholarship as well as the original fact patterns, asking them to consider each fact pattern. We would allow the service providers to determine what portion(s) of each fact pattern they would address, the technology they would use, and even how they would characterize the results of their efforts, along with the pricing they would provide. Information shared during this process would be kept confidential vis-à-

vis each service provider, unless (a) the service provider gave permission to share their methodology and/or pricing; and (b) at least ten service providers wished to share their particulars publicly.

## VII. CONCLUSION

[127] We submit that a framework which considers DP, IS, e-Discovery, and IG issues and their associated costs to the Acquirer during a Deal may provide greater insight into the true overall “cost” of the Deal under the appropriate circumstances. Due to the overlapping interests between each of the specialties, a framework that takes all four into account (as well as information about the Deal itself) may create efficiencies when determining a strategy for post-Deal information transfer, evaluation, integration, and disposal—working to avoid duplicative efforts while focusing on the most important data sets identified through the due diligence process. The associated costs may be further refined through the incentivized structure provided by including the service providers as due diligence team participants, who effectively bid for project work from a position of near-insider information while still operating from a need to secure project work post-Deal.

[128] Finally, in addition to presenting a more accurate Deal cost, the operation of the framework may better define for the Acquirer the risks associated with the Deal: both before the Deal is consummated, by evaluating the point along the maturity model at which the Target exists; and after the Deal, by considering and providing a process for dealing with data privacy, data security, information governance, and e-Discovery requirements and concerns. We do not submit that this type of analysis is effective or even appropriate for every type of deal, but hope that it continues to gain popularity within the M&A space as an addition to every slate of considered due diligence practices.