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BIG DATA, BIG PROBLEM: ARE SMALL LAW FIRMS GIVEN A SPORTING CHANCE TO ACCESS BIG DATA?

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The major North American professional sports leagues are undergoing a statistical revolution. Beginning with Major League Baseball, and the sabermetrics movement, the roots of which stretch back to the nineteenth century,¹ sports teams now regularly make decisions on player development and acquisition based on statistical analysis. In addition to utilizing statistics more regularly, professional sports executives and their staffs continue to develop more and further advanced statistics. Many front offices have hired executives from other industries,² or at least have taken cues from processes developed within other industries.³ Billy Beane, long-time general manager of the Oakland Athletics, is roundly praised for his application of analytics to his decision-making.⁴ Oakland, and other “small market” teams, continue to use advanced statistics to discover undervalued assets and loopholes, which allows them to compete with “big market” teams

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1. See ALAN SCHWARZ, *THE NUMBERS GAME: BASEBALL'S LIFELONG FASCINATION WITH STATISTICS* (2005), for more on the history of statistics in baseball.

2. The rise of Jeff Luhnow, a former management consultant and the current general manager of the Houston Astros, is becoming typical. See Joshua Green, *Extreme Moneyball: The Houston Astros Go All In on Data Analysis*, *BUS. WK.* (Aug. 28, 2014), <http://www.businessweek.com/articles/2014-08-28/extreme-moneyball-houston-astros-jeff-luhnow-lets-data-reign>.

3. See JONAH KERI, *THE EXTRA 2%: HOW WALL STREET STRATEGIES TOOK A MAJOR LEAGUE BASEBALL TEAM FROM WORST TO FIRST* (2011), for an outline of the Tampa Bay Rays' revised approach for building a contender.

4. It seems as if Beane finds a new market inefficiency to exploit each season. See Joe Lemire, *Billy Beane Finds New Moneyball Inefficiency: Oakland GM Has the A's Back in the Playoffs by Maximizing All 25 Roster Spots*, *WALL. ST. J.* (Sept. 30, 2014, 11:54 AM), <http://www.wsj.com/articles/billy-beane-finds-new-moneyball-inefficiency-1412037904>.

holding substantially more financial resources.⁵ The Massachusetts Institute of Technology hosts the annual Sloan Sports Analytics Conference, at which major developments in the field are highlighted, and prime movers are feted.⁶ Where, for more than a century, sports teams had made decisions based almost entirely on the “eye test,” and gut reactions,⁷ a sea change has occurred.

Most solo and small law firms continue to run on *ad hoc* decision-making, fueled by gut reactions and guile.⁸ Solo attorneys and small law firms have not combined to establish, nor do they attend, legal analytics conferences. There have been no books written about how solo attorneys and small law firms use statistical analysis to compete for clients with larger law firms—perhaps because they would be thoroughly uninteresting fiction titles. Solo attorneys and small firm lawyers do not generally look to advances in other industries for inspiration. Solo attorneys and small firm lawyers do not develop or utilize advanced statistics, if they even use rudimentary ones. Solo attorneys and small law firms do not make decisions on targeting and selecting from potential clients based on statistics. There is no analytics revolution in solo and small law; neither does one appear to be broaching the horizon.

This comparison, of course, is meant to beg the question: *Why not?* The answer is complicated; and, we explore the various factors below.

I. SQUARE PEGS, ROUND HOLES: BIG DATA, BIG FIRMS; SMALL DATA, SMALL FIRMS

Finding an agreed-upon definition for “big data,” much like reining in big data itself, has proven to be an elusive task.⁹ The joining of

5. Kevin E. Martens, *Fair or Foul? The Survival of Small-Market Teams in Major League Baseball*, MARQ. SPORTS L. REV. 324 (1994), available at <http://scholarship.law.marquette.edu/cgi/viewcontent.cgi?article=1105&context=sportslaw>.

6. The Conference speakers address the continuing role of analytics in sports. See *About the Conference*, MIT SLOAN, http://www.sloansportsconference.com/?page_id=1851 (last visited Apr. 7, 2015).

7. Though, scouts who apply traditional evaluation metrics are not placeless in the modern game. See Alan Siegel, *Baseball Scouts Use Numbers, Too*, FIVE THIRTY EIGHT SPORTS (Aug. 11, 2014, 9:40 AM), <http://fivethirtyeight.com/features/baseball-scouts-use-numbers-too/>.

8. The general remedy is to be more intentional. See Jared Correia, *With a Paddle: Intentional Law Firm Management*, AVVVO IGNITE (Nov. 6, 2014), <http://ignite.avvo.com/webinars/paddle-intentional-law-firm-management>.

9. A dozen definitions may not even cover it. See Gil Press, *12 Big Data Definitions: What's Yours?*, FORBES (Sept. 3, 2014, 8:01 AM), <http://www.forbes.com/sites/gilpress/2014/09/03/12-big-data-definitions-whats-yours/>.

internet access to commerce has meant that massive retailers (e.g. Amazon) and behemoth service providers (e.g. Google) have been archiving basic personal information about users for more than a decade¹⁰—not to mention the glut of records attached to specific industries (e.g. insurance¹¹ and health care¹²). And, it is only going to get worse, or better—depending on your perspective, whether you are Big Brother,¹³ or little brother.¹⁴ The challenge presented by big data¹⁵ is inherent in its sheer massiveness: How do you design methods to render it *actually* usable?¹⁶ There are various approaches,¹⁷ but no universal solution—nor could there likely be, given variance in data collection methods.¹⁸ If a primary aim is to protect the privacy of individual users,¹⁹ another hurdle appears: How do you render sufficiently large, sufficiently anonymized sets of data, that can be effectively filtered by,

10. Such service providers store so much data that a designated prefix for a number with twenty-seven zeros is still being decided. See Charles Walford, *Information overload: There is so much data stored in the world that we may run out of ways to quantify it* DAILYMAIL.COM (Dec. 13, 2012, 2:39 PM), <http://www.dailymail.co.uk/sciencetech/article-2247081/There-soon-words-data-stored-world.html>.

11. Big data may come to revolutionize the insurance industry. See Bill Kenealy, *Big data use can improve how insurers do business*, BUS. INS. (Jan 17, 2015, 6:00 AM), <http://www.businessinsurance.com/article/99999999/NEWS040105/399999705?tags=%7C59%7C331%7C76>.

12. Big data can change the healthcare industry. See Natalie Burg, *How Big Data Will Help Save Healthcare*, FORBES (Nov. 10, 2014, 10:17 AM), <http://www.forbes.com/sites/castlight/2014/11/10/how-big-data-will-help-save-healthcare/>.

13. Orwell's nightmarescape comes into clearer focus with each passing year. See Charlotte Meredith, *Big Brother is Watching: Sales of George Orwell's '1984' Up 337% After NSA Spying Scandal* (June 11, 2013, 9:58 AM), <http://www.express.co.uk/news/world/406709/Big-Brother-is-watching-Sales-of-George-Orwell-s-1984-up-337-after-NSA-spying-scandal>.

14. There is, of course, a dark side to the big data revolution. See Adam Frank, *A Brave New World: Big Data's Big Dangers*, NPR (June 11, 2013, 2:41 PM), <http://www.npr.org/blogs/13.7/2013/06/10/190516689/a-brave-new-world-big-datas-big-dangers>.

15. Other than composing catchy pop songs about it, that is. See Miles Raymer, *Big Data brings Internet paranoia to the pop charts*, ENT. WKLY. (Aug. 20, 2014, 3:24 PM), <http://music-mix.ew.com/2014/08/20/big-data-dangerous-video-interactive/>.

16. The question of how to effectively leverage big data becomes highly technical in a hurry. See Jianging Fan, Fang Han & Han Liu, *Challenges of Big Data analysis*, NAT'L SCI. REV. 1 (2014), <http://nsr.oxfordjournals.org/content/early/2014/02/06/nsr.nwt032.full.pdf>.

17. Many large companies use a customer-centric approach. See Sean Madden, *How Companies Like Amazon Use Big Data to Make You Love Them*, FAST COMP (May 2, 2012, 8:30 AM), <http://www.fastcodesign.com/1669551/how-companies-like-amazon-use-big-data-to-make-you-love-them>.

18. See Eileen Brown, *Six Clicks: How sites secretly collect your data and how to stop it*, ZDNET (June 18, 2014, 11:00 AM), <http://www.zdnet.com/pictures/six-clicks-how-sites-secretly-collect-your-data-and-how-to-stop-it/>, for six ways six companies do it.

19. As it should be. See *With Big Data Comes Big Responsibility*, HARV. BUS. REV. (Nov. 2014), <https://hbr.org/2014/11/with-big-data-comes-big-responsibility>.

or for, consumers of that data?²⁰

A. *The Universe of Big Data, the Galaxy of Small Law*

The vast majority of solo and small firm attorneys will never even enter the gravitational field of big data. For those lawyers and law offices, it is most often true that the best that they can do, especially given budgetary constraints, is to effectively use *their own* “big” data. Over the course of years, solo lawyers and small law firms collect significant amounts of data relative to their clients and related parties. In most cases, that data is never fully utilized, short of basic contact management functions. Solo attorneys and small firm lawyers do not, generally, consider the potential utility of leveraging their databases in such a way as to yield better targeted information and more pointed strategy respecting the ways in which they attract clients, implement technology solutions and rate employee performance. The world of big data is *external* to the practice of law, and with respect to the largest percentage of lawyers, that is the unattainable warren. In solo practices and small firms, the *internal* data that those firms keep about and relating to their clients is *big enough* data. Maintaining, securing and reporting effectively from that internal, *small data* is a reachable goal for most solo and small firm lawyers, even if the large majority of those attorneys do not take the first step along the path. This contrasts with their big firm counterparts, whose combined earning power grant them much wider access to the fruits that seed from this latest stage of the Information Age.²¹

B. *Big Firms, Big Data*

Big data has become an essential ingredient in the running of large law firms. Big data insights influence firm administration and management decisions, as well as case selection and case management.²² As data sources continue to expand at a staggering rate, reliance on big data will accelerate. In the shorter term, it would seem that effective

20. This question trades on the notion of differential privacy. See Moritz Hardt, *Is Differential Privacy practical?*, MOODYRD (Aug. 21, 2013), <http://mrtz.org/blog/dp-practical/>.

21. See Debra J. Borkovich & Philip D. Noah, *Big Data in the Information Age: Exploring the Intellectual Foundation of Communication Theory*, ACADEMIA.EDU, http://www.academia.edu/4895527/Big_Data_in_the_Information_Age_Exploring_the_Intellectual_Foundation_of_Communication_Theory (last visited Apr. 7, 2015), for more on the role of big data in the Information Age.

22. See Joe Dysart, *The Dawn of Big Data*, ABA J., (May 1, 2013, 10:20 AM), http://www.abajournal.com/magazine/article/the_dawn_of_big_data.

conversion of big data will become a predictor of law firm success. At present, large law firms are already leveraging big data, on a number of fronts.

1. Pricing

With insights from big data, large law firms can make more intelligent decisions about their fee structures. In an industry pressed by growing consumer demand for more efficiency and lower costs, using big data to benchmark prices against competition results in more coherent and attractive pricing structures.²³ Products like Wolters Kluwer's TyMetrix Legal Analytics allow big firms to contribute their own anonymized data sets to access detailed reports (built from the bank of anonymous information submitted by all users) covering such topics as legal spend and matter management in corporate legal departments, competing law firms and other businesses.²⁴ Understanding pricing trends within particular industries, acquiring a broader sense of what your direct competitors are charging, knowing what corporate legal departments expect from outside counsel—these are all chunks of intelligence that can help large law firms to establish effective and agile pricing regimes.²⁵ Of course, the same information that large law firms can acquire is also accessible by outside counsel, who use it to vet big firm pricing proposals; but, this only reaffirms the importance of big data for big firms, who need the baseline information in order to frame their proposals effectively.²⁶

2. Human Resources

Large companies, including large law firms, have begun to use big data to screen potential employees and to attempt to predict job success. By way of example, Evolv (which was recently acquired by Cornerstone OnDemand)²⁷ used big data to determine that employees' longevity (or lack thereof) at prior positions did not predict longevity at future

23. *Id.*

24. *See id.* *See also* TyMetrix Legal Analytics, WOLTERS KLUWER TYMETRIX, <http://www.tymetrix.com/products/legal-analytics/> (last visited Apr. 7, 2015).

25. Dysart, *supra* note 22.

26. *See id.* *See also* Chris Bullock, *Huron Consulting Group Acquires Sky Analytics*, SKYANALYTICS (Jan. 8, 2015, 12:20 PM), <http://blog.skyanalytics.com/huron-consulting-group-acquires-sky-analytics>; *see generally* TyMetrix, *supra* note 24, for examples of analytics products.

27. *See* CORNERSTONE ON DEMAND, <http://www.cornerstoneondemand.com/evolv> (last visited Apr. 7, 2015).

positions.²⁸ Such a study may be useful to a large law firm considering lateral hires. More generally, information of this sort can guide big firms in broader categories, as well as when reviewing resumes and conducting interviews. Big data can also provide insights into common traits of successful law firm employees, thus enabling human resources departments to target those skills or attributes when hiring.

3. Case Analysis

One of the most well-known and pervasive applications of big data in large law firms is its use within tools developed to predict case outcomes, including verdicts.²⁹ As one company boldly assays, “[w]e help lawyers predict the future.”³⁰ More specific predictions are developed via the analysis of massive aggregations of historical case information. Armed with anticipated outcomes with which to compare incoming fact patterns, large law firms can make informed and reasoned decisions when screening cases and developing case strategies. There is no shortage of service providers in this area. Some products provide case predictions for specific practice areas,³¹ including medical malpractice³² and patent law.³³ Other tools analyze the litigation histories of judges and opposing counsel, and provide comparative case outcomes for every stage of litigation.³⁴

C. *Big Firms, Small Data*

For purposes of this article, we have defined small data in

28. See Emma Byrne, *Hiring with Science: Big Data Brings Better Recruits*, FORBES (July 24, 2014, 11:52 AM), <http://www.forbes.com/sites/netapp/2014/07/24/hire-big-data-science/>.

29. See David J. Walton, *How Lawyers and Law Firms Operate in a Big Data World*, INSIDECOUNSEL (Apr. 11, 2014), <http://www.insidecounsel.com/2014/04/11/how-lawyers-and-law-firms-operate-in-a-big-data-wo>.

30. See JURISTAT, <https://juristat.com> (last visited Apr. 7, 2015).

31. See *Verdict and Settlement Analyzer*, LEXISNEXIS, <http://www.lexisnexis.com/en-us/products/verdict-and-settlement-analyzer.page> (last viewed Apr. 7, 2015) (providing comparative litigation analyses reporting).

32. See *MedMal Navigator*, LEXISNEXIS, <http://www.lexisnexis.com/en-us/products/lexisnexis-medmal-navigator.page> (last viewed Apr. 7, 2015) (predicting medical malpractice cases through comparative analyses of similar verdicts and settlements, as well as guidance to assess deviations in the standard of care).

33. See, e.g., JURISTAT, <https://juristat.com> (last visited Apr. 7, 2015) (analyzing USPTO data to predict outcomes of future patent applications); LEX MACHINA, <https://lexmachina.com> (last visited Apr. 7, 2015) (aggregating and analyzing information from databases to assist with patent litigation).

34. See *CourtLink*, LEXISNEXIS, <http://www.lexisnexis.com/en-us/products/courtlink-for-corporate-or-professionals.page> (last viewed Apr. 7, 2015) (offering litigation histories of judges, experts, litigants, and opposing counsel).

opposition to big data, as data internal to the law firm. So, how do large law firms utilize the data *they* collect? Small data factors into many big firm decision-making processes. Whereas big data is used (in one instance) to predict case outcomes through historical analyses of precedent, large firms use small data to forecast success by benchmarking progress(ion), analyzing key performance indicators, and establishing revised goals based on ongoing reporting.³⁵ More specifically, big firms may apply small data to questions surrounding financial management (for instance, to determine which alternative fee arrangements are most attractive to clients, or to review historical budgets and monitor ongoing overhead); office efficiencies (by tracking for and encouraging/facilitating successful behaviors,³⁶ or monitoring the efficiency-saving effects of new technologies); and work quality (including business development best practices, individual attorney timekeeping and billing practices and practice area group/department interactions, including for deriving cross-selling opportunities³⁷).

D. *Small Firms, Small Data*

We have, at the lower frequencies of this article, observed that solo attorneys and small law firms generally do not collect comprehensively or leverage effectively internal data about their practices.³⁸ However, the standard hurdle to solos and small firms utilizing big data: that it is too expensive, does not necessarily apply to those lawyers' and firms' applications of small data. Small data, in fact, can be gleaned from existing small firm systems, which avoids the added cost of accessing

35. See Stephen Mabey & Karen MacKay, *Key Performance Indicators: Understanding How to Keep Your Eye on the Dashboard*, 36 LAW PRACTICE, no. 2, March/April 2010, at 57, available at http://www.americanbar.org/publications/law_practice_home/law_practice_archive/lpm_magazine_articles_v36_is2_pg57.html. Not only can firms benchmark against their own data, but also against other firms—a convergence of big and small data. See *id.* See also ALM LEGAL INTELLIGENCE, <http://www.almlegalintel.com> (last visited Apr. 7, 2015); *Peer Monitor Economic Index*, THOMPSON REUTERS, <https://peermonitor.thomsonreuters.com> (last visited Apr. 7, 2015).

36. One example of a unique use of small data to increase productivity is through the use of wearable sensing technology to analyze workplace behavior. By monitoring behavior, businesses can make changes that foster efficiency in the workplace. See Ben Weber, *The Next Big Thing in Big Data: People Analytics*, *The Management Blog*, BUS. WK. (May 16, 2013), <http://www.businessweek.com/articles/2013-05-16/the-next-big-thing-in-big-data-people-analytics>. See also Rachel Emma Silverman, *Tracking Sensors Invade the Workplace*, WALL ST. J. MGMT. (Mar. 7, 2013, 11:42 AM), <http://www.wsj.com/articles/SB10001424127887324034804578344303429080678> (detailing a Massachusetts pharmaceutical company's efforts to use data to find that in-person interactions boosted productivity, thus redeveloping its cafeteria to encourage in-person interactions).

37. See Mabey & MacKay, *supra* note 35, at 57.

38. See *infra* section Part I.D.2.

external data sourcing and analysis. To effectively collect, analyze, and use small data, however, the solo lawyer or small firm must first determine *what* should be collected, and then figure out *how* to collect it. The data must then be analyzed and applied. The following discussion breaks down the hypothetical steps by which a solo or small law firm might render small data in ways that will positively affect firm management.

1. What and How

Data useful to a solo lawyer or small firm can be broken down across a number of categories, including: clients and contacts, matters, time capture, billing, accounting, and marketing. The simplest way to collect and organize this data is through electronic systems—specifically, cloud-based electronic systems that have upgraded ease of use across the board, including for data entry and access to information.³⁹ The process for collecting relevant data begins with the creation of a client intake form, featuring fields requiring basic client data, including respecting the effectiveness of the firm's marketing (i.e.—asking how the client heard about the firm, including specific, established referral sources).⁴⁰ The information gleaned from the intake form should be input (directly, preferably) into either a law practice management (LPM)⁴¹ or customer relationship management (CRM) system.⁴² Most LPMs integrate matter, contact and financial

39. For a listing of relevant products, see *Cloud Computing, Legal Technology Resource Center*, A.B.A., www.americanbar.org/groups/departments_offices/legal_technology_resources/resources/cloud_computing.html (last viewed Apr. 7, 2015).

40. For a sample client intake form, see *Client Intake Sheet*, NEW HAMPSHIRE BAR ASSOCIATION, <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CCAQFjAA&url=http%3A%2F%2Fwww.nhbar.org%2Fdocs%2Fform3.doc&ei=p0ejVIGoL5OzyATipoCgAw&usg=AFQjCNEsox2SWBWoeaAAAVJSStmrXATvAg&sig2=11zwaEpGY1pIDfW8ER4nQ&bvm=bv.82001339,d.aWw> (last visited Apr. 7, 2015).

41. See Jared Correia, *Law Practice Management Software: A Holistic Remedy*, ATTORNEYATWORK.COM, www.attorneyatwork.com (last viewed Apr. 7, 2015); Jared Correia, *Law Practice Management Software: A Scheduled Tickler*, ATTORNEYATWORK.COM, www.attorneyatwork.com (last viewed Apr. 7, 2015). See, e.g., CLIO, <http://www.goclio.com> (last visited Apr. 7, 2015); ROCKET MATTER, <https://www.rocketmatter.com> (last visited Apr. 7, 2015); MYCASE, <http://www.mycase.com> (last visited Apr. 7, 2015); *Firm Manager*, LEXISNEXIS, <http://firmmanager.com> (last visited Apr. 7, 2015); *Firm Central*, THOMSON REUTERS, <http://legalsolutions.thomsonreuters.com/law-products/solutions/firm-central> (last visited Apr. 7, 2015) (representing a sampling of law practice management programs).

42. See Heidi Alexander, *Using Technology to Manage Your Network*, LAW TECHNOLOGY TODAY (May 7, 2013), <http://www.lawtechnologytoday.org/2013/05/using-crm-to-manage-your-network/>. For a sampling of customer relationship management

management features; more rarely, so do CRMs, which do, most often, instead, integrate with related programs. Beyond LPMs and CRMs, dedicated financial management platforms track expenses, income, time and billing.⁴³ For Internet marketing data, free web analytics tools can be used to automatically capture relevant information, which can then be synced with certain LPMs and CRMs.⁴⁴

2. Analysis and Action

Once relevant data has been collected, and aggregated to the right systems, the challenge becomes one of analysis. How do solo and small firm lawyers render down that raw data to forms that are useful to them? Fortunately, those same LPMs and CRMs that assist in collection of data can also be used to process data in a meaningful way.

A CRM that tracks and reports on interactions with potential clients up to conversion, referrals and referral sources, and marketing spend provides more coherent insight into business development.⁴⁵ Armed with that information, a law firm can assess the effectiveness of its marketing, and make changes to, or drop, failed (or, more likely, failing) campaigns. Significantly, this particular set of small data informs the budgeting process. Why would solo or small firm attorneys, budget-crunched to begin with, invest in marketing that does not provide a worthwhile return? Solo and small firm marketing data analyses can also reveal important trends. Are client conversions clustered around certain practice areas, certain times of the year, or certain persons? In

programs, see SALESFORCE, <http://salesforce.com> (last visited Apr. 7, 2015); AVVO IGNITE, <http://ignite.avvo.com> (last visited Apr. 7, 2015); ZOHOCRIM, <http://www.zoho.com/crm/> (last visited Apr. 7, 2015); ADERANT, <http://www.aderant.com> (last visited Apr. 7, 2015).

43. There are computer applications for financial management that are specifically tailored for the legal industry. See, e.g., TABS 3 FINANCIAL SOFTWARE, http://www.tabs3.com/products/tabs3_financial/financial.html (last visited Apr. 7, 2015); TABS 3 BILLING SOFTWARE, <http://www.tabs3.com/products/tabs3/tabs3.html> (last visited Apr. 7, 2015). There are computer applications for time and billing solutions that are specifically tailored for the legal industry. See, e.g., SAGE TIMESLIPS, <http://na.sage.com/us/sage-timeslips#top> (last visited Apr. 7, 2015); RTG BILLS, <http://www.rtgsoftware.com> (last visited Apr. 7, 2015). Attorneys also use general business accounting tools. See, e.g., INTUIT QUICKBOOKS, <http://quickbooks.intuit.com> (last visited Apr. 7, 2015); XERO, <https://www.xero.com> (last visited Apr. 7, 2015).

44. See Joe Dysart, *These Tracking Tools Help Analyze Your Online Marketing Efforts*, A.B.A. J., http://www.abajournal.com/magazine/article/tracking_tools_these_services_help_analyze_your_online_efforts (last visited Apr. 7, 2015).

45. See AVVO IGNITE, <http://ignite.avvo.com> (last visited Apr. 7, 2015). See also Heidi Alexander, *Ignite Your Law Firm Marketing: Avvo Introduces a New CRM Suite*, MASSACHUSETTS LAW OFFICE MANAGEMENT ASSISTANCE PROGRAM, <http://masslomap.org/ignite-your-law-firm-marketing-avvo-introduces-new-crm-suite/> (last visited Apr. 7, 2015) (describing Avvo Ignite analytics features).

the same vein, law firms gain valuable information about potential clients by collecting and analyzing website visitor behavior.⁴⁶ How do website visitors originate—from eNewsletters, social media or other online sources? At which webpages do visitors spend the most or least amount of time? Are visitors accessing law firm portals on stationary or via mobile devices? By collecting, reporting and then relying on small data, small firms can make more reasonably informed decisions about their marketing.

LPMs, particularly those including dedicated, or hosting integrated, financial management features, represent valuable holistic tools for uncovering lost time and billings. For example, one LPM is built to identify unbilled activities by analyzing accumulated matter management details—information respecting tasks, meetings, and documents.⁴⁷ However, most LPMs can be configured to generate essential reports. Law firms that use LPMs to track time spent on administrative versus billable tasks may be able to construct workflows that will allow their attorneys to focus more of their time on tasks generating direct revenue. Law firms that simultaneously monitor individual attorneys' business development expenses, as well as their numbers of new client conversions, can better determine whether the expenditure is justified in the result. Clearly, monitoring small data in this detail positively affects business decision-making at a number of levels.

The ongoing analysis of internal financial data, such as utilization, realization, and collection rates,⁴⁸ allow solo and small firm lawyers to answer fundamental questions about the utility of their business practices:

Must a marketing budget be established to curtail initial client development expenses?

Should intake processes and client selection methods be amended?

Have recent technology purchases *actually* increased efficiency?

Is the firm billing enough to meet expenses?

46. See GOOGLE ANALYTICS, <http://www.google.com/analytics/> (last visited Apr. 7, 2015); Stephen Fairley, *How to Use Google Analytics to Improve Your Law Firm Marketing*, NATIONAL LAW REVIEW (Dec. 19, 2012), <http://www.natlawreview.com/article/how-to-use-google-analytics-to-improve-your-law-firm-marketing>.

47. See LexisNexis Firm Manager Releases 'Money Finder' Feature, BUSINESSWIRE (Mar. 27, 2014, 6:00 AM), <http://www.businesswire.com/news/home/20140327005030/en/LexisNexis-Firm-Manager-Releases-'Money-Finder'-Feature#.VIz04caJtFM>.

48. See George Psiharis, *A Clio Webinar: Metrics and the Modern Law Firm*, CLIO WEBINAR (Oct. 16, 2014), <http://www.slideshare.net/goClio/metrics-and-the-modern-law-firm>.

Must collection procedures be revised?

The foregoing section demonstrates that there is much to be gained from the use of small data by solo attorneys and small law firm managers.⁴⁹ In addition, this section will show that accessing small data (which is entirely within the control of the solo attorney or small law firm managing partner) does not require the same hefty financial outlay that accessing big data does.⁵⁰ Therefore, every solo and small law firm sits on a vast treasure trove holding forth the capability to trigger effective and meaningful change in law practice management. That is, if there is a concomitant willingness to develop procedures for collecting small data, creating reports from it and folding the knowledge derived from it into repeatable, entrenching firm practices. In short, reliance on small data can drastically impact a small law firm's profitability.

E. *Small Firms, Big Data*

Of course, the fact that solo lawyers and small law firm managers *can* access small data (even if they do not) only solves half of the problem. They still do not have the financial resources to acquire usable segments of big data, of the sort that big firms can and *do* access. In the current environment then, it is not possible for small law firms to replicate what big law firms do in leveraging big data. Solo lawyers and small firm partners may then place two bets, potentially simultaneously: leverage small data better than their competitors, and hope that is enough; and/or, wait out or compel a reasonable solution that will allow for small law to access targeted big data for a reasonable investment. Since we have already addressed the potential effectiveness of small data in the small law firm environment,⁵¹ let us now turn our attention to the waiting game.

There are two obvious paths bridging access to coherently rendered big (or, at least, "bigger") data for solo and small firms: the first represents a grass roots effort, and the second presents as an effective corporate solution. The choices are not mutually exclusive. Solo and small firm lawyers could, collectively, pool their small data, in order to create a corpus of big data for small law. Of course, we return to the question of making determinations as to just *how* that data is anonymized, given ethics and privacy concerns. However, if those concerns can be overcome (as they have in big law applications) by an agreed-upon standard, a small law-constructed base of practice-related

49. *See supra* Part I.D.1.

50. *See infra* Part I.E.

51. *See* Section I.

information across marketing, technology, and management categories could be a staggeringly powerful open source tool. One peculiar advantage to such an approach would be that the data would already necessarily be filtered at one level, that is, it would be information specific to solo and small firms. The primary challenge to this approach would be one of community organization. That is, gathering a significant enough number of solo and small firm attorneys willing to participate—within one system, and under one leadership model. Beyond that basic hurdle, the logistics are daunting, and are wrapped in questions surrounding motivation, platform development and dissemination. Also, collections of lawyers would not find solace in bar associations for guidance or support, given that the financial component would likely take those institutions out of the running over concerns about antitrust liability, as engendered by the *Goldfarb* decision⁵²

Perhaps, then, a likelier outcome will be that a company (or, companies) will offer a more reasonably priced, yet still relevant, collection of big data sources and reports that fit the small law environment. It could be that a collective effort of practicing lawyers, as described above,⁵³ would birth such a company—if for no other reason than the simple solution that selling data access could fund collection and distribution efforts. However, it is more likely that vendors *already* trafficking in that type of data will be the ones to develop a more usable platform. The notion of that head start, coupled with a first mover advantage once a platform is developed and marketed, might establish that first platform, if constructed well, as *the* platform. If the data is there, and can be rendered, the next question focuses on the drawing out of an effective interface. Massive conglomerates, like LexisNexis and Thomson Reuters, already provide big data services to large law firms; but, these corporations, especially via their maintenance of practice management software for small law offices, do keep big, or external, data about solo and small firm lawyers and their clients. Aggregating that data, and then selling it back to small law firms in bite-sized pieces, and *at a reasonable rate*, would be just another step. However, of the many obvious advantages that those two mentioned leviathans of legal hold over much of the remainder of the industry, there is one important snag that presents itself—outside of the question of whether it would be

52. See Richard T. McCoy, *The Antitrust Liability of Professional Associations After Goldfarb: Reformulating the Learned Professions Exemption in the Lower Courts*, 1997 DUKE L.J. 1047, (1997) available at <http://scholarship.law.duke.edu/cgi/viewcontent.cgi?article=2640&context=dlj> (for a review of the effect of that decision on bar associations).

53. See *infra* Part I.E.

a profitable endeavor for companies that may be better off generating revenue elsewhere—and, that is, that both LexisNexis and Thomson West are relatively new entrants to the cloud LPM field.⁵⁴ That means that a smaller corporation providing cloud-based LPM,⁵⁵ with the advantage of a longer standing (plus, read: more data collected) in the small firm community, would be better positioned than LexisNexis or Thomson West to offer a big or bigger data solution to solo lawyers and small law firms.⁵⁶ The question is whether companies like RocketMatter, Clio, MyCase, or others,⁵⁷ would focus on developing such a platform, and whether it could be priced effectively for the market.

II. HIP TO BE SQUARE: TIME AND PRESSURE

Over the course of time, this is all liable to become moot. As costs of data collection are reduced, and as more refined methods for reporting on data are developed, the price of solutions, in the legal market and elsewhere, will necessarily become more reasonable.

However, if solo attorneys and small law firms exhibit a continuing interest in big data, through the development of analytics, and a willingness to apply and pay for rudimentary/developing products, more and more effective platforms will come to be built, as service providers will not turn a blind eye to a squeaky, unmet need in a vector as large as the small legal industry. Even if it is only a matter of time for small law firms, and for small business everywhere, to gain a better understanding of big data, there is no harm in pushing the envelope in the meantime—until the future arrives.

54. See *LexisNexis Firm Manager Releases 'Money Finder' Feature*, *supra* note 47 (discussing Thomson West's 'Firm Central', which is its cloud-based case management solution for small firms); see also Robert Ambrogi, *Thomson Reuters Cloud Platform Emphasizes Integration—At a Cost*, ABA JOURNAL, (Nov. 1, 2013, 6:19 AM), http://www.abajournal.com/magazine/article/thomson_reuters_cloud_platform_firm_central_emphasizes_integration--at_a_co/.

55. If the importance of utilizing data maintained in the cloud is not readily apparent, it is because that data is maintained on the vendor's own servers, and so most easily accessible.

56. Dolin, *supra* note 20 (Ron Dolin was the original suggestor of this solution to me).

57. Especially companies featuring significant private investment, like Clio. See Robert Ambrogi, *Clio Gets \$20 Million Financing Deal*, LAW SITES (Mar. 25, 2014), <http://www.lawsitesblog.com/2014/03/clio-gets-20-million-financing-deal.html>.