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## Litigating in the 21st Century: Amending Challenges For Cause in Light of Big Data

Andrew Kasabian

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## I. INTRODUCTION

“[N]ever take a wealthy man on a jury. He will convict unless the defendant is accused of violating the anti-trust law, selling worthless stocks or bonds or something of that kind.”<sup>1</sup> While this is representative of the traditional view of jury selection, technology is changing how parties decide which jurors they want and what juror traits are desirable.<sup>2</sup> Paired with the rising prominence and use of social media, which increases the amount of personal information available, the legal community is at a crucial crossroads.<sup>3</sup> Namely, what are permissible actions by lawyers in pretrial jury research and challenges to potential jurors?

The amount of data generated daily is growing exponentially.<sup>4</sup> Experts predict that ninety percent of future data growth will be unstructured data.<sup>5</sup> Unstructured data is data that lacks any predefined structure and does not fit into traditional row-column databases.<sup>6</sup> Big Data analytics<sup>7</sup> provide the

1. Adam J. Hoskins, Note, *Armchair Jury Consultants: The Legal Implications and Benefits of Online Research of Prospective Jurors in the Facebook Era*, 96 MINN. L. REV. 1100, 1105 (2012).

2. See *infra* Part II.A.2.

3. See Hoskins, *supra* note 1, at 1101–02.

4. Damon Poeter, *Intel Attempts to Demystify Big Data*, PCMAG.COM (July 22, 2013, 2:54 PM), <http://www.pcmag.com/article2/0,2817,2422105,00.asp>. As noted by one technology expert: “Apollo 11 ran on approximately 74 kilobytes of memory and did about 50 calculations per second,” whereas today LexisNexis’s “content fabrication system—not including the search engine or any other technology—runs on a petabyte of storage and does between 5,000 and 10,000 calculations per second.” Joe Dysart, *How Lawyers are Mining the Information Mother Lode for Pricing, Practice Tips and Predictions*, A.B.A. J. (May 1, 2013, 10:20 AM), [http://www.abajournal.com/magazine/article/the\\_dawn\\_of\\_big\\_data/](http://www.abajournal.com/magazine/article/the_dawn_of_big_data/). A petabyte is the equivalent of 1,000,000,000,000 kilobytes. *Id.*

5. Poeter, *supra* note 4.

6. See Vangie Beal, *Unstructured Data*, WEBOPEDIA, [http://www.webopedia.com/TERM/U/unstructured\\_data.html](http://www.webopedia.com/TERM/U/unstructured_data.html) (last visited Oct. 11, 2015); *Structured and Unstructured Data 2010–2015*, WHAT’S THE BIG DATA? (Feb. 8, 2014), <http://whatsthebigdata.com/2014/02/08/structured-and-unstructured-data-2010-2015/>. Because it lacks any predefined structure, unstructured data generally does not mean a lot in the context of other sources of information. Poeter, *supra* note 4. Examples of unstructured data include email messages, videos, images, metadata, social media posts, cell phone calls, and online transactions. Beal, *supra*; Jeff Kelly, *Big Data: Hadoop, Business Analytics and Beyond*, WIKIBON, [http://wikibon.org/wiki/v/Big\\_Data:\\_Hadoop,\\_Business\\_Analytics\\_and\\_Beyond](http://wikibon.org/wiki/v/Big_Data:_Hadoop,_Business_Analytics_and_Beyond) (last updated Feb. 5, 2014). Metadata is defined as data about data, or “electronically stored evidence that describes the ‘history, tracking, or management of an electronic document.’” Larry N. Zimmerman, *Metadata Brings More Value than Harm to Attorneys’ Practice*, 78 J. KAN. B. ASS’N 24, 24 (2009) (quoting *Williams v. Sprint/United Mgmt. Co.*, 230 F.R.D. 640, 646 (Kan. 2005)). For example, a digital image may have metadata attached to it that describes the attributes of an image, such as its height and width. *Use of Metadata in TIFF Files*, ADEO IMAGING OÜ, [http://www.adeoimaging.com/metadata\\_tiff.php](http://www.adeoimaging.com/metadata_tiff.php)

capabilities to analyze this seemingly unrelated data to find hidden and meaningful correlations.<sup>8</sup> Thus, Big Data can alter trial preparation by opening up new sets of information for lawyers to analyze in preparation for trial, notably in the jury selection process.<sup>9</sup> While this can have great benefits,<sup>10</sup> it may also invoke serious ethical and privacy issues.<sup>11</sup>

It facially appears that the privacy concerns of incorporating Big Data into the trial preparation process outweigh the positives to the litigants.<sup>12</sup> However, this Comment will detail how Big Data will provide a net benefit to trial preparation with a statutory change to challenges for cause.<sup>13</sup> To prevent an expansive and overbroad use of Big Data and similar technology in the jury selection process, there should be statutory limitations in place.<sup>14</sup> This change will safeguard the rights and privacy of individual jurors while simultaneously ensuring that legal professionals, notably in the jury selection process, may utilize Big Data.<sup>15</sup>

This Comment begins in Part II by providing the background of jury selection, including the role of trial consultants,<sup>16</sup> the use of technology to facilitate pretrial research, a juror's right to privacy, and challenges in the jury selection process.<sup>17</sup> Part II also provides a brief overview of Big Data,

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#metadata (last visited Oct. 5, 2015). It can also contain content-based metadata such as “the name of the photographer, and the date and time when a photograph was taken.” *Id.*

7. Big Data refers to unstructured and non-traditional types of data. Kelly, *supra* note 6. As later discussed, this data is not as easily analyzed as traditional forms of data, but Big Data can provide individuals and organizations with much more information than previously available. *See infra* Part II.B.

8. Poeter, *supra* note 4.

9. *See infra* Part III.A.

10. The benefits include, but are not limited to, Big Data's role in determining community values, determining desirable juror traits, and predictive analysis on individual jurors or groups of jurors. *See infra* Part IV.A.

11. *See infra* Part IV.B.

12. *See infra* Part IV.

13. *See infra* Parts III–IV.

14. *See, e.g.*, COLO. REV. STAT. § 16-10-103 (1998); *People v. Rodriguez*, 914 P.2d 230, 263 (Colo. 1996) (en banc) (noting the burden to prove a potential juror is biased rests on the challenging party). This Comment will focus on a specific California statutory change. *See infra* Part III.

15. *See infra* Part IV.

16. Trial consulting includes the more commonly referenced jury consulting. *See infra* Part II.A.1. For consistency, this Comment will refer to the industry, as a whole, as trial consulting rather than jury consulting.

17. *See infra* Part II.A. This Comment will focus primarily on California statutes, notably the California Civil Procedure Code.

its use in various industries, and privacy concerns associated with Big Data.<sup>18</sup> Part III contains a recommended statutory change to challenges for cause, with a focus on California's Civil Procedure Code.<sup>19</sup> Finally, Part IV discusses why this amendment is preferable by detailing how the amendment limits juror privacy concerns while protecting Big Data's benefits.<sup>20</sup>

## II. BACKGROUND

### A. Jury Selection

While some scholars believe trial by jury is unique to the Anglo-American legal system and tradition,<sup>21</sup> the concept of a jury dates back to Ancient Greece.<sup>22</sup> In the United States, the right to trial by jury is a fundamental right dating back to the ratification of the United States Constitution.<sup>23</sup> The Sixth Amendment provides that, in criminal trials, a defendant has "the right to a speedy and public trial, by an *impartial jury* of the State."<sup>24</sup> The Seventh Amendment protects the right of trial by jury in civil cases "where the value in controversy shall exceed twenty dollars."<sup>25</sup>

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18. See *infra* Part II.B. California's Civil Procedure Code affects both criminal and civil challenges and jury selection. See CAL. CIV. PROC. CODE § 231 (West 2012) (discussing the number of challenges available in criminal and in civil cases).

19. See *infra* Part III.

20. See *infra* Part IV.

21. JAMES J. GOBERT & WALTER E. JORDAN, JURY SELECTION: THE LAW, ART AND SCIENCE OF SELECTING A JURY § 1:1 (3d ed. 2013).

22. Jennifer Walker Elrod, *Is the Jury Still Out?: A Case for the Continued Viability of the American Jury*, 44 TEX. TECH L. REV. 303, 310 (2012) ("Athenian juries, called dicasts or dikasteria, 'were composed of qualified citizens randomly selected by lot to serve on a particular case.'" (quoting Morris B. Hoffman, *Peremptory Challenges Should Be Abolished: A Trial Judge's Perspective*, 64 U. CHI. L. REV. 809, 814 (1997))).

23. See U.S. CONST. amends. VI–VII.

24. *Id.* amend. VI (emphasis added). This right was later incorporated to the states through the Fourteenth Amendment. See *Duncan v. Louisiana*, 391 U.S. 145, 149 (1968) ("[T]he Fourteenth Amendment guarantees a right of jury trial in all criminal cases which—were they to be tried in a federal court—would come within the Sixth Amendment's guarantee.").

25. U.S. CONST. amend. VII. This right has not been incorporated to the states, however many states provide for a similar protection in state courts or state constitutions. See CAL. CONST. art. 1, § 16 ("Trial by jury is an inviolate right and shall be secured to all . . ."); *Minneapolis & St. Louis R.R. Co. v. Bombolis*, 241 U.S. 211, 219–20 (1916).

The jury selection process protects this constitutional right.<sup>26</sup> The composition of a jury has a large effect on the resolution of a case.<sup>27</sup> Thus, jury selection has increasingly become a key aspect of trial preparation.<sup>28</sup> Over time, this process has shifted and evolved, and now there are complex mechanisms for selecting jurors.<sup>29</sup> In line with the adversarial spirit of the American legal system, the legal system and lawyers have compelled the creation of a new industry that assists with the selection of these essential juries: trial consulting.<sup>30</sup>

### 1. Trial Consultants in Jury Selection

First utilized in trials during the early 1970s, trial consultants are experts who use a variety of methods to select a jury sympathetic to one side's case.<sup>31</sup> Twenty years after its initial use, trial consulting was a \$400 million-a-year industry.<sup>32</sup> Because of the important role that juries play in a trial's verdict, consultants and other forms of trial preparation have become de rigueur in various types of litigation.<sup>33</sup>

26. See 47 AM. JUR. 2d Jury § 103 (2014).

27. See Elrod, *supra* note 22, at 312.

28. See Rachel Hartje, Comment, *A Jury of Your Peers?: How Jury Consulting May Actually Help Trial Lawyers Resolve Constitutional Limitations Imposed on the Selection of Juries*, 41 CAL. W. L. REV. 479, 492 (2005).

29. See 47 AM. JUR., *supra* note 26, § 112. For example, the Jury Selection and Service Act established that prospective jurors for federal trials are pulled from voter registration lists or the lists of actual voters. 28 U.S.C. § 1863(b)(2) (2012). At least one half of one percent of the total number of prospective jurors in the specific district are placed in a master jury wheel, which can be a physical or electronic device, unless that number is unnecessary or cumbersome. *Id.* §§ 1863(b)(4), 1869(g). The required number of potential jurors for jury panels is publicly and randomly drawn from the master jury wheel. *Id.* § 1864(a). Finally, the selected potential jurors who are qualified and not exempt are placed in a qualified jury wheel, from which the final list of potential jurors is randomly drawn. *Id.* § 1866(a).

30. Maureen E. Lane, *Twelve Carefully Selected Not So Angry Men: Are Jury Consultants Destroying the American Legal System?*, 32 SUFFOLK U. L. REV. 463, 472–73 (1999).

31. *Id.* at 463–64. One of the first notable uses of scientific jury selection came “with the successful defense of the ‘Harrisburg Seven,’ a group of Vietnam War protesters accused of, among other things, conspiring to destroy selective service records and kidnap Henry Kissinger.” Franklin Strier & Donna Shestowsky, *Profiling the Profilers: A Study of the Trial Consulting Profession, Its Impact on Trial Justice and What, if Anything, to Do About It*, 1999 WIS. L. REV. 441, 444 (1999).

32. Strier & Shestowsky, *supra* note 31, at 444.

33. *Id.* at 444–45. Many prominent trial lawyers raise sentiments similar to that of a prominent Boston trial lawyer, who proclaimed that “[n]o self-respecting trial lawyer will go through the process of jury selection in an important case without the assistance of highly paid trial consultants.”

There are four categories of trial consultant services: pretrial research, jury selection, courtroom presentation and strategy, and post-trial services.<sup>34</sup> During pretrial research, consultants attempt to understand the prevalent values and views in the community where a case will be tried.<sup>35</sup> Consultants evaluate these values through community attitude surveys, focus groups, and mock trial simulations.<sup>36</sup>

There are two basic types of jury research: qualitative and quantitative research.<sup>37</sup> Qualitative research focuses on mock jury selection and trial practice so that a party can identify the most effective trial themes and juror profiling trends.<sup>38</sup> Quantitative research focuses on large-scale surveys to determine the attitudes and beliefs of the community, as well as develop reliable juror profiles.<sup>39</sup> These large-scale community attitude surveys use carefully designed questions to evaluate randomly selected individuals from the potential jurors' community.<sup>40</sup> Consultants conduct community attitude surveys to determine whether jurors in a particular community have a reputation for favoring a particular side in certain types of disputes.<sup>41</sup> This is not an exhaustive list—other duties of trial consultants in the pretrial research and jury selection stages include investigating prospective jurors, formulating voir dire<sup>42</sup> questions, conducting change of venue studies, and

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*Id.* at 443.

34. *Id.* at 451–55. This Comment focuses on pretrial research and jury selection.

35. *Id.* at 451.

36. *Id.* at 451–52.

37. Walter F. Becker, Jr., *How to Use a Jury Consultant: A Guide for Trial Attorneys*, 50 LA. B.J. 426, 427 (2003).

38. *Id.*

39. *Id.* Juror profiles generally contain either information about individual jurors or contain information about the traits and personality that either the most or least ideal jurors have. MARILYN J. BERGER, JOHN B. MITCHELL & RONALD H. CLARK, TRIAL ADVOCACY: PLANNING, ANALYSIS, AND STRATEGY 177–82 (Vicki Been et al. eds., 2d ed. 2008).

40. Margaret Covington, *Jury Selection: Innovative Approaches to Both Civil and Criminal Litigation*, 16 ST. MARY'S L.J. 575, 593 (1985). The objective of a community attitude survey is to determine the profile of the ideal juror in a particular jurisdiction and the characteristics of the individual who will not be directly opposed to the party's position. *Id.*

41. MICHAEL R. FONTHAM, TRIAL TECHNIQUE AND EVIDENCE 43 (Kim J. Askew et al. eds., 3d ed. 2008). However, drawing conclusions about how a case may be resolved based solely on community surveys can be dangerous because particular jurors each have their own independent reactions to cases and facts. *Id.*

42. Voir dire is the process through which the court or attorneys select which venire members will serve on a jury. STEVEN LUBET, MODERN TRIAL ADVOCACY 404 (Kim J. Askew et al. eds., 3d ed. 2010). Voir dire questioning is used to narrow the venire, or the jury pool, down to the final

other jury selection strategies.<sup>43</sup> In jurisdictions where courts release juror names in advance, trial consultants may often interview jurors' acquaintances, drive by jurors' homes,<sup>44</sup> and otherwise pry into their backgrounds.<sup>45</sup> However, with the increasing use of technology, attorneys in many situations have begun acting as their own trial consultants.<sup>46</sup>

## 2. Technology and Pretrial Research

The American Bar Association has recognized the importance of technology by adopting and amending the Model Rules of Professional Conduct in August 2012 to reflect technology's importance.<sup>47</sup> The Model Rules recommend that attorneys should remain aware of new technology and its uses in the practice of law in order to maintain sufficient competency.<sup>48</sup>

Courts have recognized that pretrial investigations of prospective jurors are both legal and common.<sup>49</sup> Lawyers "have long conducted pretrial

jury. *Id.*

43. Strier & Shestowsky, *supra* note 31, at 453–54.

44. A trial consultant's drive-by of a potential juror's house is used to record "the character of the individual's neighborhood, automobile, pets, bumper stickers, and other indications of the juror's lifestyle or beliefs." David Weinstein, *Protecting a Juror's Right to Privacy: Constitutional Constraints and Policy Options*, 70 TEMP. L. REV. 1, 34 (1997).

45. *Id.* at 33–34.

46. Hoskins, *supra* note 1, at 1100–01; *see infra* notes 47–57 and accompanying text.

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

48. MODEL RULES OF PROF'L CONDUCT R. 1.1 cmt. 8 (AM. BAR ASS'N 2014). A comment to Rule 1.1, which defined competence, was amended to state: "To maintain the requisite knowledge and skill, a lawyer should keep abreast of changes in the law and its practice, including the benefits and risks associated with relevant technology, engage in continuing study and education and comply with all continuing legal education requirements to which the lawyer is subject." *Id.* The Model Rules also require that a lawyer act with "zeal in advocacy upon the client's behalf." *Id.* R. 1.3 cmt. 1. Thus, lawyers may be "ethically bound to make use of easily accessible, inexpensive online resources" and other forms of technology. Jonathan M. Redgrave & Jason J. Stover, *The Information Age, Part II: Juror Investigation on the Internet—Implications for the Trial Lawyer*, 2 SEDONA CONF. J. 211, 218 (2001).

49. *See, e.g.*, State v. Knerr, 426 N.W.2d 654, 656 (Iowa Ct. App. 1988) ("It is a recognized practice for an attorney to make investigations of prospective jurors so that challenges can be utilized intelligently."). As one court noted, "It is common knowledge that litigants traditionally investigate prospective jurors to ascertain their qualifications and attitude." Martin v. United States, 266 F.2d 97, 99 (5th Cir. 1959).



research on prospective jurors. The limits of juror investigation are set only by local rules and ethical constraints.”<sup>50</sup> But with the rapid advancement of technology, specifically the increasing use of the Internet and social media, trial attorneys have begun to fill the role of both advocate and trial consultant.<sup>51</sup> Trial lawyers and jury consultants have different areas of expertise, so they have traditionally coexisted; however, technology has caused this relationship to shift.<sup>52</sup>

In jurisdictions where a court releases the pool of potential jurors weeks in advance,<sup>53</sup> attorneys have multiple ways to obtain information about potential jurors.<sup>54</sup> This now includes the ability to obtain information about jurors from basic Google searches.<sup>55</sup> Pretrial research is not just limited to Google searches, but also includes “Facebook, Twitter, MySpace, consumer complaint websites, arrest records, jurors’ personal blogs, online newspapers’ letters to the editor, . . . [or] online public records.”<sup>56</sup> Research

50. Hoskins, *supra* note 1, at 1106 (internal footnotes omitted). For example, the Western District of Pennsylvania requires that attorneys certify that they will not communicate with a prospective juror or the juror’s family members prior to trial. W.D. PA. LOCAL CRIM. R. 24.1. This certification is required before any attorney can receive the list of potential jurors. *Id.*

51. *See* Hoskins, *supra* note 1, at 1106 (discussing the shift from traditional trial consultants back to attorneys who act as their own “armchair jury consultants” by conducting online pretrial investigation of jurors).

52. Strier & Shestowsky, *supra* note 31, at 445. Over 75% of trial consultants have a Ph.D. or a Master’s degree, whereas only 11% of trial consultants have a J.D. *Id.* at 448. In addition, the majority of these graduate degrees are not in legal-related fields, but rather fields such as sociology and psychology. *Id.* Attorneys are trained to focus on law and facts, whereas consultants look at “a far broader scope of potentially influential factors.” *Id.* at 445.

53. *See, e.g., Knerr*, 426 N.W.2d at 656; *State v. Harbison*, 238 S.E.2d 449, 453 (N.C. 1977) (“[T]he names of the sixty jurors were publicly known for fifty-five days prior to the time the case was called for trial.”). This is a regular activity; the majority of courts release the potential juror lists prior to jury selection. Hoskins, *supra* note 1, at 1120.

54. *See* CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, EVIDENCE UNDER THE RULES: TEXT, CASES, AND PROBLEMS 5 (Vicki Been et al. eds., 7th ed. 2011). This includes private agencies, which rent out jury books about individual members of the jury. *Id.* A jury book would include information about jury panel members such as “age, marital status, occupation, [and] prior jury service.” *Id.*

55. Hoskins, *supra* note 1, at 1108.

56. *Id.* at 1108–09 (internal footnotes omitted). Individuals on these sites are not considered to have a “reasonable expectation of privacy”; therefore, privacy may be implicated but not violated. *Id.* at 1111. In criminal cases, or any other case where the government is a party, government attorneys have used their resources within the government, such as law enforcement agents, to conduct inquiries as well. Weinstein, *supra* note 44, at 33. Government attorneys may also have access to, and use, FBI reports, credit records, criminal records, and tax returns to help expand the information they have about potential jurors. *Id.*

shows that online and social media presence is an accurate indication of an individual's personality.<sup>57</sup> The options are nearly endless, and, so long as attorneys do not directly contact prospective jurors, there are no ethical violations with investigating potential jurors.<sup>58</sup> Courts have held that lawyers can research publicly accessible information on the Internet without triggering privacy laws as well.<sup>59</sup>

### 3. Juror's Right to Privacy

Potential jurors, as citizens with the power to sentence a person to jail for life in a criminal case or award a party millions of dollar in a civil case, facially appear to be susceptible to privacy violations.<sup>60</sup> This is because, as "zealous advocates," attorneys have a large incentive to research prospective jurors.<sup>61</sup> With an increasing prevalence of technology that makes researching potential jurors easy,<sup>62</sup> the question becomes: to what extent does a potential juror have a right to privacy?

*Griswold v. Connecticut* first explicitly established privacy as a legally protected right.<sup>63</sup> Two years later, in his concurrence in *Katz v. United*

57. Jennifer Golbeck, Cristina Robles & Karen Turner, *Predicting Personality with Social Media*, 2011 CHI 253, 253–54 (2011), <http://hciil2.cs.umd.edu/trs/2010-30/2010-30.pdf> (discussing to what extent information on a person's Facebook page can accurately reflect that individual's personality). By analyzing an individual's self-description, status updates, photos, and interests, these researchers can calculate an individual's level of openness, conscientiousness, extraversion, agreeableness, and neuroticism within a small range of their actual levels of these traits. *Id.* at 253, 258–59.

58. See MODEL RULES OF PROF'L CONDUCT R. 3.5(b) (AM. BAR ASS'N 2014) ("A lawyer shall not . . . communicate ex parte with [a juror or prospective juror] during the proceeding.")

59. See *United States v. Charbonneau*, 979 F. Supp. 1177, 1185 (S.D. Ohio 1997) (holding that an individual does not have "a reasonable expectation of privacy in [] chat rooms"). This is because as an electronic submission is sent out "to more and more subscribers, the subsequent expectation of privacy incrementally diminishes." *United States v. Maxwell*, 45 M.J. 406, 417, 419 (C.A.A.F. 1996) (holding that an individual possessed only limited privacy in email messages sent and received on AOL); see also *Hoskins*, *supra* note 1, at 1111 ("Courts have found that prospective jurors should have no reasonable expectation of privacy based on their actions on the Internet . . ."). However, this does not completely remove privacy concerns for potential jurors. See *infra* Part II.A.3.

60. See *infra* notes 72–79.

61. Joel Cohen, *When Lawyers Investigate Jurors (Electronically)*, STROOCK & STROOCK & LAVAN LLP 4 (Aug. 14, 2012), <http://www.stroock.com/siteFiles/Pub1220.pdf>.

62. See *supra* notes 55–59 and accompanying text.

63. 381 U.S. 479, 484 (1965) (noting the Fourth Amendment and the Bill of Rights have guarantees that create zones of privacy). This is a right to privacy from government intrusion, not from other private individuals. *Id.* at 483–84. Tort law also protects an individual's right to privacy,

*States*,<sup>64</sup> Justice Harlan created the formula for determining whether government action has violated an individual's right to privacy.<sup>65</sup> There must be an actual, subjective expectation of privacy and a reasonable expectation of privacy.<sup>66</sup> In *Whalen v. Roe*, the Supreme Court held that there was another zone of privacy that protects an "individual interest in avoiding disclosure of personal matters."<sup>67</sup> Later, in *Press-Enterprise Co. v. Superior Court*, the Supreme Court expanded the right to privacy to jurors and acknowledged jurors may, in some circumstances, have a compelling interest in refusing to disclose certain information related to deeply personal matters.<sup>68</sup> This compelling interest arises when voir dire "touches on deeply personal matters that [the potential juror] has legitimate reasons for keeping out of the public domain."<sup>69</sup> Thus, a juror's right to privacy is not absolute because a juror's service inherently exposes the juror to inquiries to determine the juror's ability to be fair.<sup>70</sup>

News headlines in recent years, such as Edward Snowden divulging the National Security Agency's surveillance of United States citizens, illustrate

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or "the right to be let alone," from other private individuals. RESTATEMENT (SECOND) OF TORTS § 652A cmt. a (AM. LAW INST. 1977). However, this tort claim is not relevant to the issue at hand.

64. 389 U.S. 347 (1967). *Griswold* and *Katz* were part of a string of cases that, beginning in the 1960s, began recognizing a constitutional right to privacy that encompassed an individual's autonomy in certain personal decisions. See, e.g., *Zablocki v. Redhail*, 434 U.S. 374 (1978) (addressing marriage); *Roe v. Wade*, 410 U.S. 113 (1973) (addressing abortion); *Katz*, 389 U.S. 347 (addressing phone communications); *Griswold*, 381 U.S. 479 (addressing contraception).

65. *Katz*, 389 U.S. at 361 (Harlan, J., concurring).

66. *Id.* A reasonable expectation of privacy is an expectation of privacy "that society is prepared to recognize." *Id.*

67. 429 U.S. 589, 599 (1977). In this case, physicians and patients argued that a New York statute requiring the disclosure and recording of individuals who were prescribed certain drugs was unconstitutional. *Id.* at 591. However, the Court found that the statute did not violate this right to privacy because the state had a strong interest in the statute and there were statutory protections against the public disclosure of the information that New York compiled. *Id.* at 597–604.

68. 464 U.S. 501, 511 (1984). The underlying trial contained testimony about an alleged rape of a teenage girl and there were some questions that were appropriate for the potential jurors but may have nonetheless triggered a privacy interest. *Id.* at 512. One problematic line of questioning was a party's inquiry into whether or not a prospective juror, "or a member of her family, had been raped but had declined to seek prosecution because of the embarrassment and emotional trauma" from the rape. *Id.*

69. *Id.* at 511. The *Press-Enterprise* Court held that there was a protected privacy interest when a prospective juror was questioned about the rape of one of her family members. *Id.* at 512.

70. *United States v. McDade*, 929 F. Supp. 815, 817–18 (E.D. Pa. 1996) ("[Jurors'] jury service does expose them to some searching inquiry as to such matters as their ability to be fair, their absence of preconceived, fixed opinions.").

the lack of “privacy” that exists in today’s technological world.<sup>71</sup> There is little doubt that the amount of information that we can keep secret is shrinking.<sup>72</sup> The growing concern is that as more information about each person becomes available, each person’s privacy shrinks.<sup>73</sup> Jurors may particularly be susceptible to this infringement because of the litigants’ interests in knowing about potential jurors.<sup>74</sup> With more sophisticated technology, it is easier for litigants to research jurors.<sup>75</sup> This results in greater chances of invasion of privacy.<sup>76</sup> In response, courts, legislatures, and individual litigants must determine how to protect juror privacy while simultaneously safeguarding the competing interests of a defendant’s right to a fair trial in a criminal case, the rights of the various parties in a civil case, or the public’s right to access court proceedings.<sup>77</sup> Finally, jurors are often susceptible to privacy infringements because attorneys and parties want to know which potential jurors to challenge during the jury selection process.<sup>78</sup>

#### 4. Challenges in Jury Selection

When selecting a jury in civil and criminal cases in California, both sides receive a certain number of peremptory challenges and challenges for cause.<sup>79</sup> A challenge for cause is a challenge by a party for a specific reason,

71. See, e.g., Glenn Greenwald et al., *Edward Snowden: The Whistleblower Behind the NSA Surveillance Revelations*, THE GUARDIAN (June 11, 2013, 9:00 AM), <http://www.theguardian.com/world>

/2013/jun/09/edward-snowden-nsa-whistleblower-surveillance. This is the original article that revealed Edward Snowden’s role as the whistleblower that exposed the United States government’s role in “destroy[ing] privacy, internet freedom and basic liberties for people around the world.” *Id.*

72. Neil M. Richards & Jonathan H. King, *Big Data Ethics*, 49 WAKE FOREST L. REV. 393, 410 (2014).

73. Daniel J. Solove, *A Taxonomy of Privacy*, 154 U. PA. L. REV. 477, 506–07 (2006). “A piece of information here or there is not very telling. But when combined together, bits and pieces of data begin to form a portrait of a person. The whole becomes greater than the parts.” *Id.* This creates an aggregation of information problem. Weinstein, *supra* note 44, at 35–36.

74. See Hoskins, *supra* note 1, at 1106.

75. See *supra* notes 54–58 and accompanying text.

76. See Hoskins, *supra* note 1, at 1101–02 (noting pretrial investigations may invade juror privacy).

77. Weinstein, *supra* note 44, at 2 (discussing many of the concerns with a juror’s right to privacy within the context of voir dire, juror investigation, and juror identification).

78. See Hopkins, *supra* note 1, at 1106–07.

79. CAL. CIV. PROC. CODE §§ 222.5, 223 (West 2012). “A challenge is an objection made to the trial jurors that may be taken by any party to the action . . . .” *Id.* § 225. In criminal cases where the

such as bias or general disqualification, which makes a potential juror ineligible to serve on that particular jury.<sup>80</sup> A peremptory challenge is a challenge to a potential juror that, unlike a challenge for cause, does not need to be supported by a reason.<sup>81</sup> California's current statute for challenges for cause states:

The challenges of either party for cause need not all be taken at once, but they may be taken separately, in the following order . . . :

- (a) To the panel.
- (b) To an individual juror, for a general disqualification.
- (c) To an individual juror, for an implied bias.
- (d) To an individual juror, for an actual bias.<sup>82</sup>

A challenge for cause must state the particular basis for the challenge.<sup>83</sup>

The California Civil Procedure Code states specific causes that must provide the basis for implied bias.<sup>84</sup> The causes are where the juror: (1) has consanguinity "within the fourth degree to any party," including any witness or victim; (2) stands in relation of any party, including a holder of bonds or officer of a corporation that is a party; (3) has previously served as a witness

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offense may be punishable by death or life imprisonment, each party has twenty peremptory challenges. *Id.* § 231(a). In criminal cases where the offense charged is punishable with a maximum term of more than ninety days but less than life imprisonment, each party has ten peremptory challenges. *Id.* In criminal cases where the offense charged is punishable with a maximum term of ninety days or less, each party has six peremptory challenges. *Id.* § 231(b). Finally, each party has six peremptory challenges in civil cases. *Id.* § 231(c). There is no limit on challenges for cause. *See About the Trial Process*, CAL. CTS., <http://www.courts.ca.gov/2240.htm> (last visited Oct. 6, 2015); *see also* BERGER ET AL., *supra* note 39, at 164 ("Challenges for cause are unlimited in number.").

80. *Challenge*, BLACK'S LAW DICTIONARY (10th ed. 2014). All challenges for cause must be exercised before any peremptory challenges are exercised. CIV. PROC. § 226(c).

81. *Challenge*, BLACK'S LAW DICTIONARY (10th ed. 2014).

82. CIV. PROC. § 227.

83. *People v. Owens*, 56 P. 251, 252 (Cal. 1899). In this case, the defendant tried to remove several jurors for cause. *Id.* In three of these challenges, the record only showed that "[t]he defense . . . challenged him for cause." *Id.* The Supreme Court of California found that "[t]hese challenges were manifestly insufficient." *Id.*

84. CIV. PROC. § 229.

or juror for a criminal or civil action between the same parties; (4) has an interest as a juror in the action; (5) has an unqualified opinion of the merits based on knowledge of material facts; (6) has a state of mind showing bias for or against a party; (7) is party to the current action; or (8) has a conscientious objection to the death penalty in a case with an offense punishable by death.<sup>85</sup>

California courts may grant a challenge for cause based on general disqualification for two reasons: the challenged person lacks one of the statutorily prescribed juror qualifications or has an incapacity that renders the individual unable to perform jury duties “without prejudice to the substantial rights of the challenging party.”<sup>86</sup> Unlike implied bias or general disqualification, a challenge for cause for actual bias does not have listed reasons.<sup>87</sup> It is judged against a general standard.<sup>88</sup> Challenges for cause for actual bias are the primary type of challenge for cause during jury selection.<sup>89</sup>

Once a party challenges a juror for cause, assessing a juror’s qualification falls within the broad discretion of the trial court.<sup>90</sup> The California Civil Procedure Code merely states that a challenged juror or another person “may be examined as a witness in the trial of the challenge, and shall truthfully answer all questions propounded to them.”<sup>91</sup> This standard has caused problems with trial courts, resulting in inconsistent outcomes because of trial courts’ wide discretion and the lack of a clear and

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85. *Id.* § 229(a)–(h).

86. *Id.* § 228. The prescribed qualifications that jurors must meet include: (1) citizens of the United States and residency in the jurisdiction where they were summoned, (2) at least eighteen years of age, (3) not convicted felons, and (4) possess a sufficient understanding of the English language. *Id.* § 203; *see also* LUBET, *supra* note 42, at 404 (noting that most minimal statutory qualifications for jury service are the ability to understand English, at least eighteen years of age, and not convicted felons).

87. BERGER ET AL., *supra* note 39, at 164.

88. *Id.*

89. *Id.* at 164–65.

90. *See, e.g.*, CIV. PROC. § 230 (stating the trial court judge rules on challenges for cause); *People v. Ledesma*, 140 P.3d 657, 680 (Cal. 2006) (finding that the trial court had the authority and discretion to determine whether a department of corrections employee could be removed for cause). This stands in contrast to other states’ statutory schemes that require the party challenging a particular juror to demonstrate that the potential juror lacks impartiality. *See, e.g.*, *People v. Arko*, 159 P.3d 713, 719 (Colo. App. 2006), *rev’d on other grounds*, 183 P.3d 555 (Colo. 2008) (en banc).

91. CIV. PROC. § 230.

defined standard.<sup>92</sup>

Unlike challenges for cause, a peremptory challenge is a challenge that does “not need to be supported by a reason unless the opposing party makes a prima facie showing that the challenge was used to discriminate on the basis of race, ethnicity, or sex.”<sup>93</sup> The use of peremptory challenges, however, is not unlimited.<sup>94</sup> In a criminal case, a party may object to an opposing party’s peremptory challenge on the basis of an impermissible reason (race, ethnicity, or sex).<sup>95</sup> This objection, known as a *Batson* challenge, originates from *Batson v. Kentucky*, where the Supreme Court held a prosecutor could not strike jurors because of their race.<sup>96</sup> However, parties may exclude prospective jurors under other major identifying demographic factors such as age or political affiliation.<sup>97</sup>

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92. *Brandborg v. Lucas*, 891 F. Supp. 352, 358 (E.D. Tex. 1995) (“The limits of a suitable inquiry into a juror’s bias and prejudice have troubled the courts with piece-meal results.”). In this case, a potential juror refused to answer twelve questions about religion and political affiliation on a voir dire questionnaire because the questions were private in nature. *Id.* at 353–54. The juror was held in contempt of court, but the district court reversed the contempt conviction due to the importance of balancing the rights of the juror. *Id.* at 355–56.

93. *Challenge*, BLACK’S LAW DICTIONARY (10th ed. 2014); see CIV. PROC. § 231.5 (“A party may not use a peremptory challenge to remove a prospective juror on the basis of an assumption that the prospective juror is biased merely because of his or her race, color, religion, sex, national origin, sexual orientation, or similar grounds.”). The number of peremptory challenges varies based on the type of case and offense at issue. See CIV. PROC. § 231.

94. See *infra* notes 96–98.

95. *Challenge*, BLACK’S LAW DICTIONARY (10th ed. 2014).

96. 476 U.S. 79, 89 (1986) (“[T]he Equal Protection Clause forbids the prosecutor to challenge potential jurors solely on account of their race or on the assumption that black jurors as a group will be unable [to] impartially consider the State’s case against a black defendant.”). Courts use a three-step approach when analyzing a *Batson* challenge. *Purkett v. Elem*, 514 U.S. 765, 767 (1995). First, did the party opposing a peremptory challenge show a prima facie case of discrimination? *Id.* If so, “the burden of production shifts to the proponent of the strike to come forward with a race-neutral explanation.” *Id.* If a race-neutral explanation is offered, the judge must decide whether the opponent of the strike proved there was purposeful racial discrimination. *Id.*; see also THOMAS A. MAUET, TRIAL TECHNIQUES 38–40 (Vicki Been et al. eds., 8th ed. 2010) (explaining peremptory challenges and how they are exercised). This has been extended to civil cases as well. *Edmonson v. Leesville Concrete Co.*, 500 U.S. 614, 631 (1991) (“The [*Batson*] approach applies in the civil context . . .”).

97. Cf. *Edmonson*, 500 U.S. at 622 (holding exclusion of a juror purely “on account of race, color, religion, sex, national origin, or economic status” is impermissible).

B. *Big Data*<sup>98</sup>

New technologies have altered the practice of law, and Big Data will be no exception.<sup>99</sup> The amount of data being generated today is growing exponentially, with no signs of slowing.<sup>100</sup> Today, the primary type of data generated is unstructured data.<sup>101</sup> Unstructured data includes information that, according to the General Manager of Big Data Solutions for Intel,<sup>102</sup> is “coming in from a wide variety of sources using different protocols and translations, which doesn’t naturally mean a whole lot in the context of other sources of information.”<sup>103</sup> This unstructured data is known as Big Data.<sup>104</sup>

Big Data and Big Data analytics are technologies resulting from the development of the Internet, mobile devices, and other technologies that caused a fundamental change in the nature of data.<sup>105</sup> “No longer centralized, highly structured and easily manageable,” data has shifted in three ways: volume, variety, and velocity.<sup>106</sup> First, the volume, or amount, of data created is increasing exponentially each year.<sup>107</sup> In 2012, there were 2.7 zettabytes of data, or 1000<sup>7</sup> bytes, in the digital universe.<sup>108</sup> This is the equivalent of every person in the United States tweeting three times per minute for 26,976 years or more than two hundred billion high-definition movies.<sup>109</sup> Second, the variety, or type, of data is in a state of change as

98. Big Data encompasses a much larger spectrum than discussed here. The relevant aspects of Big Data introduced here provide a foundation to the extent necessary for lawyers and the legal community in the twenty-first century.

99. Some attorneys and litigators already note that “lawyer[s] will need to understand the basics of [B]ig [D]ata so that [they] can advise clients about new technology and comply with ethical obligations.” Walton, *supra* note 47.

100. Poeter, *supra* note 4.

101. See *supra* notes 4–6 and accompanying text.

102. Ron Kasabian’s Profile, INTEL, <https://communities.intel.com/people/rkasabian> (last visited Oct. 11, 2015). This is Intel’s Big Data project group. See *id.*

103. See *supra* note 6 and accompanying text. Traditionally, it has been difficult to find correlations between pieces of information derived from social media and all of the other forms of unstructured data. Poeter, *supra* note 4.

104. Kelly, *supra* note 6.

105. *Id.*

106. *Id.*

107. *Id.*

108. *The GovLab Index: The Data Universe*, GOVLAB (August 22, 2013), <http://thegovlab.org/govlab-index-the-digital-universe/>.

109. *A Comprehensive List of Big Data Statistics*, WIKIBON BLOG (Aug. 1, 2012), <http://wikibon.org/>



well.<sup>110</sup> Unlike before, the data produced today is often unstructured or semi-structured data.<sup>111</sup> Unstructured data can be text-based data, while semi-structured data includes social media or location-based data.<sup>112</sup> Third, the velocity, or speed, of data creation is accelerating.<sup>113</sup> As a result of this acceleration, there is an increased need in certain industries for real-time analytics of the data in order to derive value and meaning.<sup>114</sup>

Big Data analytics refers to “the ability to correlate all these types of information coming in to create insight into what it means.”<sup>115</sup> First coined in 1997,<sup>116</sup> Big Data analytics evaluates and mashes multiple sets of unstructured data together to create meaningful correlations that can provide insight into the unstructured data.<sup>117</sup> By gathering data from a wide variety of sources, organizations can “uncover patterns and connections that might otherwise be invisible” and gain “insights about the [individuals] who created [the data].”<sup>118</sup> This allows organizations to predict the future actions and behaviors of the people who created the data.<sup>119</sup> As a result,

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blog/big-data-statistics/.

110. Kelly, *supra* note 6. Unstructured data includes a wide variety of non-text based data, such as social media posts and metadata. *See supra* note 6 and accompanying text.

111. Kelly, *supra* note 6.

112. *Id.*

113. *Id.*

114. *Id.* For example, Intel’s work on improving information for physicians treating Parkinson’s disease requires more real-time information so that decisions on an individual patient’s treatment can be quickly modified. *See infra* notes 125–26 and accompanying text.

115. Poeter, *supra* note 4. This specific process is also known as data mining, which is “the process of revealing unexpected relationships in data.” BRUCE RATNER, STATISTICAL AND MACHINE-LEARNING DATA MINING: TECHNIQUES FOR BETTER PREDICTIVE MODELING AND ANALYSIS OF BIG DATA 21 (2d ed. 2012).

116. *See* Gil Press, *A Very Short History of Big Data*, FORBES (May 9, 2013, 9:45 AM), <http://www.forbes.com/sites/gilpress/2013/05/09/a-very-short-history-of-big-data/>. The term was first used in an article published in October of 1997 when referring to “data sets [that] do not fit in main memory.” Michael Cox & David Ellsworth, *Application-Controlled Demand Paging for Out-of-Core Visualization*, NASA ADVANCED SUPERCOMPUTING DIVISION 1 (July 2009), <https://www.nas.nasa.gov/assets/pdf/techreports/1997/nas-97-010.pdf>.

117. Kelly, *supra* note 6.

118. *Big Data Analytics*, TECHOPEDIA, <http://www.techopedia.com/definition/28659/big-data-analytics> (last visited Oct. 6, 2015).

119. *Id.* Big Data analytics effectively predicts future actions or events based on current or past events and actions. Ian Kerr & Jessica Earle, Symposium, *Prediction, Preemption, Presumption: How Big Data Threatens Big Picture Privacy*, 66 STAN. L. REV. ONLINE 65, 66–67 (2013). A simplistic example would be allowing iTunes Genius to anticipate which songs an individual would

organizations “may be able to gain an edge over their rivals and make superior . . . decisions.”<sup>120</sup>

### 1. Applications of Big Data Today

A wide-variety of industries use Big Data and Big Data analytics today.<sup>121</sup> Technology companies, such as Intel Corporation, use Big Data analytics to find cures for some of the most mysterious diseases.<sup>122</sup> Intel is in the process of developing a record-keeping application on a watch that obtains accurate data that doctors and scientists can use for Parkinson’s research and treatment, such as the effect of different medicines on a patient.<sup>123</sup> These “watches [allow for] more than 300 data points to be recorded every second, translating to one gigabyte of data per patient a day.”<sup>124</sup> According to the General Manager of Big Data Solutions at Intel:

[R]esearchers are dying for the insight. The ability to see what is happening to the patient on a minute-by-minute, 24 hours a day, 365 days a year basis—the tremors, the sleep habits—to see that in real time will be one of the most eye-opening opportunities.<sup>125</sup>

This new technology will aid in clinical decision-making and help people

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like or Amazon’s recommendation system to predict which books an individual would want to purchase. *Id.* at 67.

120. *Big Data Analytics*, *supra* note 118. Organizations utilizing Big Data analytics may gain an edge over competitors who do not use Big Data analytics because traditional systems are unable to analyze as much data and information. *Id.* Without the fuller picture that Big Data provides, organizations are unable to make the best business decisions. *Id.*

121. *See infra* notes 122–38 and accompanying text. Big Data has been discussed within the legal context; however, these discussions have generally been limited to the impact of Big Data on privacy and the legal implications associated with it, not how Big Data may be used within the legal community. *See, e.g.*, Richards & King, *supra* note 72, at 393 (discussing the impact of Big Data on privacy).

122. Leo Kelion, *Michael J Fox Foundation Tests Sensors to Track Parkinson’s*, BBC NEWS (Aug. 13, 2014, 1:46 PM), <http://www.bbc.com/news/technology-28776282>. Intel is currently using Big Data to help treat and find the cure to Parkinson’s disease. *Id.* The exact cause of Parkinson’s is unknown, but the belief is that the disease is “brought on by a mixture of genetic and environmental factors.” *Id.*

123. *Id.*

124. *Id.* The hope for Intel and other organizations is that this information can be used as a foundation for curing, diagnosing, and treating Parkinson’s disease. *Id.*

125. *Id.*

with Parkinson's to get the right treatment.<sup>126</sup>

Another area where Big Data analytics is making an impact is in advertising.<sup>127</sup> Companies and advertisement agencies are using Big Data to customize and personalize advertising to certain groups, such as new parents.<sup>128</sup> One example, highlighted by the *New York Times*, is the use of Big Data by Target Corporation.<sup>129</sup> Customers change their shopping habits during major life events, and Target used Big Data analytics to create an algorithm that predicts when female shoppers are approaching their due dates based on shopping trends obtained from women currently on Target's baby shower registry.<sup>130</sup> After garnering enough data, Target applied this program to every average female shopper in its national database.<sup>131</sup> Target tailored coupons and advertisements to women it thought were pregnant, including advertisements for cribs and baby clothes.<sup>132</sup>

126. *Id.* This technology will aid in clinical decision-making because it will allow doctors to tailor treatments to each patient. *Id.* Parkinson's patients alternate between "on-off" periods, where the medication is working and the patient is able to function versus when the patient is unable to function. *Id.* With the use of Big Data analytics, clinicians and physicians will be able to better gauge whether each patient is receiving "the optimal dose [of medication] to be able to get [a patient] the right amount of on-off time during the day." *Id.*

127. Eric Hazan & Francesco Banfi, *Leveraging Big Data to Optimize Digital Marketing*, MCKINSEY & CO. (Aug. 2013), [http://www.mckinsey.com/client\\_service/marketing\\_and\\_sales/latest\\_thinking/leveraging\\_big\\_data\\_to\\_optimize\\_digital\\_marketing](http://www.mckinsey.com/client_service/marketing_and_sales/latest_thinking/leveraging_big_data_to_optimize_digital_marketing). One example is the ability to use Big Data to customize digital advertising based on an individual's search history. *Id.*

128. Charles Duhigg, *How Companies Learn Your Secrets*, N.Y. TIMES (Feb. 16, 2012), [http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=all&\\_r=0](http://www.nytimes.com/2012/02/19/magazine/shopping-habits.html?pagewanted=all&_r=0).

129. *Id.*

130. For example, Target noted that "women on [Target's] baby registry were buying larger quantities of unscented lotion around the beginning of their second trimester" and around the "first [twenty] weeks, pregnant women loaded up on supplements like calcium, magnesium and zinc." *Id.*

131. *Id.* This is a traditional data mining technique used to "predict the buying habits of clusters of customers." Salvatore Parise, Bala Iyer & Dan Vesset, *Four Strategies to Capture and Create Value from Big Data*, IVEY BUS. J. (July/Aug. 2012), [http://iveybusinessjournal.com/topics/strategy/four-strategies-to-capture-and-create-value-from-big-data#.VM2qBYrF\\_pD](http://iveybusinessjournal.com/topics/strategy/four-strategies-to-capture-and-create-value-from-big-data#.VM2qBYrF_pD).

132. Duhigg, *supra* note 128. A year into this program, a man walked into a Target and demanded to see the manager. *Id.* He was holding coupons for baby clothes and cribs that had been sent to his high school daughter and accused Target of "encourag[ing] her to get pregnant." *Id.* The manager, realizing that the coupons were, in fact, addressed to the daughter, apologized profusely for sending the coupons. *Id.* But true to the predictive power of Target's Big Data program, the daughter was pregnant, and Target knew before her family did. *Id.* The father later apologized over the phone, acknowledging there are "some activities in [his] house [that he hasn't] been completely aware of." *Id.* This speaks to the ability of Big Data to analyze "behavioral data about people" and make accurate predictions. Julie E. Cohen, Symposium, *What Privacy Is for*, 126 HARV. L. REV. 1904, 1921 (2013).

A final industry where Big Data has made an impact is traffic management and control.<sup>133</sup> First, governments are using electronic toll systems to establish differentiated payments based on the current congestion in various areas.<sup>134</sup> Second, urban planners are using cell phone location information to make decisions regarding mass transit construction and traffic congestion.<sup>135</sup> Urban planners use personal location data to determine “peak and off-peak traffic hotspots, volumes and patterns of transit use, and shopping trends,” which can “cut congestion and the emission of pollutants.”<sup>136</sup> Individual drivers, in turn, “benefit from smart routing based on real-time traffic information, including accident reports and information about scheduled roadwork and congested areas.”<sup>137</sup>

Multiple industries are already using Big Data to change how individuals, corporations, and governments interact with each other and the world.<sup>138</sup> However, as with any new technology, Big Data’s role in society is developing and evolving.<sup>139</sup> Another theme associated with new technology is its impact on an individual’s right to privacy.<sup>140</sup> Big Data is no exception, especially because Big Data uses past events, behavior, relationships, and actions to predict future behavior and events.<sup>141</sup>

## 2. Privacy Concerns with Big Data

Big Data encounters many of the privacy concerns that other forms of technology have encountered.<sup>142</sup> There are two major privacy concerns with

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133. Omer Tene & Jules Polonetsky, *Big Data for All: Privacy and User Control in the Age of Analytics*, 11 NW. J. TECH. & INTELL. PROP. 239, 248 (2013).

134. *Id.* In certain parts of Europe, varying prices are applied to drivers based on what vehicles or roads they use. *Id.* at 248 & n.48.

135. Carlo Ratti et al., *Mobile Landscapes: Using Location Data from Cell Phones for Urban Analysis*, 33 ENV’T & PLANNING B: PLANNING & DESIGN 727, 745 (2006), <http://epb.sagepub.com/content/33/5/727.full.pdf+html>.

136. JAMES MANYIKA ET AL., MCKINSEY GLOBAL INST., *BIG DATA: THE NEXT FRONTIER FOR INNOVATION, COMPETITION, AND PRODUCTIVITY* (May 2011), [http://www.mckinsey.com/insights/business\\_technology/big\\_data\\_the\\_next\\_frontier\\_for\\_innovation](http://www.mckinsey.com/insights/business_technology/big_data_the_next_frontier_for_innovation).

137. Tene & Polonetsky, *supra* note 133, at 248.

138. *See supra* notes 122–37 and accompanying text.

139. Poeter, *supra* note 4.

140. *See supra* notes 72–74 and accompanying text.

141. Kerr & Earle, *supra* note 119, at 66–67.

142. *See supra* notes 72–74 and accompanying text.

Big Data.<sup>143</sup> First, scholars note a potential conflict between “Big [D]ata’s predictive tool kit” and our “fundamental legal tenets such as privacy and due process.”<sup>144</sup> Big Data and “[p]redictive analysis [are] particularly problematic when based on sensitive categories of data, such as health, race, or sexuality.”<sup>145</sup> Similar to the science fiction film *Minority Report*,<sup>146</sup> governments or corporations can use Big Data and predictive analytics to preempt an individual’s actions or behaviors based on that individual’s previous actions.<sup>147</sup> Rather than allowing an individual to actually act, opponents of Big Data note that governments use “preemptive predictions” to preclude individuals from acting based on what a Big Data model predicts will happen.<sup>148</sup> This undermines procedural safeguards, such as due process and presumptions of innocence.<sup>149</sup>

Second, critics express concern with Big Data’s ability to aggregate an individual’s information to create a fuller understanding of that individual.<sup>150</sup> As illustrated in the Target story previously mentioned,<sup>151</sup> there is concern about “the analysis of apparently innocuous data [that] may create new sensitive facts about an individual.”<sup>152</sup> Big Data makes the aggregation of

143. See Kerr & Earle, *supra* note 119, at 66.

144. *Id.* These authors notably express concern about Big Data’s role of using preemptive predictions or using past actions to predict to avoid risk under the guise of “duty to prevent.” *Id.* at 68–70.

145. Tene & Polonetsky, *supra* note 133, at 253.

146. See MINORITY REPORT (Twentieth Century Fox Film Corporation 2002). In *Minority Report*, individuals were apprehended for crimes before they could even commit the crimes. *Id.*

147. See Kerr & Earle, *supra* note 119, at 66–68.

148. *Id.* at 67. An example of this is placing individuals or groups on no-fly lists in order to prevent possible terrorist activity. *Id.*

149. *Id.* at 66. By preventing individuals in certain situations from acting, those individuals are essentially deprived of their right to due process because they are not provided any notice and there is no transparency or accountability. *Id.* at 69. And similar to *Minority Report*, critics allege that individuals may lose their presumption of innocence because “criminals” may be apprehended prior to any actual misdeed. Tene & Polonetsky, *supra* note 133, at 253.

150. Weinstein, *supra* note 44, at 35–36.

151. See *supra* notes 130–33 and accompanying text.

152. Tene & Polonetsky, *supra* note 133, at 256. Another example illustrating the accumulation of personal data is how a researcher can draw entirely different conclusions from a set of online searches of “paris,” “hilton,” and “louvre” compared to a search of “paris,” “hilton,” and “nicky.” *Id.* at 251. Another prominent form of information aggregation is Amazon’s “Customers Who Bought This Also Bought” recommendation feature, which is a filtering tool used by Amazon that records the items that previous consumers purchased together in order to suggest what a current consumer should also purchase based on the current consumer’s search and purchase history. See *id.* at 249.

information easier, which scholars and the general public have expressed deep concern about.<sup>153</sup> However, the concern about a loss of privacy due to Big Data turns on the definition of privacy.<sup>154</sup> While it is true that it is increasingly difficult for an individual to keep information secret from the world, this does not automatically implicate a violation of an individual's constitutional right to privacy.<sup>155</sup> Privacy is not merely about how much information is secret, "but rather about what rules are in place (legal, social, or otherwise) to govern the use of information as well as its disclosure."<sup>156</sup> Thus, while there may be facial privacy concerns about Big Data, the reality is that concerns about the constitutional right to privacy are limited, and statutory amendments can counter these concerns.<sup>157</sup>

### III. AMENDING CALIFORNIA CIVIL PROCEDURE CODE SECTION 230 IN LIGHT OF BIG DATA

There are multiple options for protecting privacy while preserving the benefits of Big Data,<sup>158</sup> but this Comment advocates for an amendment to California's Civil Procedure Code. This amendment would alter challenges for cause in order to balance the positives and negatives associated with the increasing the use of Big Data in the legal community.<sup>159</sup> California's

153. Solove, *supra* note 73, at 506–07 ("A piece of information here or there is not very telling. But when combined together, bits and pieces of data begin to form a portrait of a person. The whole becomes greater than the parts."); Greenwald et al., *supra* note 71 (reporting the NSA's extensive surveillance tactics).

154. Richards & King, *supra* note 72, at 410.

155. *Id.* Privacy is more than keeping one's information secret; privacy is also concerned with how one's information is used once obtained. *Id.*; see HELEN NISSENBAUM, *PRIVACY IN CONTEXT: TECHNOLOGY, POLICY, AND THE INTEGRITY OF SOCIAL LIFE* 1–2 (2009).

156. Richards & King, *supra* note 72, at 411.

157. *See infra* Part IV.

158. Other possible options include amending Rule 3.5 of the Model Rules of Professional Conduct or limiting the type of information that may be accessed during pretrial research. *See* MODEL RULES OF PROF'L CONDUCT R. 3.5 (AM. BAR ASS'N 2014) (prohibiting certain interactions between advocates and either judges or jurors). However, these alternative solutions go beyond the scope of this Comment.

159. The statutory rules surrounding challenges for cause differ in various states. *Compare* CAL. CIV. PROC. CODE § 227 (West 2012) (challenge for cause based on general disqualification, implied bias, or actual bias), *with* N.Y. CRIM. PROC. LAW § 270.20 (McKinney 2014) (challenge for cause based on disqualification, state of mind, relation to defendant, witness, or previous service on the grand jury that issued the indictment). Other scholars have discussed the possibility of using Big Data to mold their arguments in real time, similar to political candidates. Walton, *supra* note 47. However, no scholar has noted how this would be done in practice. *See id.* (failing to clarify how

current statutory scheme for challenges for-cause states that:

The challenges of either party for cause need not all be taken at once, but they may be taken separately, in the following order . . . :

- (a) To the panel.
- (b) To an individual juror, for a general disqualification.
- (c) To an individual juror, for an implied bias.
- (d) To an individual juror, for an actual bias.<sup>160</sup>

Once a party brings a challenge for cause, the trial judge has discretion to determine whether to excuse a juror for cause.<sup>161</sup> Specifically, section 230 states that “[c]hallenges for cause shall be tried by the court. The juror challenged and any other person may be examined as a witness in the trial of the challenge, and shall truthfully answer all questions propounded to them.”<sup>162</sup>

In order to preserve the integrity of the jury selection process and maintain a juror’s privacy while ensuring that the benefits of Big Data in trial preparation are protected,<sup>163</sup> California Civil Procedure Code section 230 should be amended to state:

Challenges for cause shall be tried by the court. The juror challenged and any other person may be examined as a witness in the trial of the challenge, and shall truthfully answer all questions propounded to them. *Challenges for cause shall not be granted by the court unless the challenging party proves a potential juror is disqualified under section 227 during voir dire and trial of the*

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Big Data could be implemented to mold trial court strategy and argument in real time).

160. CIV. PROC. § 227.

161. *Id.* § 230; *People v. Ledesma*, 140 P.3d 657, 680 (Cal. 2006) (“The trial court refused to accept the stipulation [of challenge for cause], stating that the juror was qualified . . . . ‘[A]ssessing the qualifications of jurors challenged for cause is a matter falling within the broad discretion of the trial court.’” (quoting *People v. Weaver*, 29 P.3d 103, 106 (Cal. 2001))).

162. CIV. PROC. § 230.

163. *See infra* Part IV.

*challenge*.<sup>164</sup>

This amendment to section 230 limits the scope of challenges for cause.<sup>165</sup> In order to dismiss a juror for cause, the challenging party must prove bias.<sup>166</sup> Specifically, the court can only sustain a challenge if the challenging party proves during voir dire, after examination by the court, that a juror has actual bias, implied bias, or a general disqualification.<sup>167</sup> The current statute does not require proof during voir dire.<sup>168</sup> Section 230's amendment also limits the discretion of the court to bias or general disqualification that the attorneys prove in court. This is similar to statutes in other states, where the party challenging a particular juror must show evidence supporting the challenge.<sup>169</sup>

Additionally, the amendment to section 230 is relevant because California appellate courts apply a deferential abuse of discretion standard of review when reviewing whether a trial court judge erred in denying or

164. The italicized text is the suggested amended text. It is based on Colorado's Revised Statute that requires evidence showing that a potential juror is, in fact, disqualified under the various subcategories of challenges for cause. See COLO. REV. STAT. § 16-10-103 (1998); see also *infra* note 169.

165. See *supra* notes 163–64.

166. This change is limited to challenges for cause. A similar change is not necessary for peremptory challenges because they are inherently limited. A peremptory challenge cannot be raised on the basis of a prospective juror's "race, color, religion, sex, national origin, sexual orientation, or similar grounds." CIV. PROC. § 231.5.

167. See *supra* note 166 and accompanying text.

168. See CIV. PROC. § 230.

169. See COLO. REV. STAT. § 16-10-103 (1998). In a challenge for cause, the Colorado Revised Statute specifically states that:

[N]o person summoned as a juror shall be disqualified . . . if the court is satisfied, from the examination of the juror or from other evidence, that he will render an impartial verdict according to the law and the evidence submitted to the jury . . . .

. . . .

If either party desires to introduce evidence of the incompetency, disqualification, or prejudice of any prospective juror who upon the voir dire examination appears to be qualified, competent, and unprejudiced, such evidence shall be heard, and the competency of the juror shall be determined, by the court, out of the presence of the other jurors, but this action cannot be taken after the jury has been sworn to try the case except upon a motion for mistrial.

*Id.* § 16-10-103(1)(j), (3).



granting a challenge for cause.<sup>170</sup> This renders the amendment more important because there is currently a high level of discretion afforded to the trial court when reviewing a party's challenge for cause without any proof in court.<sup>171</sup> Section 230's amendment is particularly relevant for challenges for actual bias<sup>172</sup> because the California Civil Procedure Code does not have any statutory requirements for actual bias, other than the requisite "state of mind on the part of the juror in reference to the case . . . which will prevent the juror from acting with entire impartiality."<sup>173</sup>

This recommended change to section 230 creates an explicit statutory requirement that the challenging party supports the challenge with evidence in court, rather than allowing the trial court continued broad discretion in granting a challenge for cause.<sup>174</sup> This, in turn, will preserve the individual jurors' privacy and rights while also preserving the benefits of Big Data in the legal community.<sup>175</sup>

#### IV. AMENDING SECTION 230 MAINTAINS THE BENEFITS OF BIG DATA WHILE PREVENTING AN EXCESSIVE VIOLATION OF INDIVIDUAL JURORS' RIGHT TO PRIVACY

Big Data and its uses for the legal community fall within the scope of comment 8 to Rule 1.1 of the Model Rules.<sup>176</sup> The amendment to section

170. *People v. Wilson*, 187 P.3d 1041, 1055 (Cal. 2008) ("[T]he court did not abuse its discretion . . . by excusing [the prospective juror] for cause."). Abuse of discretion is a more deferential standard of review that requires that the decision was grossly, or clearly, erroneous. *See, e.g., Cooter & Gell v. Hartmarx Corp.*, 496 U.S. 384, 405 (1990) (noting that a district court "abuse[s] its discretion if it based its ruling . . . on a clearly erroneous assessment of the evidence").

171. *People v. Ledesma*, 140 P.3d 657, 680 (Cal. 2006) (holding challenges for cause fall within the discretion of the trial court).

172. Challenge for cause based on actual bias does not specify how actual bias may be determined, whereas the California Civil Procedure Code specifically states how challenges for cause for implied bias and for general disqualification may be met. *Compare* CIV. PROC. § 225(b)(1)(C) (stating ambiguously that actual bias is "a state of mind on the part of the juror . . . which will prevent the juror from acting with entire impartiality"), *with* CIV. PROC. § 228 (explaining specifically how an individual may be generally disqualified), *and* CIV. PROC. § 229 ("A challenge for implied bias may be taken for one or more of the . . . [eight] causes [enumerated here], and for no other.").

173. CIV. PROC. § 225(b)(1)(C). A challenge for cause based on a juror's implied bias is limited by statute to the codified causes in section 229. *Id.* § 229; *see supra* note 85 and accompanying text.

174. *Ledesma*, 140 P.3d at 680 (noting the broad discretion given to the court).

175. *See infra* Part IV.

176. Lawyers must "keep abreast of changes in the law and its practice, including the benefits and

230 of California's Civil Procedure Code requires a party to prove in court that the court should sustain a challenge.<sup>177</sup> Amending section 230 to limit the scope of challenges best balances the protection of an individual juror's right to privacy while maintaining the benefits of Big Data in the trial preparation process.<sup>178</sup>

Big Data can, and will, have a great impact on the legal profession.<sup>179</sup> This ranges from decreased costs to more equality in litigation.<sup>180</sup> Big Data could particularly impact trial preparation and jury selection.<sup>181</sup> But a constant concern with any type of new technology is the impact it may have on an individual's right to privacy.<sup>182</sup> Big Data is no exception, especially since Big Data works by combing through huge sets of information, aggregating the information, and making individualized predictions and correlations based on the information.<sup>183</sup> Thus, the proposed amendment to section 230 lays a strong foundation to ensure the proper integration of new technology, such as Big Data, with the traditional legal processes, such as trial preparation and jury selection.<sup>184</sup>

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risks associated with relevant technology," which today includes the benefits, risks, and uses of Big Data for the modern lawyer. MODEL RULES OF PROF'L CONDUCT R. 1.1 cmt. 8 (AM. BAR ASS'N 2014). Additionally, a lawyer has a duty to act as a zealous advocate for the client. *Id.* R. 1.3 cmt. 1. Thus, the Model Rules of Professional Conduct create an ethical obligation to make use of easily accessible technology. *See* Redgrave & Stover, *supra* note 48, at 218.

177. *See supra* notes 164–67 and accompanying text.

178. Weinstein, *supra* note 44, at 5, 17 (discussing the need to balance the benefits and damages caused by the "intrusion" into a potential juror's private information).

179. Walton, *supra* note 47 (discussing the various impacts Big Data has already had on the legal profession).

180. *See id.*

181. *Id.* Big Data's predictive models can help anticipate behavior to create "knowledge [that] will be used in jury selection." Ken Lopez, *The Litigation Consulting Report*, A2L CONSULTING (May 20, 2013, 10:00 AM), <http://www.a2lc.com/blog/bid/65053/13-Revolutionary-Changes-in-Jury-Consulting-Trial-Consulting>.

182. *See generally* Orin S. Kerr, *The Fourth Amendment and New Technologies: Constitutional Myths and the Case for Caution*, 102 MICH. L. REV. 801, 808 (2004) (discussing how developing technology, such as infrared scanners, continually causes a re-evaluation of what is a "reasonable expectation of privacy").

183. Poeter, *supra* note 4.

184. *See* Walton, *supra* note 47.

A. *An Amendment to Section 230 Preserves the Benefits of Big Data in Trial Preparation*

Amending section 230 neither prohibits the use of Big Data during trial preparation and jury selection nor limits Big Data's usefulness.<sup>185</sup> Specifically, even with the amendment to section 230, Big Data and similar technology can still determine the relevant community values for a particular region and case,<sup>186</sup> which juror traits are positive versus negative for a particular case or party,<sup>187</sup> and which specific jurors should and should not be selected.<sup>188</sup>

1. *Amending Section 230 Still Allows Litigants to Use Big Data to Determine Community Values and Beliefs*

Even with the amendment to section 230, attorneys and trial consultants can utilize Big Data as an alternative method to supplement traditional quantitative research on community values and beliefs.<sup>189</sup> One of the major tasks of a trial consultant in pretrial research and trial preparation is to conduct quantitative research to determine a specific community's values and beliefs.<sup>190</sup> Communities and sub-communities hold different beliefs and values, which a community forms based on various factors.<sup>191</sup> Values differ between communities, which affects how parties select jurors in different communities and cases.<sup>192</sup> For example, Marshall, Texas, a town of 24,000

185. *See infra* Part IV.A.1–3; *see also* Walton, *supra* note 47 (noting that Big Data can impact litigation strategy and jury selection).

186. *See infra* Part IV.A.1.

187. *See infra* Part IV.A.2.

188. *See infra* Part IV.A.3. However, the amendment to section 230 does create a limitation on how this information may be used because jurors may only be excluded if the challenging party proves bias or disqualification in court. *See infra* notes 229–32.

189. *See infra* note 190 and accompanying text.

190. Becker, *supra* note 37, at 427 (“The primary type of quantitative research is the ‘community attitude survey’ which involves phoning more than 400 individuals in the trial venue and asking them carefully crafted questions with the goal of identifying those attitudes, experiences and beliefs which will oppose or embrace the key elements of [the] case.”).

191. For example, the residents of Marshall, Texas greatly value property ownership and property rights because they are located next to massive oil reservoirs that have resulted in royalty battles against oil corporations. Loren Steffy, *Patently Unfair*, TEXASMONTHLY (Oct. 2014), <http://www.texasmonthly.com/story/patent-law-in-marshall-texas?fullpage=1>.

192. Covington, *supra* note 40, at 592–93 (noting that community attitude surveys must be done in the community from which the jury will be drawn in order to determine which traits an ideal juror

people, has handed out billions of dollars in high-tech patent awards in the past decade alone.<sup>193</sup> Parties will look for certain juror traits in a patent case in Marshall, Texas that it may not look for in a region with a less favorable view on patent litigation.<sup>194</sup> Traditionally, determining these initial community attitudes and values required representative community value surveys by trial consultants,<sup>195</sup> but Big Data is changing the way parties and trial consultants research prospective jurors.

Rather than relying only on telephone surveys, Big Data provides an additional way to obtain information about a community's values and beliefs through aggregating information about a community.<sup>196</sup> Parties can do this through decision science, or "crowdsourcing."<sup>197</sup> An amendment to section 230 would not prevent the use of Big Data to help determine community values because the amendment to section 230 only affects challenges to individual jurors during the actual jury selection stage.<sup>198</sup> It does not affect a party's ability to determine community values in the region where a case will be held.<sup>199</sup> By focusing on social media-based Big Data analytics,

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in a particular case and area should have). Trial consultants and attorneys can also use community attitude surveys to support change of venue motions, challenges to the jury pool, or motions for additional time for voir dire. BERGER ET AL., *supra* note 39, at 174.

193. Steffy, *supra* note 191. While only twenty percent of the town's adult population holds a bachelor's degree, this town has become a popular venue for patent litigation because "the locals have grown up on the edge of one of the world's richest oil reservoirs, and royalty battles with oil companies have created a strong sense of property rights, whether they relate to patents or minerals." *Id.*

194. See Covington, *supra* note 40, at 593.

195. CATHY E. BENNETT & ROBERT B. HIRSCHHORN, BENNETT'S GUIDE TO JURY SELECTION AND TRIAL DYNAMICS IN CIVIL AND CRIMINAL LITIGATION 77 (Eda Gordon ed., 1993). These community surveys consist of "survey questions asked over the telephone of those in the same community as the jurors. From these surveys, [trial consultants or attorneys] purport to be able to determine what type of juror will be favorable for a litigant." Redgrave & Stover, *supra* note 48, at 213. However, this is dependent on the case, time, and economic constraints on an individual case. BERGER ET AL., *supra* note 39, at 178 ("Depending on the importance of the case and time and economic constraints, [attorneys] may consider employing a jury consultant, psychologist, or other expert specializing in jury selection . . .").

196. See Parise et al., *supra* note 131.

197. *Id.* Decision science involves using experiments and analysis of data to more accurately understand decision-making. *Id.* Decision science-based Big Data allows organizations to use "[B]ig [D]ata as a way to conduct 'field research,'" allowing organizations and individuals to apply Big Data analytics to social media sites like Facebook and Twitter to derive meaning and understanding. *Id.*

198. See *supra* notes 166–68 and accompanying text.

199. See *supra* notes 164–68 and accompanying text.

parties can use decision science independently or in conjunction with traditional community surveys to measure the values of a particular community.<sup>200</sup> This, in turn, can help shape and frame which traits an ideal, or antithetical, juror will have.<sup>201</sup>

## 2. Amending Section 230 Still Allows Litigants to Determine What Particular Traits are Desirable in the “Ideal” Juror

The amendment to section 230 and challenges for cause will also not limit the ability of various litigants to use Big Data to determine the particular traits of an ideal or problematic juror in a particular case or jurisdiction.<sup>202</sup> As the traditional notion states, you would only want a wealthy man on an antitrust case;<sup>203</sup> however, this notion is challenged by the rise of Big Data, which can expand the scope of what traits each side should look for in an ideal juror without implicating any individual privacy concerns.<sup>204</sup>

Once the parties determine a community’s attitudes and values, lawyers must determine what qualities and traits are desirable in jurors within that community.<sup>205</sup> Lawyers combine these qualities and traits into “Bad Juror” or “Good Juror” profiles to create mythical jurors.<sup>206</sup> These profiles are

200. See Parise et al., *supra* note 131; see also Lopez, *supra* note 181.

201. See *infra* Part IV.A.2. It also can help a litigant tailor a case to fit a more complete understanding of the community’s belief structure. See Redgrave & Stover, *supra* note 48, at 213.

202. See *infra* notes 203–13 and accompanying text.

203. Hoskins, *supra* note 1, at 1105.

204. Parise et al., *supra* note 131 (stating how applying Big Data to social media-based information can derive meaning and understanding). This greater understanding about a community can be used in the same manner as, or in conjunction with, traditional community surveys that serve as a foundation for what types of juror traits or characteristics are highly desirable to a particular party’s case. Cf. LUBET, *supra* note 42, at 411–12 (“Jury consultants . . . prepare extensive ‘scoring’ systems that assign positive and negative point values to each listed characteristic . . . . When well-devised through sophisticated survey instruments and demographic data, these systems may be quite accurate.”).

205. Trial consultants and attorneys must carefully frame questions to determine what the values and beliefs of the community are, which Big Data can assist with by analyzing information that is not necessarily easy to analyze, interpret, or draw comparisons to. Covington, *supra* note 40, at 593; see *supra* notes 189–97 and accompanying text (explaining how Big Data can supplement traditional community surveys by trial consultants). One of the objectives of a community attitude survey is to determine the traits of an ideal juror and, more importantly, what types of individuals will not directly oppose a particular party’s case. Covington, *supra* note 40, at 593.

206. BERGER ET AL., *supra* note 39, at 178, 181.

checklists of what potential traits to look for.<sup>207</sup> This is important because the jury selection process calls for quick decision making after the conclusion of voir dire<sup>208</sup> and research has found that traditional community surveys, if sufficiently elaborate, can be very accurate.<sup>209</sup> When Big Data supplements a community values and beliefs survey, more information about a juror's community is available to the parties.<sup>210</sup> This increase in information, in turn, provides parties with more information about what traits are beneficial.<sup>211</sup>

All of this is still permissible under an amended section 230 because the amendment merely bans a potential juror's removal without any evidence in court of bias or general disqualification.<sup>212</sup> Here, Big Data is adding more data points to provide a better picture of an ideal juror instead of focusing on the traits and information about individual jurors.<sup>213</sup> Parties do not use or analyze individual juror information, so there are no concerns about rights to privacy.

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207. *Id.* These profiles are created traditionally by using community surveys in combination with “trial counsel [sitting] back and think[ing] about the characteristics of jurors that the lawyer wants and doesn’t want.” *Id.* at 177. The more information that is available about a particular community or demographic, the more accurate that these juror profiles will be. *See* LUBET, *supra* note 42, at 411–12.

208. LUBET, *supra* note 42, at 411.

209. *Id.* at 411–12.

210. Poeter, *supra* note 4 (“The big value of Big Data is the ability to correlate all [different] types of information coming in to create insight into what it means.”). This new information that Big Data is looking to analyze is information that does not naturally mean much in the context of other types of information and cannot be considered under a traditional analysis. *Id.*

211. *See supra* note 204 and accompanying text. As with other industries, the use of Big Data at this stage of pretrial research is beneficial because it provides the party utilizing Big Data analytics with more information, which allows the party to make more informed and superior decisions. *See Big Data Analytics, supra* note 118.

212. *See supra* notes 164–69 and accompanying text. This, likewise, does not violate any potential juror's privacy rights at this stage because the information is being used to create juror profiles based on the community values, rather than focusing on individual jurors at this stage. *See infra* note 287 and accompanying text.

213. *See supra* notes 202–13 and accompanying text. However, with the amendment to section 230, even using Big Data to evaluate individual jurors does not necessarily implicate privacy concerns. *See infra* Part IV.A.3–B.

### 3. Amending Section 230 Allows Litigants to Use Big Data to Determine Which Specific Jurors Are and Are Not Desirable, but Requires Them to Support the Decision in Court to Successfully Remove a Juror for Cause

An amendment to section 230 does not prohibit the use of Big Data to determine which individual potential jurors a party should select.<sup>214</sup> Section 230 sets the evidentiary standard that a party must meet to sustain a challenge for cause of a potential juror during jury selection.<sup>215</sup> As previously noted, many jurisdictions release the jury list prior to jury selection.<sup>216</sup> In these jurisdictions, individual juror research and evaluation can incorporate Big Data to obtain more data points and information about potential jurors and determine which jurors are best for each party.<sup>217</sup> The parties compare their ideal juror traits to the jury pool.<sup>218</sup> Big Data impacts the process of determining community values, which impacts the values of an ideal juror in a particular jurisdiction and case, which impacts whether a party should try to keep or remove an individual juror.<sup>219</sup> Thus, the amended statutory scheme still allows for attorneys to benefit from Big Data and determine which potential jurors the parties should try to keep or remove.<sup>220</sup>

Research shows that an individual's online presence can predict that individual's personality, and Big Data provides more data points on how to determine which individual jurors should or should not be selected.<sup>221</sup> Just

214. See *infra* notes 252–56.

215. The amendment states that “Challenges for cause shall not be granted by the court unless the challenging party proves a potential juror is disqualified under section 227 during voir dire and trial of the challenge.” See *supra* notes 164–69 and accompanying text.

216. See, e.g., *State v. Harbison*, 238 S.E.2d 449, 453 (N.C. 1977) (noting that the names of potential jurors in the case were disclosed to the various parties nearly eight weeks in advance).

217. See Walton, *supra* note 47. Big Data can build on already-existing research that can predict beliefs based on an individual's social media presence. See Golbeck et al., *supra* note 57, at 259–60.

218. BERGER ET AL., *supra* note 39, at 177 (“[A] juror profile can provide a point of reference against which to evaluate the mass of juror information that will be elicited: How well does this juror line up with what I’ve been looking for?”).

219. *Id.*; see *supra* notes 204–07 and accompanying text.

220. Since jurors can also be removed by peremptory challenges without cause, potential jurors can still be excused so long as the removal is not based on an impermissible reason, such as race, color, or gender. CAL. CIV. PROC. CODE §§ 226(b), 231.5 (West 2012). Juror privacy is not implicated in peremptory challenges because there is no need to publicly reveal why an individual is being dismissed in a peremptory challenge. *Id.* § 226(b) (“[N]o reason need be given for a peremptory challenge . . .”).

221. See Golbeck et al., *supra* note 57, at 258–59 (“[A] users’ . . . personality traits can be

as Big Data is providing insight into how certain individuals will act based on their shopping history, Big Data can assist litigators in predicting the behavior of potential jurors.<sup>222</sup> Litigators can use this when forming jury questions and preparing for voir dire.<sup>223</sup> Rather than relying on self-reported information from voir dire questioning, trial attorneys and parties will know more about the potential jurors during jury selection and the actual jurors selected based on “their publicly-available data.”<sup>224</sup> This is highly desirable information because all litigants want to have as much information about prospective jurors as possible.<sup>225</sup> Individualized predictions about, and identifying the views of, potential jurors is valuable to litigants because it provides a potentially strategic advantage.<sup>226</sup>

Big Data analytics is especially helpful for analyzing individual potential jurors or subgroups of potential jurors.<sup>227</sup> Big Data’s predictive analytics can forecast an individual’s behavior based on previous

predicted from the public information they share on Facebook.”); *see also* Lopez, *supra* note 181 (“We can actually predict [potential jurors’] behavior if we have enough data. This knowledge will be used in jury selection and to help move public opinion on various issues.”).

222. *See supra* notes 128–32 and accompanying text.

223. Lopez, *supra* note 181. Instead of just knowing the age, gender, and race of a particular juror, a litigant may learn a juror’s favorite books, interests, or causes to contribute to. Shaun B. Spencer, *The Surveillance Society and the Third-Party Privacy Problem*, 65 S.C. L. REV. 373, 391 (2013). All of this information is potentially relevant information for determining who should and should not be a juror.

224. Walton, *supra* note 47 (“Big [D]ata adds the possibility of having the ability to pull information about prospective jurors from their publicly-available data . . . . [T]rial lawyers in the near future might know a lot more about those twelve strangers sitting in the box.”). Public information, such as posts on Facebook and Twitter or reviews on Yelp, can be analyzed alongside traditional forms of publicly-available information to predict a juror’s behavior. *See* Parise et al., *supra* note 131. This information cannot provide the basis for a challenge for cause under the amended statutory scheme, but parties may use this information to either remove an individual with a peremptory challenge or guide the formation of the questions asked during voir dire. *See supra* notes 164–69 and accompanying text; *see also* Redgrave & Stover, *supra* note 48, at 215 (“This [Internet research] capability gives the trial lawyer a powerful new weapon to use during voir dire.”).

225. *United States v. McDade*, 929 F. Supp. 815, 817 (E.D. Pa. 1996) (“[W]hen it comes to prying into matters personal to a juror, the interests of counsel on either side of the aisle are not necessarily antagonistic. All the lawyers want to learn just about all they can about all the prospective jurors.”).

226. *See* Redgrave & Stover, *supra* note 48, at 214–16. This strategic advantage is primarily the ability to know what questions to ask during voir dire to show a juror’s actual bias and obtain a better understanding of the juror’s beliefs and biases. *Id.*

227. This is a specific subsection of Big Data, known as data exploration. Parise et al., *supra* note 131. In data exploration, the aggregated information of past actions, conduct, and data is used to experiment and obtain answers using predictive models to predict the individual’s future actions. *Id.*



preferences and decisions or other readily accessible past information.<sup>228</sup> Using Big Data, and specifically data exploration, to determine and predict how a potential juror may decide a case or be biased against one party could have been problematic under the previous statutory scheme because an individual could be susceptible to Big Data's preemptive predictions that would cause a potential juror to be removed based purely on predictions of future behavior.<sup>229</sup> However, the amendment to section 230 prevents courts from excusing potential jurors because of a prediction of bias without some evidence of bias in court.<sup>230</sup> The statutory change to section 230 would not ban the *use* of Big Data to predict how individual potential jurors may act or decide a case; it forces the parties to *support* their challenges for cause with in-court evidence.<sup>231</sup> Thus, attorneys and parties can still use Big Data to predict how potential jurors may decide a case, but the same parties must support such predictions in court through a showing of actual bias.<sup>232</sup> Big Data-based applications already exist that assist in pretrial research, behavior predictions, and juror analytics.<sup>233</sup>

Currently, there are multiple applications that help lawyers track information about prospective jurors.<sup>234</sup> One early example of this is software developed by CTS America.<sup>235</sup> CTS America's software, called

228. *Id.* This is also the approach that Target used to determine whether a woman was pregnant. *Id.*; see Duhigg, *supra* note 128.

229. Kerr & Earle, *supra* note 119, at 67–68 (noting that Big Data has the potential to preempt individuals without any notice or due process); see *supra* notes 144–49 and accompanying text.

230. This stands in contrast to the pure broad discretion standard that California courts currently employ. See *People v. Ledesma*, 140 P.3d 657, 680 (Cal. 2006) (“[A]ssessing the qualifications of jurors challenged for cause is a matter falling within the broad discretion of the trial court.”).

231. In part, the amended statute states that “[c]hallenges for cause shall not be granted by the court unless the challenging party proves a potential juror is disqualified under section 227 during voir dire and trial of the challenge.” See *supra* note 164 and accompanying text.

232. See *supra* notes 164–69 and accompanying text. However, Big Data, like other forms of technology, can assist attorneys in formulating useful questions for voir dire for specific potential jurors. See Redgrave & Stover, *supra* note 48, at 214.

233. See *infra* notes 234–47 and accompanying text.

234. See Walton, *supra* note 47; see also Dysart, *supra* note 4. There have been Internet articles written that evaluate the best applications for lawyers during jury selection. Brian Focht, *The 7 Best Jury Selection Apps . . .*, CYBER ADVOC. (Sept. 18, 2013), <http://www.thecyberadvocate.com/2013/09/18/9-best-jury-selection-apps/>. However, as this article notes, these applications are in a “[b]attle for [m]ediocrity” and there are not effective ways to use technology to streamline jury selection. *Id.* Many of these applications have been successful even though they do little to streamline the jury selection process. *Id.*

235. See Charles Nesson, *Peremptory Challenges: Technology Should Kill Them?*, 3 L.,

SmartJury, is a software program that “enables a lawyer [to] easily . . . organize, keep track of, participate in[,] and record the jury selection process.”<sup>236</sup> A person enters juror names into the software program that searches public databases for their information.<sup>237</sup> SmartJury evaluates the data<sup>238</sup> and assigns each juror a number based on the predicted response to certain cases.<sup>239</sup> This information provides the demographics of the jurors that a party should select and strike.<sup>240</sup> In January 2004, SmartJury cost \$995 per year.<sup>241</sup>

Another popular application for pretrial research is Lex Machina.<sup>242</sup> Lex Machina is a Northern California company that uses “Legal Analytics”<sup>243</sup> to obtain insight and information about judges, lawyers, parties, and patents for intellectual property litigation.<sup>244</sup> Rather than focusing on jury selection, Lex Machina focuses on using Big Data analytics to give users “strategic

PROBABILITY & RISK 1, 3 (2004).

236. *Id.*

237. *Id.*

238. There are twenty separate demographic factors that the *SmartJury* application considers, including: race, gender, age, income, marital status, occupation, union affiliation, religion, church attendance, political party preference, military service, and prior jury service. *Id.*

239. *Id.* CTS America advocates that its system is both accurate and consistent since it was developed and formulated by a research firm. *Id.* at 3 n.12. There is “a statistical error factor of only 2% at a 95% level of confidence.” *Id.*

240. John Gibeaut, *Justices Criticize Jury Selection Bias Again: Supreme Court Sends Back Texas Capital Case for Retrial*, A.B.A. J. (June 17, 2005), [http://cyber.law.harvard.edu/~nesson/ABA\\_Journal\\_Article.pdf](http://cyber.law.harvard.edu/~nesson/ABA_Journal_Article.pdf). This application looks at the exact juror demographic that should be selected by factoring in twenty separate demographic metrics, including: age, race, gender, education, occupation, marital status, number of children, religion, and income. *Id.* While some of these factors, such as race, may not be the sole reason for excluding a person in peremptory challenges, *Batson v. Kentucky*, 476 U.S. 79, 89 (1986), parties may consider all of these factors, *see* Gibeaut, *supra*.

241. Arnie K. Streater, *High-Tech, Cheap Way Found to Pick Jury*, ORLANDO SENTINEL (Jan. 5, 2003), [http://articles.orlandosentinel.com/2003-01-05/news/0301050141\\_1\\_jury-selection-jurors-jury-pool](http://articles.orlandosentinel.com/2003-01-05/news/0301050141_1_jury-selection-jurors-jury-pool). This is arguably much more affordable than the cost of trial consultants. *See* BERGER ET AL., *supra* note 39, at 173 (“Budget constraints, however, may prohibit hiring a consultant because these services can be extraordinarily costly.”); Strier & Shestowsky, *supra* note 31, at 444 (valuing trial consultancy as a \$400 million per year industry).

242. Walton, *supra* note 47. This application, while relatively new, is anticipated to expand because law firms are still gaining an understanding about Big Data and have never attempted to correlate the different information that these applications can aggregate. *See* Dysart, *supra* note 4.

243. Lex Machina’s “Legal Analytics” is a rebranded name for Big Data analytics. *See* Dysart, *supra* note 4.

244. *What We Do*, LEX MACHINA, <https://lexmachina.com/what-we-do/> (last visited Sept. 29, 2015).

information” to create a successful trial strategy, including predicting the outcome of current intellectual property cases.<sup>245</sup> Attorneys also use Lex Machina to determine whether a plaintiff tends to sue in particular districts, tends to settle, or has already sued customers, suppliers, or competitors.<sup>246</sup> While Lex Machina does not publicly disclose the cost, users have reported higher costs than SmartJury.<sup>247</sup>

Similar to Lex Machina, Premonition Analytics uses data mining and analysis to determine individual lawyer win rates before judges.<sup>248</sup> Self-described as a “very, very unfair advantage in [l]itigation,”<sup>249</sup> Premonition mines courthouse websites and reads thousands of cases to help clients identify the attorneys that win before certain judges on certain types of cases.<sup>250</sup> While Lex Machina focuses closely on patent cases, Premonition uses an Artificial Intelligence system to facially analyze 41,000 cases per day on a lower level of analysis.<sup>251</sup>

245. *Custom Insights*, LEX MACHINA, <https://lexmachina.com/features/insights/> (last visited Sept. 29, 2015); see also Rich Steeves, *Lex Machina Uses Big Data, Legal Analytics Tools to Help IP Attorneys*, INSIDE COUNS. (Oct. 29, 2013), <http://www.insidecounsel.com/2013/10/29/lex-machina-uses-big-data-legal-analytics-tools-to> (providing a brief overview of Lex Machina’s processes).

246. Dysart, *supra* note 4.

247. Daniel McKenzie, *Know Your Enemy: Lex Machina Raises \$2 Million for IP Litigation Analytics*, TECH CRUNCH (July 26, 2012), <http://techcrunch.com/2012/07/26/know-your-enemy-lex-machina-raises-2-million-for-ip-litigation-analytics/>. In 2012, an individual license cost around \$10,000 per year, *id.*, compared to SmartJury, which used to cost approximately \$1,000 per year, see Streater, *supra* note 241 and accompanying text. There are also other applications such as an application produced by LexisNexis that can offer predictions on potential medical malpractice cases by looking at whether a deviation in the standard of care may have occurred. *LexisNexis MedMal Navigator*, LEXISNEXIS, <http://www.lexisnexis.com/en-us/products/lexisnexis-medmal-navigator.page> (last visited Sept. 29, 2015); see also Dysart, *supra* note 4 (“MedMal Navigator . . . offers predictions on potential medical-malpractice cases.”).

248. David J. Parnell, *Toby Unwin of ‘Premonition’: Mining Legal Data for More Effective Counsel Selection*, FORBES (July 8, 2015), <http://www.forbes.com/sites/davidparnell/2015/07/08/toby-unwin-of-premonition-mining-legal-data-for-more-effective-counsel-selection/>. According to Premonition’s chief innovation officer, “the judge-attorney relationship is worth an average 30.7% of the outcome” because judges may view some experienced and familiar litigators as more credible than others. *Id.*

249. PREMONITION, <http://premonition.ai/> (last visited Sept. 29, 2015).

250. Patrick J. McKenna, *A Game-Changing Litigation Technology Trend*, THOMSON REUTERS (July 27, 2015), <http://legalexecutiveinstitute.com/a-game-changing-litigation-technology-trend/>. Part of this includes identifying outliers, such as an attorney who had twenty-two straight wins before a certain judge. *Id.* Premonition also focuses on case duration because duration has a large impact on a client’s total spending. *Id.*

251. Zach Abramowitz, *Moneyball for Litigation? A Conversation with Premonition’s Toby Unwin*, ABOVE THE LAW (July 30, 2015, 5:31 PM), <http://abovethelaw.com/2015/07/moneyball-for->

While the use of Big Data in pretrial research, specifically when analyzing whether particular potential jurors should be dismissed for cause, may initially appear to implicate preemption and privacy concerns,<sup>252</sup> the amendment to section 230 prevents these privacy concerns from becoming a reality.<sup>253</sup> The amendment to section 230 requires the party challenging a juror for cause to prove in court that the potential juror has actual bias, has implicit bias, or is generally disqualified.<sup>254</sup> Thus, even if Big Data analytics predicts that a potential juror may rule against a party's case, the challenging party cannot excuse that juror for cause unless there is in-court proof that the juror was actually biased.<sup>255</sup> Simultaneously, these benefits to the parties do not conflict with an individual juror's right to privacy under the amended statute.<sup>256</sup>

*B. An Amendment to Section 230 Ensures the Protection of Potential Jurors' Right to Privacy*

While there may be facial concerns about privacy under an amendment to section 230, the use of Big Data in trial preparation does not implicate privacy concerns because of limitations on juror investigation<sup>257</sup> and professional responsibility standards.<sup>258</sup> Courts have attempted to balance a juror's right to privacy in numerous cases, weighing the rights "between the competing parties . . . and the potential juror."<sup>259</sup> Paired with the proposed

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litigation-a-conversation-with-premonitions-toby-unwin/. This AI system learns like a child—it first learns the system slowly but rapidly gains in speed and accuracy. McKenna, *supra* note 250. Once the AI system analyzes the cases, it creates complex tables and mines overall win rates for judge-to-judge comparisons and specialists in different types of cases. *Id.*

252. See *supra* notes 144–49 and accompanying text.

253. See *infra* Part IV.B.

254. See *supra* notes 164–69 and accompanying text.

255. See *supra* notes 164–69 and accompanying text. Lawyers can still use information gained in pretrial research, or through Big Data, to determine what questions should be asked to reveal potential jurors' biases. See Redgrave & Stover, *supra* note 48, at 214. See generally Hoskins, *supra* note 1.

256. See *infra* Part IV.B.

257. See *supra* note 50 and accompanying text.

258. MODEL RULES OF PROF'L CONDUCT R. 3.5 (AM. BAR ASS'N 2014) ("A lawyer shall not . . . communicate ex parte with [a prospective juror] during the proceeding . . ."); Hoskins, *supra* note 1, at 1106; see also *Press-Enter. Co. v. Superior Court*, 464 U.S. 501, 511 (1984) (noting that in some circumstances jurors have a protected interest in not disclosing personal information like a history of sexual abuse).

259. *Brandborg v. Lucas*, 891 F. Supp. 352, 356 (E.D. Tex. 1995). In this case, a potential juror

amendment to section 230, a prospective juror's right to privacy is more protected than under the current scheme.<sup>260</sup> Additionally, privacy is more than keeping one's information secret; privacy focuses on how one's information is used once obtained.<sup>261</sup> There are three reasons illustrating why the use of Big Data in jury selection is not a violation of a prospective juror's right to privacy.

First, other industries use Big Data in more invasive ways than how lawyers could use Big Data under the amended statute.<sup>262</sup> Private corporations and government agencies regularly use the information disclosed to them by individuals, knowingly and unknowingly, for their own gain.<sup>263</sup> Target collects women's Internet search and purchase histories to predict whether a woman is pregnant,<sup>264</sup> online advertising is personalized based on an individual's search history,<sup>265</sup> the United States government uses predictive algorithms to create no-fly lists,<sup>266</sup> and local government agencies use personal cell phone information and metadata to manage traffic flows.<sup>267</sup> Technology experts concede that Big Data can impact an individual's privacy in other industries and fields;<sup>268</sup> yet, even though these actions are invasive, these actions still do not violate an individual's right to privacy.<sup>269</sup>

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refused to answer twelve questions on a voir dire questionnaire because some questions, which addressed religion and political affiliation, were private in nature. *Id.* at 353–54. The district court found that the importance of balancing the rights of the juror justified the juror's refusal to answer the questions. *Id.* at 361.

260. *See infra* notes 270–76 and accompanying text; *see also supra* note 165 and accompanying text.

261. Richards & King, *supra* note 72, at 410.

262. *See supra* notes 128–32 and accompanying text (discussing Target's "pregnancy prediction" algorithm and program).

263. Duhigg, *supra* note 128; *see* Richards & King, *supra* note 72, at 393 ("Many of the most revealing personal data sets such as call history, location history, social network connections, search history, purchase history, and facial recognition are *already* in the hands of governments and corporations." (emphasis added)).

264. Duhigg, *supra* note 128.

265. Hazan & Banfi, *supra* note 127.

266. Kerr & Earle, *supra* note 119, at 69.

267. *See supra* notes 133–37 and accompanying text.

268. Jeff Kelly, *The Dual Role of Mobile Devices for Big Data*, WIKIBON BLOG (Mar. 19, 2013), <http://wikibon.org/blog/the-dual-role-of-mobile-devices-for-big-data/> ("[M]any do not realize that the smartphone in their pocket is akin to a tracking device continuously relaying location, communication and behavior data.").

269. Kate Crawford & Jason Schultz, *Big Data and Due Process: Toward a Framework to Redress Predictive Privacy Harms*, 55 B.C. L. REV. 93, 95 (2014). In a recent Supreme Court case, the Court declined to decide whether the use and collection of GPS data, absent any physical

In contrast, under an amended section 230, an attorney will not violate an individual's privacy because the use of Big Data is less invasive.<sup>270</sup> Some scholars argue that using Big Data will inherently invoke privacy concerns,<sup>271</sup> but this mischaracterizes how attorneys will use Big Data in the pretrial context. With the amended statute, parties can only use and aggregate a potential juror's publicly-available information to determine whether the parties should keep or challenge a potential juror for cause.<sup>272</sup> And even if a party to the case aggregates or analyzes an individual juror's information, that party cannot use that information in court to remove that juror.<sup>273</sup> This ensures that any information or aggregation of information remains private.<sup>274</sup> Rather, the parties can only use that information to help form questions for voir dire and try to prove bias or disqualification in court under section 227 of California's Civil Procedure Code.<sup>275</sup> Thus, Big Data under an amended statutory scheme merely serves as another tool for litigators preparing for jury selection and not as a tactic to remove a juror for cause without the attorney proving actual bias.<sup>276</sup>

Second, all of the information that parties could aggregate about individuals is currently available.<sup>277</sup> Big Data aggregates the information from various outlets of unstructured data to create a more accurate picture of individuals and a community.<sup>278</sup> Since the information that Big Data would aggregate is publicly-available information,<sup>279</sup> the aggregation of this information is not a privacy violation.<sup>280</sup> This is especially true when

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intrusion, would violate an individual's right to privacy. *See* *United States v. Jones*, 132 S. Ct. 945, 949 (2012). *But see id.* at 956 (Sotomayor, J., concurring) (noting that GPS monitoring alone may potentially violate a "reasonable societal expectation of privacy").

270. *See supra* note 164 and accompanying text.

271. *See, e.g.,* Kerr & Earle, *supra* note 119, at 66 ("Big [D]ata's predictive tool kit . . . threatens fundamental legal tenets such as privacy and due process.").

272. *See supra* notes 164–69 and accompanying text.

273. *See supra* notes 164–69 and accompanying text.

274. *See supra* notes 166–71 and accompanying text.

275. CAL. CIV. PROC. CODE § 227 (West 2012).

276. *See* Walton, *supra* note 47 ("Big Data adds the possibility of having the ability to pull information about prospective jurors from the publicly-available data in real time.").

277. Much of the actual data that is collected and stored has some sort of protection that prevents its dissemination to other organizations. Richards & King, *supra* note 72, at 416–17.

278. *See* Weinstein, *supra* note 44, at 35–37.

279. *See infra* notes 282–83 and accompanying text.

280. *But see* Weinstein, *supra* note 44, at 35–36 (discussing the potential problems resulting from an aggregation of an individual's information). However, private corporations and governments are

considering that individuals deliberately and willfully post and place other personal information on social media websites, such as Facebook, Twitter, or LinkedIn, to be accessed and used by the public and other users.<sup>281</sup>

Finally, information obtained about potential jurors during pretrial research, either through Big Data or other technology, is limited to publicly-accessible information.<sup>282</sup> This contrasts with the use of Big Data in other industries, such as advertising, where parties have access to information that could be unwillingly disclosed to private parties and used by those parties to invade a private citizen's right to privacy.<sup>283</sup> Pretrial Internet research of various prospective jurors may potentially implicate privacy concerns; however, pretrial Internet research does not amount to an invasion of a potential juror's privacy.<sup>284</sup> By extension, Big Data's ability to look at seemingly uncorrelated publicly-available information and derive meaning

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currently aggregating and using an individual's information on a larger and more pervasive scale. See Greenwald et al., *supra* note 71 (discussing the surveillance tactics used by the National Security Agency); Duhigg, *supra* note 128 (discussing Target's pregnancy predictor). While some corporations—such as Intel—are using Big Data to aggregate information from consenting individuals with the goal of treating and curing diseases, other corporations—such as Target—are aggregating personal information without true explicit consent to predict personal information about people with the purpose of increasing sales. See Duhigg, *supra* note 128; Kelion, *supra* note 122. Yet Target's model does not violate current privacy boundaries and regulations. See Crawford & Schultz, *supra* note 269, at 95. The courts have never found that the aggregation of publicly-available information causes a privacy violation. Weinstein, *supra* note 44, at 36.

281. See Hoskins, *supra* note 1, at 1108–09. Researching Facebook, Twitter, and other online sources is not a privacy violation because those sites are not considered websites that have a reasonable expectation of privacy. *Id.* at 1111; see *Commonwealth v. Proetto*, 771 A.2d 823, 831 (Pa. Super. Ct. 2001) (finding that an individual was not entitled to a reasonable expectation of privacy on his or her personal website). Some scholars note that Internet research is not as invasive as other forms of widely-accepted pretrial research, such as seeking information from a juror's neighbors or friends. See, e.g., Hoskins, *supra* note 1, at 1112. This further supports that incorporating Big Data into pretrial research would not be an impermissible invasion of a juror's right to privacy because Big Data is merely another form of technology, like Internet research, used to obtain publicly-available information about individuals.

282. See Hoskins, *supra* note 1, at 1112. This information could include, but is not limited to, the following: (1) juror postings on social media websites; (2) public records, such as political contributions or property records; (3) news stories, such as letters to the editor; or (4) other pertinent listings, such as church affiliations or comments on online news sources. Jeffrey T. Frederick, *You, the Jury, and the Internet*, 39 BRIEF 12, 17 (2010).

283. See *supra* notes 128–32 and accompanying text.

284. Hoskins, *supra* note 1, at 1111–12 (“When attorneys confront jurors with ostensibly private information during the jury-selection process—often in front of other prospective jurors, the court, and attorneys—jurors may feel like their privacy has been invaded, whether or not the action meets the legal standard for invasion of privacy.”).

from it does not violate a potential juror's right to privacy.<sup>285</sup> This is strengthened by the fact that much of Big Data's usefulness in pretrial research and trial preparation is in the discovery of community values and beliefs<sup>286</sup> and the creation of the ideal juror profile based on that particular community.<sup>287</sup>

Therefore, the use and implementation of Big Data into trial preparation and jury research is not more invasive on an individual's right to privacy than similar Big Data processes in other industries.<sup>288</sup> This, weighed against the benefits that Big Data provides to the parties,<sup>289</sup> shows that an amendment to section 230<sup>290</sup> maintains the benefits of Big Data without overriding an individual juror's right to privacy.

## V. CONCLUSION

Technology plays an increasingly large role in pretrial research and jury selection for both attorneys and trial consultants.<sup>291</sup> Big Data is a rapidly growing form of technology that aggregates unstructured data and uncorrelated sets of information to find correlations and meanings that are not normally identifiable.<sup>292</sup> Big Data, like other forms of technology, has impacted various industries<sup>293</sup> and will positively impact the legal community as well.<sup>294</sup> However, privacy concerns follow Big Data's incorporation into any new field or industry because Big Data aggregates an individual's information and uses that information to predict, and potentially preempt, that individual's future actions.<sup>295</sup>

Thus, section 230 of California's Civil Procedure Code should be

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285. *Cf. id.* at 1112 (“[P]rivacy concerns, however, are ultimately outweighed by the perceived benefits of . . . Internet research.”). Just as pretrial Internet research was a permissible extension of traditional pretrial research, using Big Data to assist in pretrial research and preparation is a permissible extension of Internet research. *See id.*

286. *See supra* Part IV.A.1.

287. *See supra* Part IV.A.2.

288. *See supra* notes 263–68 and accompanying text.

289. *See supra* Part IV.A.

290. *See supra* Part III.

291. *See supra* Part II.A.1–2.

292. *See supra* Part II.B.

293. *See supra* Part II.B.1.

294. *See supra* Part IV.A.

295. *See supra* Part II.B.2.



amended to require a party challenging a potential juror for cause to prove in court that the potential juror is truly biased or disqualified.<sup>296</sup> By preventing parties from removing potential jurors for cause without any evidence in court, an amended section 230 will protect jurors from being preemption before they are even able to hear a case or before a litigant proves that a potential juror is biased.<sup>297</sup> Privacy violations do not arise through aggregation of information either because, unlike other industries or the government,<sup>298</sup> here Big Data only uses publicly-available information.<sup>299</sup> On the other hand, parties can still use Big Data under an amended section 230 to determine community values,<sup>300</sup> determine the traits of an ideal or antithetical juror,<sup>301</sup> and evaluate individual jurors.<sup>302</sup>

Due to advancements in technology, such as the advent and increased use of Big Data, our understanding of the ideal juror is no longer limited to an individual's wealth.<sup>303</sup> However, this does not mean that litigants should have unfettered access to, and use of, a potential juror's information.<sup>304</sup> Jurors are still entitled to a certain level of privacy, and an amended section 230 balances a juror's privacy interests while allowing litigants to determine whether they truly want "a wealthy man on a jury."<sup>305</sup>

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296. See *supra* Part III.

297. See *supra* notes 230–32 and accompanying text.

298. See *supra* notes 263–68 and accompanying text.

299. See *supra* Part IV.B.

300. See *supra* Part IV.A.1.

301. See *supra* Part IV.A.2.

302. In order to protect an individual's privacy, evaluating jurors is subject to some limitations under section 230. See *supra* Part IV.A.3.

303. See Hoskins, *supra* note 1, at 1105 (“[N]ever take a wealthy man on a jury. He will convict unless the defendant is accused of violating the anti-trust law, selling worthless stocks or bonds or something of that kind.”).

304. See *supra* Part II.A.3.

305. Hoskins, *supra* note 1, at 1105.

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