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Matthew Gordon Miller

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Beast of Undue Burden: The Interplay of Technology Assisted Review and the Proposed Amendments to the Federal Rules of Civil Procedure

Matthew Miller, J.D. Candidate

ABSTRACT

Rule 26 of the Federal Rules of Civil Procedure (“Rules” or “the Rules”) mandates that all documents relevant to litigation are to be given to the opposing party during discovery. As more and more business’s records are stored electronically, courts have struggled with how to adequately address the burden of production regarding large quantities of electronically stored information (“ESI”). Discovery of ESI (“eDiscovery”) has often proven to be unduly burdensome, both for the courts and the litigating parties. Frequently, the cost of properly identifying relevant documents is prohibitively high for litigants with limited resources. Thus, many litigations result in the over-production of documents in an attempt to make the litigation too costly to proceed with.

Both legislators and vendors have attempted to combat this abuse of eDiscovery by proposing amendments to the Rules governing discovery requests and by creating tools that simplify the eDiscovery process, respectively. The tools produced by these vendors employ various computer technologies and statistical techniques and are referred to by vendors as “technology assisted review” or more colloquially, “predictive coding.” Predictive coding uses machine learning to teach a computer to identify relevant documents out of large datasets. Predictive coding can dramatically decrease the cost of producing documents from large sets of ESI, thus preventing over-production of ESI for the purposes of making litigation prohibitively expensive.

In 2013, the Advisory Committee on Civil Rules proposed a number of changes to the Federal Rules of Civil Procedure, many of them pertaining to reducing the cost and time of modern discovery. This article will focus on the changes to Rule 26, and Rule 34 (The Rule governing the production of ESI) to the extent that it depends on Rule 26, as well as the implications that predictive coding might have in consideration of the proposed amendments.

Part I of this article will review Rules 26 and 34 of the Federal Rules of Civil Procedure. Part II will give a history of modern eDiscovery and a walkthrough of a technology assisted review. Part III will summarize the Court’s treatment of technology assisted review in the relevant case law addressing. Part IV will examine the proposed amendments, the considerations informing the proposed amendments, and technology assisted review’s role in the proposed eDiscovery system. The article then concludes.
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INTRODUCTION

In this day and age computers are at the forefront of almost every industry. Year after year, more and more aspects of the business world become digitized. With this rampant digitization come new issues related to litigation. Such issues include: when electronically stored information (“ESI”) can be deleted\(^1\), what constitutes acceptable media for storing ESI, and how to process and analyze ESI before producing said information pursuant to a litigation. Further, because the best practices surrounding ESI seemingly shift with the tide, attorneys must be ever-diligent in staying informed with respect to relevant technology and the law surrounding its use.

At the heart of any discussion involving burdens of production associated with discovery is Rule 26 of the Federal Rules of Civil Procedure (“Rule 26”). Rule 26 outlines the metes and bounds of what information a party to a litigation must turn over to their adversary at the beginning of a trial. This process is known as “discovery.” In short, Rule 26 mandates that a party must produce the names, addresses, and phone numbers of all parties who might have discoverable information.\(^2\) Unsurprisingly, an attorney presented with this incredibly broad language in the face of a potentially staggering amount of ESI has a number of challenges to overcome. For example, review of these documents can be both time-consuming for the attorney and expensive for the client.

Moreover, many clients are either unwilling or unable to pay a small fleet of attorneys to review their large amount of potentially discoverable documents. This cost at the onset of litigation can act as a stumbling block for a party wishing to assert their rights. Even further, many attorneys use Rule 26’s burden of production to “game” their adversaries. This is achieved by producing far more than simply the relevant information. Overproduction has always been an

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\(^1\) See Christopher B. Little, Zubulake and the Duty to Preserve Electronically Stored Data, 37 The Colorado Lawyer 95 (September 2008).
\(^2\) FED. R. CIV. P. 26.
issue in large litigations\textsuperscript{3}, but in today’s world, the sheer magnitude of many companies’ ESI allows attorneys to make discovery unduly burdensome for their adversaries to review. An example of this overproduction that has received attention from the media is in the recent Apple v. Samsung patent litigation, where both parties produced millions of documents during discovery.\textsuperscript{4} In this case, both parties were large enough to parse through a production of that magnitude, however, it is not uncommon for there to be a large disparity in the resources of the two parties. In such situations, overproduction of ESI\textsuperscript{5} is used as a sword to make the cost of litigation too expensive for the smaller party to realistically pursue.\textsuperscript{6} On the other side of the same coin, are the challenges associated with sorting through one’s own documents to sufficiently respond to an adversary’s discovery request. However, regardless of an attorney’s role, the magnitude of modern ESI coupled with the burdens of Rule 26 present many challenges.

As clients are increasingly faced with the problem of sorting through millions of pieces of ESI, a number of vendors appear to have addressed this issue. These vendors specialize in


\textsuperscript{5} It should be noted that the 2006 advisory committee note to Federal Rule of Civil Procedure Rule 34, states that “[t]he production of electronically stored information should be subject to comparable requirements to protect against deliberate or inadvertent production in ways that raise unnecessary obstacles for the requesting party.” However, a discussion of the remedies provided by Rule 34 is outside the scope of this article. FED. R. CIV. P. 34.

\textsuperscript{6} Ralph Losey, \textit{Day One of Predictive Coding Narrative: Searching for Relevance in the Ashes of Enron}, e-Discovery Team (July 1, 2012, 4:37pm), http://e-discoveryteam.com/2012/07/01/day-one-of-a-predictive-coding-narrative-searching-for-relevance-in-the-ashes-of-enron/ (last visited Dec. 6, 2013) (quoting Bondi v. Capital & Fin. Asset Mgmt. S.A., 535 F.3d 87, 97 (2d Cir. 2008) “This Court . . . has taken note of the pressures upon corporate defendants to settle securities fraud ‘strike suits’ when those settlements are driven, not by the merits of plaintiffs’ claims, but by defendants’ fears of potentially astronomical attorneys’ fees arising from lengthy discovery.”); \textit{Spielman v. Merrill Lynch, Pierce, Fenner & Smith, Inc.}, 332 F.3d 116, 122-23 (2d Cir. 2003) (“The PSLRA afforded district courts the opportunity in the early stages of litigation to make an initial assessment of the legal sufficiency of any claims before defendants were forced to incur considerable legal fees or, worse, settle claims regardless of their merit in order to avoid the risk of expensive, protracted securities litigation.”); \textit{Lander v. Hartford Life & Annuity Ins. Co.}, 251 F.3d 101, 107 (2d Cir. 2001) (“Because of the expense of defending such suits, issuers were often forced to settle, regardless of the merits of the action. PSLRA addressed these concerns by instituting . . . a mandatory stay of discovery so that district courts could first determine the legal sufficiency of the claims in all securities class actions.” (citations omitted)); \textit{Kassover v. UBS A.G.}, 08 Civ. 2753, 2008 WL 5395942 at *3 (S.D.N.Y. Dec. 19, 2008) (“PSLRA’s discovery stay provision was promulgated to prevent conduct such as: (a) filing frivolous securities fraud claims, with an expectation that the high cost of responding to discovery demands will coerce defendants to settle; and (b) embarking on a ‘fishing expedition’ or ‘abusive strike suit’ litigation.”)).
eDiscovery and have created tools to help litigants of all sizes lower their discovery costs. Recently, one particular class of tool has received much mention from legal practitioners and scholars alike “technology assisted review,” or more colloquially, “predictive coding.” Predictive coding refers to a specially configured computer that, with the help of an attorney, can learn how to identify relevant documents within a given dataset of any size. With the aid of this specially configured computer, an attorney is capable of reviewing a large amount of ESI at a significantly reduced cost.

However, this reduced cost comes at the price of not having an attorney individually review all documents being sent to their adversary. This poses many potential problems, one of which is the focus of this paper. The first is whether, with the assistance of an attorney, a computer can accurately identify all relevant information sufficient to satisfy the burdens created by Rule 26. While legal scholars and practitioners agree that computers serve this purpose well, this article will discuss the methods that such a system employs while examining the underlying processes in detail.

While vendors are looking to develop new technology, the legislature would like to adapt the current system of rules surrounding eDiscovery to address the aforementioned problems. While moving through the remaining sections, consider whether, in the wake of uninhibited growth of ESI and the tools used to process said ESI, the Advisory Committee on Civil Rules’ amendments to Rule 26 will be effective in facilitating, expediting the judicial process. This article will argue that the proposed amendments, particularly in light of the Court’s positive

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treatment of technology assisted review, will effectively lower the time and costs associated with discovery and, consequently, significantly reduce malicious instances of overproduction of ESI.

Part I of this article will review Rules 26 and 34 of the Federal Rules of Civil Procedure. Part II will give a history of modern eDiscovery and a walkthrough of a technology assisted review. Part III will summarize the Court’s treatment of technology assisted review in the relevant case law. Part IV will examine the proposed amendments, the considerations informing those propositions, and technology assisted review’s role in the proposed eDiscovery system. The article then concludes.

I. RULES AND GUIDELINES ADDRESSING eDISCOVERY

Rules 26 through 37 of the Federal Rules of Civil Procedure govern discovery in the federal court system. Rules 26 and 34 work in conjunction to handle the discovery of ESI. Note that while this section describes the Rules as they currently stand, on August 15, 2013, “the Judicial Conference Advisory Committees on Bankruptcy and Civil Rules have proposed amendments to their respective rules and requested that the proposals be circulated to the bench, bar, and public for comment.” The proposed amendments to Rule 26 are reproduced in Appendix A and the proposed amendments to Rule 34 are reproduced in Appendix C. The implications and merits of these amendments are discussed in Part IV, supra.

Rule 26 commands that a copy of all documents, including electronically stored information that a disclosing party controls, is going to use, or may be used in support of that party’s claims or defenses must be presented. Rule 34 of the Federal Rules of Civil Procedure

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10 This excludes information that is going to be presented for the sole purpose of impeachment. Fed. R. Civ. P. 26(a)(1)(A)(ii).
 (“Rule 34”) discloses the scope of what must be produced pursuant to Rule 26(b). Further, the Sedona Conference, a leading lobbyist group, issues guidelines on how to manage ESI roughly every three years. Part III, supra, illustrates how the Court holds these guidelines in high regard and how they often inform judges’ opinions. The above rules and guidelines are traversed below.

A. Rule 26

As mentioned above, Rule 26 of the Federal Rules of Civil Procedure provides the general rules surrounding discovery practice. Rule 26 contains a multitude of subparts, many of which have an entire body of law surrounding them.\textsuperscript{11} In sum, Rule 26 lists what disclosures are mandatory, the scope of the disclosures that must be made, the circumstances where granting a protective order regarding a disclosure is appropriate, the timing of when disclosures must be made, as well as when and how to supplement deficient disclosures.\textsuperscript{12} Rule 26 also mandates scheduling conferences between all parties and the presiding judge, as well as other formalistic requirements. While Rule 26 covers many areas of discovery, this article only delves into Rules 26(b), 26(c), and 26(f). Rule 26(d) will also be discussed briefly.

Rule 26(b) defines the limits and scope of discovery; Rule 26(b)(2)(B) delineates the specific limitations concerning ESI.\textsuperscript{13} That subsection of Rule 26 states that only ESI that is “reasonably accessible” must be produced.\textsuperscript{14} One of the main factors relevant to this consideration is the potential for “undue burden or cost.”\textsuperscript{15} Further, Rule 26(b)(2)(C)(iii) mandates that courts “[o]n motion or on its own” limit the scope of discovery.\textsuperscript{16} This mandate also considers undue burden by balancing whether “the burden or expense of the proposed

\textsuperscript{11} See full text supra Appendix A.
\textsuperscript{12} FED. R. CIV. P. 26.
\textsuperscript{13} FED. R. CIV. P. 26(b)(2)(B).
\textsuperscript{14} Id.
\textsuperscript{15} Id.
\textsuperscript{16} FED. R. CIV. P. 26(b)(2)(C)(iii).
discovery outweigh[s] its likely benefit.” 17 The risk of undue burden and costs grow proportionally with the magnitude of discoverable ESI. How the courts and legal practitioners are addressing these considerations strikes at the heart of this article.

Rule 26(c) allows a party to move the court to grant a protective order regarding certain disclosures.18 That is, under the Federal Rules of Civil Procedure a court is authorized to take a number of measures to “protect a party from annoyance, embarrassment, oppression, or undue burden or expense” regarding any information produced in discovery.19 However, a court may only grant such a protective order if “the movant has in good faith conferred or attempted to confer with other affected parties in an effort to resolve the dispute without court action.”20 Rule 26(d) discusses when discovery may be sought from the opposing party.21

As mentioned, Rule 26(f) commands that all parties meet with each other prior to holding a scheduling conference with the judge presiding over the litigation.22 Under Rule 26(f)(3), parties are instructed to create a discovery plan that addresses, among other things, (1) any changes to the timing of discovery that should be made, (2) what subjects should be considered while making the required productions, (3) the form that discoverable ESI should be produced in, and (4) any limits to the scope of discovery.23

B. Rule 34

Rule 34 of the Federal Rules of Civil Procedure defines the scope of discoverable ESI and the form that said ESI must take. However, Rule 34 was not always as expansive as it is

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17 Id.
18 FED. R. CIV. P. 26(c).
19 For a list of protective orders the court is authorized to grant, see FED. R. CIV. P. 26(c)(1)(A)- FED. R. CIV. P. 26(c)(1)(H).
20 FED. R. CIV. P. 26(c).
21 FED. R. CIV. P. 26(d).
22 FED. R. CIV. P. 26(f).
23 See FED. R. CIV. P. 26(f)(3).
today. In 1970, Congress officially recognized the practice of eDiscovery. Before 1970, when Congress amended Rule 34 to state that “[w]hen the data can as a practical matter be made usable by the discovering party only through respondent’s devices, respondent may be required to use his devices to translate the data into usable form,” there was great dispute as to whether electronic information was discoverable.24 This is because the prior version of Rule 34 stated that parties merely needed to produce “documents,” without defining what constituted such a document.25 To address this ambiguity, the Committee wrote that the amendment “makes clear that Rule 34 applies to electronic data compilations,” dispelling any uncertainty about the Rule’s scope.26 It is salient to state that those same notes also recognize the potentially undue cost associated with the production of ESI: “The burden thus placed on respondent will vary from case to case, and the courts have ample power under Rule 26(c) to protect respondent against undue burden of expense, either by restricting discovery or requiring that the discovering party pay costs.”27 This expansive definition was explicitly incorporated into Rule 26 in the Advisory Committee’s 2006 amendments to the Federal Rules of Civil Procedure.28 Additionally, the 2006 amendments modernized and expanded the scope of Rule 34(a) to include “any designated documents or electronically stored information.”29 Further, Rule 34(b) states that a discovery request for ESI may specify the form in which the ESI is to be produced.30 If no form is stated, the ESI must be produced in the form it was stored in or another reasonable form.31 However,

25 Id.
26 Id.
27 Id.
Rule 34(b) does not require the producing party to comply with a request to translate the ESI into another language.\textsuperscript{32}

\textbf{C. The Sedona Guidelines}

Given that the language of Rules 26 and 34 regarding eDiscovery is incredibly broad, legal practitioners and courts alike were left without much guidance on how to apply these rules. While a number of groups have proposed guidelines on how to treat discovery requests for ESI, one particular group, The Sedona Conference, has gained marked traction. The Sedona Conference describes themselves as “a charitable, 501(c)(3) non-partisan research and educational institute dedicated to the advancement of law and policy in the areas of antitrust law, complex litigation and intellectual property rights.”\textsuperscript{33}

In 2007, the Sedona Conference released a second edition of The Sedona Guidelines: Best Practice Guidelines & Commentary for Managing Information & Records in the Electronic Age (“the Sedona Guidelines” or “the Guidelines”).\textsuperscript{34} This document was developed by “some of the nation’s finest lawyers, consultants, academics and jurists…[to address] the management of electronic information in organization as a result of business, statutory, regulatory and legal needs.”\textsuperscript{35} The Sedona Guidelines consist of five guidelines with about 40 pages of additional commentary. The headings of the five guidelines read:

1. An organization should have reasonable policies and procedures for managing its information and records.
2. An organization’s information and records management policies and procedures should be realistic, practical and tailored to the circumstances of the organization.

\textsuperscript{32} See \textit{In re Puerto Rico Elect. Power Auth.}, 687 F.2d 501, 504-510 (1st Cir. 1989).
\textsuperscript{35} \textit{Id.} at iii.
3. An organization need not retain all electronic information ever generated or received.
4. An organization adopting an information and records management policy should also develop procedures that address the creation, identification, retrieval and ultimate disposition or destruction of information and records.
5. An organization’s policies and procedures must mandate the suspension of ordinary destruction practices and procedures as necessary to comply with preservation obligations related to actual or reasonably anticipated litigation, government investigation or audit.\textsuperscript{36}

While these headings do not fully elucidate the full contents of the Guidelines, further discussion is outside the scope of this article.\textsuperscript{37} Any relevant sub-sections of the Guidelines will be addressed in context, supra.

II. \textbf{EDiscovery and Technology Assisted Review}

As this article has stated, eDiscovery has forced the legal community to grapple with a number of issues, chiefly: the incredible magnitude of ESI, the cost associated with producing ESI, and which party should bear that cost. This section will first discuss the history of eDiscovery and subsequently delve into the contents of an emerging eDiscovery tool known as “technology assisted review” or “predictive coding”.

A. \textit{History}

Salient to this section is the fact that the Supreme Court has consistently held that “the responding party must bear the expense of complying with discovery requests” unless a judge deems that the production would involve “undue burden or expense.”\textsuperscript{38} This is pertinent since prior to 1970, when electronically stored documents were deemed discoverable, legal practitioners had little guidance on how to treat their clients’ ESI. As the scope of discoverable

\textsuperscript{36} \textit{Id. at iv-v.}
\textsuperscript{37} For more information concerning the contents of the Sedona Guidelines, see \textit{Id. at} 11-51.
ESI was expanded, the Rules and procedures around eDiscovery became more complex. Legal scholars will agree that the dawn of modern eDiscovery practice began when Judge Scheindlin of the United States District Court for the Southern District of New York decided Zubulake v. UBS Warburg LLC (“Zubulake I”), the first of five opinions issued relating to eDiscovery in that case. In addition to providing legal practitioners with a port in a storm of uncertain eDiscovery practices, Judge Scheindlin’s opinion in Zubulake I has become highly precedential in determining whether a party has sufficiently satisfied Rule 26 in their production of ESI. In this seminal opinion, under the rubric reprinted below, Judge Scheindlin assessed whether the producing party’s costs in aggregating and producing the relevant ESI should be shifted to the receiving party. In her opinion, Judge Scheindlin divided media capable of storing ESI into five categories. If the ESI is contained in (1) active, online data, (2) near-line data, or (3) in an offline storage archive, the ESI is discoverable without warranting a shift in the cost of production. However, if the ESI is stored on (4) backup tapes or the ESI itself can reasonably be classified as (5) “erased, fragmented, or damaged data,” a seven-factor cost-shifting analysis should be employed. These seven factors are as follows:

1. The extent to which the request is specifically tailored to discover relevant information;
2. The availability of such information from other sources;
3. The total cost of production, compared to the amount in controversy;
4. The total cost of production, compared to the resources available to each party;
5. The relative ability of each party to control costs and its incentive to do so;

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41 Id. at 320.
42 Id. at 316.
6. The importance of the issues at stake in the litigation; and
7. The relative benefits to the parties of obtaining the information.\textsuperscript{43}

In 2003, only 1\% of documents generated by businesses were produced in paper format without an electronic backup.\textsuperscript{44} One can expect that with the rise of both processing and connectivity speeds, the amount of ESI has only grown in the past decade. In response to the ever-increasing magnitude of ESI, coupled with this risk of the receiving party bearing the cost of production, new tools for addressing this problem were developed to cull the relevant ESI from the irrelevant.\textsuperscript{45}

In 2008, technology assisted review, also known as “predictive coding,” was born.\textsuperscript{46} Many people disagree on an exact definition of predictive coding;\textsuperscript{47} however, this article submits that predictive coding is adequately described as a computer, which, with the help of an attorney, employs machine-learning techniques to identify and separate relevant pieces of ESI from a given preassembled dataset.\textsuperscript{48} A highly technical discussion is contained in this part, supra; however, for the sake of clarity a cursory summary is prudent: typically, a predictive coding analysis begins with an attorney assembling all potentially relevant pieces of ESI into a single database and then out of a randomly selected sampling, the attorney identifies what documents are relevant. Once this is performed, the computer uses the documents that the attorney identified as relevant to draw conclusions about what made those documents relevant. Multiple iterations of this process occur until the computer’s predictions are, in the attorney’s opinion, sufficiently

\textsuperscript{43} Id. at 322.
\textsuperscript{45} See supra, Part II(B) (While technology assisted review is capable of reducing the costs associated with discovery, it can still be quite expensive).
\textsuperscript{48} See generally, Id.
accurate.\textsuperscript{49} The attorney determines sufficiency by considering whether s/he has vetted the documents to an extent that may be considered a “reasonable effort,” pursuant to Rule 26.\textsuperscript{50} Once the attorney believes the computer has learned to adequately determine relevancy within the randomly selected datasets, the computer is instructed to apply its learning to the entire dataset. Ultimately, if the attorney has properly trained the computer, this action will result in separating all of the relevant documents from the irrelevant ones.\textsuperscript{51}

For some time, whether an attorney using predictive coding complied with the requirements of Rule 26 was unresolved. The first indication of its acceptability for this purpose came in 2011 from Judge Peck, also a Judge for the United States District Court for the Southern District of New York. In 2011, Judge Peck published an article advocating the use of predictive coding.\textsuperscript{52} In that article, he indicated that in determining whether to allow a party to use technology assisted review, a court will consider (1) how the seed set is created, (2) whether the seed set is discoverable, (3) the prediction score threshold for production, (4) the appropriate confidence level and interval, and (5) where subsequent manual review is appropriate.\textsuperscript{53} The following section provides an in-depth review of how one vendor’s predictive coding software production of a final set of ESI that was deemed to be fully responsive, avoid duplicative production, and prevent the involuntary waiver of the attorney-client privilege. Of course, achieving these goals when working with a large dataset is no trivial endeavor.


\textsuperscript{51} Id. at 60.


\textsuperscript{53} See Id.
B. Walkthrough

As this section details the steps of a predictive coding analysis, consider how similar the attorney’s role in this process is to that in traditional document review. This similarity should inform a decision about whether predictive coding can sufficiently meet the burdens set forth in Rules 26 and 34. Thus, it is important to finely detail these steps so that any potential problems can be underscored. This article opines that, provided that an attorney makes relevancy determinations in good faith, predictive coding can certainly meet the burdens stated in Rules 26 and 34.

Providing an in-depth discussion of a technology assisted review presents two major challenges. The first is that any attorney that has performed a technology assisted review for a client is bound by the attorney-client privilege. Therefore, the attorney cannot disclose in any meaningful detail their experience with predictive coding technology. The other problem is that the fierce competition between technology assisted review vendors is fierce, which gives them pause when disclosing their particular culling methods; lest they give the competition an avenue to gain a competitive advantage.54 Fortunately, one such individual is willing to bear the risk of disclosing his experience with predictive coding. Ralph Losey, a practicing attorney who specializes in eDiscovery, details his efforts in conducting a technology assisted review in a seven-part post on his blog, “e-Discovery Team.”55

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55 Ralph Losey, Day One of Predictive Coding Narrative: Searching for Relevance in the Ashes of Enron, e-Discovery Team (July 1, 2012, 4:37pm), http://e-discoveryteam.com/2012/07/01/day-one-of-a-predictive-coding-narrative-searching-for-relevance-in-the-ashes-of-enron/ (last visited Dec. 6, 2013); Ralph Losey, Day Two of a Predictive Coding Narrative: More than a random stroll down memory lane, e-Discovery Team (July 8, 2012, 8:36pm) http://e-discoveryteam.com/2012/07/08/day-two-of-a-predictive-coding-narrative-more-than-a-random-stroll-down-memory-lane/ (last visited Dec. 6, 2013); Ralph Losey, Days Three and Four of a Predictive Coding Narrative: Where I find the computer is free to disagree, e-Discovery Team (July 15, 2012, 6:13am) http://e-discoveryteam.com/2012/07/15/days-three-and-four-of-a-predictive-coding-narrative-where-i-find-that-the-computer-is-free-to-disagree/ (last visited Dec. 6, 2013); Ralph Losey, Days Five and Six of a Predictive Coding Narrative:...
Losey begins his discussion by detailing the above mentioned problems and preparing the reader for a “blow-by-blow, detailed description of a large legal search and review project of any kind, much less a predictive coding project.” Losey uses a sample set of 699,082 employee emails and attachments associated with the scandal surrounding the 2001 bankruptcy of the Enron Corporation to look for any evidence relating to involuntary terminations. The entire dataset consisted of approximately 43 GB of emails and attachments, although the analysis excluded any foreign language documents.58

Losey focused his search efforts on determining the discrepancies between voluntary and involuntary terminations. The entire technology assisted review took nine days to complete. This article will discuss his findings chronologically. Losey began by orienting himself with the program and selecting five categories for the computer to list the documents in. These categories consisted of (1) irrelevant, (2) undetermined, (3) relevant, (4) highly relevant, as a subset of relevant, and (5) privileged. Next, a random sample of 1,507 documents was prepared

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56 Id.
57 Id.
58 Id.
59 Id.
60 Id.
61 It should be noted that a sample size of 1,065 documents would have been sufficient for the initial training set, but the oversampling yields stronger results while “not add[ing] that much to the cost.” Id.
by the predictive coding software for Losey to personally review and categorize into the above categories. This review only yielded two relevant documents. Upon the completion of Losey’s review of this first seed set, the predictive coding software was ready to make a first pass at the entire dataset.

The percentage of relevant documents is known as the “prevalence,” “density rate” or “yield.” For this first seed set, the prevalence was approximately 0.13%, suggesting that there exist 928 \((0.0013 \times 699082 = 928)\) relevant documents in the entire dataset, although with a ±3% confidence interval this number could be as high as 21,881 \((3.0013 \times 699028 = 21881)\). “This number represents a loose target or general goal for the search” and, while it is not required in a technology assisted review, Losey suggests calculating this value as a best practice.

Losey began the following day by reviewing the 711 documents that contained the word “firing.” Interestingly, Enron employees used the word “firing” to refer to starting a coal furnace, yielding many false positives. This is an excellent illustration of why technology assisted review is technology assisted review; a computer is not able recognize the “flexibility of language.”

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62 Id.
63 Id.
64 Id.
65 Id.; William Webber, an information scientist and private consultant corrected Losey’s initial determination of the likely amount of relevant documents in the entire dataset by adding the following: “On the width of the actual confidence interval, you can’t directly apply the +/- 3%, as it refers to the worst case width, that is, when estimated prevalence is 50%. For an estimate prevalence of 0.13% on a sample of 1,507, the exact 95% confidence interval is \([0.016\%, 0.479\%]\). Note that this is not simply a +/- interval; it is wider on the high side than on the low side. (Essentially, in a sample of 1,507, the chance that a true prevalence of 0.479\% would produce a sample yield of 2 or fewer is 2.5%, and the chance that a true prevalence of 0.016\% would produce a sample yield of 2 or more is 2.5%; thus, we have a \((100 – 2.5 – 2.5) = 95\%\) interval.” Losey states that as a practical matter, this distinction is minor.
66 Id.
Losey then used a suite of tools to conduct what he refers to as a “multimodal” search plan. This included searching through the entire dataset using a Parametric Boolean Keyword search, a standard keyword search algorithm; a tool included in the software for identifying near-identical documents; and another tool included in the software for identifying good “training document” candidates. The tool for identifying near-identical documents brought the total number of identified relevant documents to 26, including one highly relevant document.

The third day of Losey’s analysis was spent on running the auxiliary searches listed above on the 26 relevant documents, yielding about 1,500 additional documents which, after review, brought the total of relevant documents to 55, plus an additional 8 highly relevant documents. Losey then searched through additional documents that the computer believed were associated with the additional 8 highly relevant documents, parsing those documents through various filters entitled such things as: “duplicates,” “threads and attachments,” and “near-duplicates,” among other things. As the name states, the “duplicates” filter searched the entire dataset for any documents that are identical to a document that is being analyzed. The “thread” search filter provided the entire email chain that the relevant document was a part of. Due to the nature of the documents being searched (emails), the thread search filter produced many relevant results since any email that is relevant is likely to be part of an entire relevant email

68 Losey does state that his multimodal approach is not universally accepted and that there exists a school of thought that favors computer-review over human-review.
70 Ralph Losey, Days Three and Four of a Predictive Coding Narrative: Where I find the computer is free to disagree, e-Discovery Team (July 15, 2012, 6:13am) http://e-discoveryteam.com/2012/07/15/days-three-and-four-of-a-predictive-coding-narrative-where-i-find-that-the-computer-is-free-to-disagree/ (last visited Dec. 6, 2013).
71 Id.
73 Id.
chain. Note that Losey did not specify whether he marked any attachments as relevant, which could have affected on the accuracy of his relevancy determinations (e.g. an attachment might give context to an email rendering it relevant or irrelevant). After 3 hours of review by Losey, this search yielded an additional 6 highly relevant documents. Upon the identification of these documents, the computer was instructed to create another sampling to be used as an additional training set. After this process yielded 6 additional relevant documents, a training set was created by the computer including a mix of random documents and documents marked by Losey.

On the fifth day of review, Losey noted that this third training iteration failed to allow the computer to parse through the “grey areas” of relevancy. These endeavors brought Losey’s total billable hours to 25. The sixth day consisted of running the previously identified documents through the same filters that were used on the fourth day of Losey’s analysis. At the end of the sixth day, 289 relevant documents had been identified.

One the seventh day, Losey ran another training session, personally analyzing a group of 200 documents, 90% of which the computer believed to fall into a grey area and also expanded the parameters of the underlying keyword search to include the terms “severance,” “layoff,” and “laid off.” After the documents produced by these efforts were sorted into the proper categories, adding hundreds of more training documents, a fourth training round was commenced.

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74 Id.
75 Ralph Losey, Days Three and Four of a Predictive Coding Narrative: Where I find the computer is free to disagree, e-Discovery Team (July 15, 2012, 6:13am) http://e-discoveryteam.com/2012/07/15/days-three-and-four-of-a-predictive-coding-narrative-where-i-find-that-the-computer-is-free-to-disagree/ (last visited Dec. 6, 2013).
76 Id.
77 Id.
78 Id.
79 Id.
80 Id.
81 Ralph Losey, Days Seven and Eight of a Predictive Coding Narrative: Where I have another hybrid mind meld and discover the computer does not know god, e-Discovery Team (July 29, 2012, 5:10pm) http://e-
At this point, the computer was getting better at finding relevant documents, although only 415 relevant documents had been identified – a number well short of the 928 initially predicted. Further, Losey noted that at this point, the computer is beginning to identify documents that Losey had not considered (e.g. Documents pertaining to bankruptcy firings). However, because the computer was getting better at predicting relevancy, Losey’s input had to be more nuanced in order to allow the computer to distinguish between documents that were not clearly relevant or irrelevant. After another training session, Losey decided that, barring the final search turning up significant false-negatives, his technology assisted review would be complete. As Losey notes, “[r]easonable efforts are required, not perfection.”

At this point, over the course of 9 days and merely 52 billable hours, a dataset of 699,082 documents was searched by one man assisted by technology.

Losey opined that even at double his normal billable hourly rate, predictive coding will save the client 92% over an attorney personally reviewing the documents at $250/hour. Note that there is an important caveat regarding Losey’s calculation – that it did not include the costs associated with the vendor hosting the files or the actual cost of using the software. That being said, Losey noted that the aforementioned “92% savings is not possible under real world conditions,” but he suggested that predictive coding realistically offers between 50% and 75% savings.
III. RELEVANT CASE LAW ADDRESSING PREDICTIVE CODING

This section discusses the court’s treatment of the interplay of technology assisted review and eDiscovery. As a threshold matter, it is pertinent to note that the below analyzed cases were decided under the current Rule 26, where the scope of production should be proportional to the needs of the case only when ordered by the court.\(^88\) The fact that the current Rule 26 was in effect at the time the below cases were decided does not affect the below analyses. This paper now lays out, chronologically, the relevant caselaw.


This has quickly become the landmark case regarding the use of predictive coding, primarily due to the outspoken support of predictive coding by Federal Magistrate Judge Peck, the Magistrate assigned to this case. The legal community’s reliance on this case is further evidenced by the extensive treatment the Court gave predictive coding therein.\(^89\)

*Da Silva Moore* was a federal employment discrimination case brought alleging that Publicis Groupe, a large advertising and public relations firm, and its American subsidiary, MSLGroup Americas (“MSL”), were reserving senior management positions for male employees only.\(^90\) Da Silva Moore was a female employed at MSL for six years.\(^91\) Throughout those years she was promoted from “director” to “managing director” to “global director;” however, despite her advancing to seemingly more impressive titles, her positions never garnered any real power.\(^92\) In fact, not only was she not given any real power, but upon returning from

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\(^91\) *Id.* at 6.
\(^92\) *Id.*
maternity leave, she was promptly terminated.\textsuperscript{93} Upon said termination, Da Silva Moore brought a class action suit against the PR firm on behalf of all females employed in Publicis’ public relations group.\textsuperscript{94} 

Defendants intended to utilize predictive coding to limit their cost of production to no more than $200,000.\textsuperscript{95} Plaintiffs generally agreed that Defendants should be allowed to use predictive coding; however, there were serious disagreements as to what protocols were to be implemented.\textsuperscript{96} Some of these disputes were solved by a Judge-ordered compromise, but in other instances the Court held that certain requests would be treated more appropriately with alternative methods of production (i.e. something other than predictive coding). One such example dealt with the files of MSL’s CEO, which were primarily in French.\textsuperscript{97} Due to the difficulties in establishing relevancy determinations across languages, the CEO’s documents were removed from the scope of predictive coding.\textsuperscript{98} 

One law review article contended that “[a]lthough Judge Peck emphasized in his decision that the Plaintiffs were not adamantly opposed to all forms of predictive coding, it is clear that his specific order regarding the use of predictive coding was made over Plaintiff’s frequently repeated objections.”\textsuperscript{99} That being said, Judge Peck emphasized that parties should strive to work together in finding acceptable parameters.\textsuperscript{100} Further, Judge Peck made no representations that the use of predictive coding complies with the scope of Rule 26.\textsuperscript{101} This question remained

\textsuperscript{93} Id.  
\textsuperscript{94} See Id.  
\textsuperscript{96} See generally Transcript of Feb. 8, 2012 Conference.  
\textsuperscript{97} See Id. at 32-35.  
\textsuperscript{98} See Id. at 75-77, 83-84.  
\textsuperscript{101} See Da Silva Moore II, No. 11-cv-1279, 2012 WL 607412, at *7 (S.D.N.Y. 2012).
unsolved at the time this article was written, although the following cases begin to tease out the important issues.

However, despite these unanswered questions, *Da Silva Moore* still serves as an authority in a glut of opinions grappling with the use of predictive coding in litigation. This is because Judge Peck’s opinion was “the first federal case where Predictive Coding use will be adopted by both the court and the parties…” Thus, future cases involving predictive coding, discussed *supra*, turn to *Da Silva Moore* for guidance.


Here, three hangars in the Dulles, VA airport collapsed during a snowstorm. This case is the consolidation of a number of lawsuits arising out of that incident. In complying with initial discovery requests, Landow moved the Court for an order allowing it to use predictive coding after a number of Plaintiffs argued against their use. As part of Landow’s motion, they agreed to produce the seed set as well as logs of privileged and sensitive documents. This disclosure would enable Plaintiffs to object to any of the parameters used in the predictive coding analysis. In support of its motion, Landow argued that they could produce more relevant documents at a fraction of the cost and a fraction of the time. Plaintiffs argued that while technology assisted review can expedite the discovery process, it should supplement traditional proceedings, not replace them.

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104 Id. at 1.
105 Id. at 11-13.
106 Id.; see also Id. at 9-11; [The Sedona Conference, The Sedona Conference Best Practices Commentary on the Use of Search and Information Retrieval Methods in E-Discovery, 8 Sedona Conf. J. 189, 218 (2007)].
Ultimately, in allowing Landow to use predictive coding, Judge Chamblin cited the Sedona Principles. However, Judge Chamblin, like Judge Peck in Da Silva Moore, left the door open for Plaintiffs to challenge the “completeness or the contents of the production” later in the litigation.


This case involves a Sherman Act antitrust action against Packaging Corporation of America, a manufacturer of corrugated cardboard. As part of the initial discovery productions, the Plaintiffs motioned for an order mandating that the Defendants use alternative technology (e.g. predictive coding) as part of their initial productions as opposed to mere keyword searching. Of note here is that when Plaintiffs moved the court, Defendants had already produced a significant amount of documents in accordance with the original discovery plan.

In determining whether to order the Defendants to use predictive coding, Judge Nolan heard reports from experts about the adequacy of the Defendant’s production. Judge Nolan, like Judge Peck in Da Silva Moore, stressed that the parties should work together to determine how discovery of ESI should proceed, stating that a “mutually agreeable approach based on what Defendants had already implemented was preferable” to starting from scratch. Ultimately,
Judge Nolan based her decision on the Sedona Conference Guidelines,\(^{115}\) noting that accuracy and quality are what should be strived for in assessing the sufficiency of discovery productions.\(^{116}\) Therefore, Judge Nolan held that predictive coding need not be applied to anything that had been previously produced, but left the door open to apply predictive coding to future discovery requests.

*Kleen Products* shows that while the court has a favorable position regarding the use of predictive coding, it will not bend over backwards to allow its use, particularly when the parties have already agreed to alternative parameters to identify and produce relevant ESI. This is, in part, due to the undue burdens that the defendant would have to bear by repeating their entire eDiscovery process from scratch.


This action pertains to a commercial indemnification dispute regarding the sale of a Hooters™ restaurant chain.\(^{117}\) This case is unique because it was the first instance of a court ordering, *sua sponte*, the use of predictive coding.\(^{118}\) Not only did Vice Chancellor Laster order that the two parties use predictive coding, but he also ordered that both parties use the same vendor.\(^{119}\) In endorsing the use of predictive coding on a motion for summary judgment, Vice


Chancellor Laster wrote, “I would like you all, if you do not want to use predictive coding, to show cause why this is not a case where predictive coding is the way to go.”\textsuperscript{120}

This case is important, not merely for its implementation of predictive coding, but also as a showing of yet another state court strongly endorsing its use. This is particularly important because the Delaware chancery court is one of the most active business dockets in the nation, indicating that Vice Chancellor Laster’s endorsements will have meaningful consequences on a national scale.\textsuperscript{121}

\textbf{E. In re Biomet M2a Magnum Hip Implant Products Liability Litigation, No. 3:12-MD-2391, 2013 WL 1729682 (N.D. Indiana April 18, 2013)}

In this consolidated products liability litigation, Judge Miller rejected the Plaintiffs’ demand to redo the Defendant’s discovery production halfway through the discovery process.\textsuperscript{122} The Defendant had originally culled its potentially responsive documents from 19.5 million to 3.9 million through simple keyword searches.\textsuperscript{123} Defendants then removed all duplicate documents to reduce the number of potentially relevant documents to 2.5 million.\textsuperscript{124} Predictive coding was then run on the remaining 2.5 million documents. Halfway through this process, Plaintiffs moved the court to have predictive coding applied to the entire dataset, which consisted of 19.5 million documents.\textsuperscript{125}

In rejecting Plaintiff’s motion, Judge Miller noted that “[t]he issue before me today isn’t whether predictive coding is a better way of doing things than keyword searching prior to


\textsuperscript{122} \textit{See In re Biomet M2a Magnum Hip Implant Products Liability Litigation, No. 3:12-MD-2391, 2013 WL 1729682 (N.D. Indiana April 18, 2013)}.

\textsuperscript{123} \textit{Id.} at *1.

\textsuperscript{124} \textit{Id.}

\textsuperscript{125} \textit{Id.} at *2.
predictive coding. I must decide whether Biomet’s procedure satisfies its discovery obligations and, if so, whether it must also do what the [Plaintiffs seek].”

Informing Judge Miller’s decision were Rules 26(b) and 34(b)(2), as well as the Sedona Guidelines. Judge Miller found that Biomet “complies fully with the requirements of Federal Rules of Civil Procedure 26(b) and 34(b)(2).” Further, Judge Miller noted that Biomet’s actions in responding to the Plaintiffs’ discovery requests did not run afoul of the Sedona Guidelines either. The Plaintiffs’ “request that Biomet go back to Square One…and institute predictive coding at that earlier stage sits uneasily with the proportionality standard in Rule 26(b)(2)(C).” Thus, the Plaintiffs’ motion was denied and the Defendants were allowed to proceed with discovery as planned. However, while Judge Miller held in favor of proceeding with discovery as the parties originally planned, he noted that the Plaintiffs’ argument to restart the discovery proceedings “could carry the day in some cases, but this one doesn’t seem to be such a case.”

This case is another good illustration of how, while courts do seem to highly favor predictive coding, they are reluctant to order predictive coding once a discovery plan has been agreed upon by both parties and has begun to be implemented. Further, this case underscores the considerations present in the proposed amendments to Rule 26.


This case is another consolidation, this time of pretrial proceedings from eleven different civil actions across multiple districts. Here, Plaintiffs allege that Defendants attempted to conceal the fact that one of their products, a type-2 diabetes drug, increases users’ risk of

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126 Id.
127 Id.
128 Id.
129 Id.
130 Id. at *3.
developing bladder cancer.\textsuperscript{132} After meeting with a Special Master, both parties agreed that the seed set should be built from “the custodial files of 43 individuals who are (or were) members of the sales forces of Takeda and Lilly.”\textsuperscript{133}

In arriving at the appropriate scope of discovery, the Court assessed four factors; (1) the needs of the case and the importance of the issues at stake in the action, (2) the amount in controversy, (3) the parties’ resources, and (4) the importance of this discovery in resolving the issues.\textsuperscript{134} Further, the Court recognized the undue expense and burden of allowing the Plaintiffs to have full reign over the scope of what should be produced.\textsuperscript{135}

This litigation is worth noting for its high level of detail regarding the protocol that the parties must follow during discovery.\textsuperscript{136} Further, the discovery order expressly lays out the details of how the predictive coding process will actually be implemented.\textsuperscript{137} \textit{In re Actos} is an exemplary display of the Court’s desire to have the parties arrive at an acceptable discovery plan together while minimizing the time and expense associated with producing the relevant ESI.

While the above cases have had the benefit of predictive coding, many more cases go through the eDiscovery process without any sort of technology assisted review. As noted in the Introduction, \textit{infra}, requests for, and the production of, ESI has been greatly abused. The proposed amendments to the Federal Rules of Civil Procedure regarding discovery, discussed \textit{supra}, hope to address some of these issues without the use predictive coding technology.

\textsuperscript{132} Id.
\textsuperscript{134} Id. at *4.
\textsuperscript{135} Id. at *3.
IV. THE MERITS OF THE PROPOSED AMENDMENTS TO RULE 26 INFORMED BY PRACTICAL CONSIDERATIONS

Throughout America’s history, the Federal Rules of Civil Procedure have been amended to stay relevant as well as facilitate the judicial process. While the most recent amendments to the Rules were in 2006, the aforementioned proposed amendments are currently awaiting Congress’ approval.138

Rule 26, as was mentioned above, is the Federal Rule of Civil Procedure that governs the scope of initial productions in discovery.139 While this article only examines the Federal Rules, many states will likely adopt the revisions to the Federal Rules within their own State Rules of Civil Procedure. The above proposed amendments have two goals in mind – early and effective case management and reducing the cost of discovery (i.e. eDiscovery) by maintaining proportionality.140

The amendments set out to achieve these goals in a number of ways. First is the linking of Rule 26(f) with Federal Rule of Evidence 502. The inclusion of a provision in Rule 26(f) that requires adversaries to agree to a system of asserting attorney-client privilege over accidently produced documents lessens the risk of involuntarily waiving the privilege. This further reduces the costs associated with reviewing documents.

Second, this type of practice is in line with the case law discussion in Part III, infra, since the cases focus on cooperation between the parties and avoiding undue expense. As the

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138 See supra, Appendix B for the full text of the proposed amendments.
committee notes state, pursuant to the Rule 26(f) amendment, “[c]oncrete disputes as to the scope of discovery could then be brought to the attention of the court at a Rule 16 conference.”

Third, regarding cost-reduction considerations, by allowing the courts to, on their own volition and without motion, limit the scope of discovery with the cost-benefit analysis of current Rule 26(b)(2)(C)(iii), the costs associated with assembling and processing large amounts of ESI could be tempered. Without having to seek a court order to reasonably limit the scope, from the beginning of discovery the costs associated with discovery can be inhibited. According to a “large-scale closed-case study done by the Federal Judicial Center for the Duke Conference…[the rule] is not invoked often enough to damped excessive discovery demands.” This proposition is bolstered by the fact that court-controlled discovery is now authorized to extend to “any matter relevant to the subject matter involved in the action.” While procedure is important, as the scale of litigation grows, the rules must adapt to help prevent further congestion on an already crammed judicial docket. For this reason, as well as the cost-reducing aspect of moving Rule 26(b)(2)(C)(ii), this amendment is warranted.

Regarding Rule 34, the committee notes state that the proposed amendments are “aimed at reducing the potential to impose unreasonable burden by objections to requests to produce.” In sum, the largest change to Rule 34 relates to the amount and type of information that a party must include in an objection to a given discovery request. This is embodied in the addition of language that requires that objections be stated “with specificity.”

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142 Id. at 10.
143 Id. at 11.
145 Id. at 12.
The aforementioned proposed amendments take a much needed step towards stopping abuse of the American discovery system. By amending the rules to emphasize that a Judge should limit the scope of discovery, the Judicial Advisory Committee not only puts litigants on notice that overly broad eDiscovery requests will not be tolerated, but also informs federal courts that affirmative measures should be taken to prevent this abuse. Given the congestion on the federal docket and the incredible expense associated with large litigations, this amendment is appropriate.

Further, by mandating that a party objecting to a discovery request must do so with particularity, the proposed amendments undercut any attempt to raise frivolous objections, and force an objecting party to not only object with particularity, but to also propose an acceptable alternative. This will certainly speed up the already lengthy discovery process and, as such, this proposition is also warranted.

CONCLUSION

This article examined two potential solutions to the current abuse of eDiscovery – one by vendors of technology assisted review, the other by the legislative branch. While the two parties take different approaches to addressing this issue, both target the proportionality requirements of Rule 26. The two approaches might seem at odds with each other, but in fact, the use of technology assisted review falls squarely within the proposed amendments to Rules 26 and 34 of the Federal Rules of Civil Procedure. That being said, technology assisted review has yet to be addressed by any United States Court of Appeals, and the proposed amendments to the Federal Rules of Civil Procedure have yet to be adopted. Thus, only the passage of time will allow a legal scholar to know the full effect of these two approaches, but this author is hopeful that they will be able to quell the malfeasance in modern eDiscovery practice.
APPENDIX A

Rule 26. Duty to Disclose; General Provision Governing Discovery

(a) REQUIRED DISCLOSURES.

(1) Initial Disclosure.

(A) In General. Except as exempted by Rule 26(a)(1)(B) or as otherwise stipulated or ordered by the court, a party must, without awaiting a discovery request, provide to the other parties:

(i) the name and, if known, the address and telephone number of each individual likely to have discoverable information—along with the subjects of that information—that the disclosing party may use to support its claims or defenses, unless the use would be solely for impeachment;

(ii) a copy—or a description by category and location—of all documents, electronically stored information, and tangible things that the disclosing party has in its possession, custody, or control and may use to support its claims or defenses, unless the use would be solely for impeachment;

(iii) a computation of each category of damages claimed by the disclosing party—who must also make available for inspection and copying as under Rule 34 the documents or other evidentiary material, unless privileged or protected from disclosure, on which each computation is based, including materials bearing on the nature and extent of injuries suffered; and

(iv) for inspection and copying as under Rule 34, any insurance agreement under which an insurance business may be liable to satisfy all or part of a possible judgment in the action or to indemnify or reimburse for payments made to satisfy the judgment.

(B) Proceedings Exempt from Initial Disclosure. The following proceedings are exempt from initial disclosure:

(i) an action for review on an administrative record;

(ii) a forfeiture action in rem arising from a federal statute;

(iii) a petition for habeas corpus or any other proceeding to challenge a criminal conviction or sentence;

(iv) an action brought without an attorney by a person in the custody of the United States, a state, or a state subdivision;

(v) an action to enforce or quash an administrative summons or subpoena;

(vi) an action by the United States to recover benefit payments;

(vii) an action by the United States to collect on a student loan guaranteed by the United States;
(viii) a proceeding ancillary to a proceeding in another court; and

(ix) an action to enforce an arbitration award.

(C) Time for Initial Disclosures—In General. A party must make the initial disclosures at or within 14 days after the parties’ Rule 26(f) conference unless a different time is set by stipulation or court order, or unless a party objects during the conference that initial disclosures are not appropriate in this action and states the objection in the proposed discovery plan. In ruling on the objection, the court must determine what disclosures, if any, are to be made and must set the time for disclosure.

(D) Time for Initial Disclosures—For Parties Served or Joined Later. A party that is first served or otherwise joined after the Rule 26(f) conference must make the initial disclosures within 30 days after being served or joined, unless a different time is set by stipulation or court order.

(E) Basis for Initial Disclosure; Unacceptable Excuses. A party must make its initial disclosures based on the information then reasonably available to it. A party is not excused from making its disclosures because it has not fully investigated the case or because it challenges the sufficiency of another party's disclosures or because another party has not made its disclosures.

(2) Disclosure of Expert Testimony.

(A) In General. In addition to the disclosures required by Rule 26(a)(1), a party must disclose to the other parties the identity of any witness it may use at trial to present evidence under Federal Rule of Evidence 702, 703, or 705.

(B) Witnesses Who Must Provide a Written Report. Unless otherwise stipulated or ordered by the court, this disclosure must be accompanied by a written report—prepared and signed by the witness—if the witness is one retained or specially employed to provide expert testimony in the case or one whose duties as the party's employee regularly involve giving expert testimony. The report must contain:

(i) a complete statement of all opinions the witness will express and the basis and reasons for them;

(ii) the facts or data considered by the witness in forming them;

(iii) any exhibits that will be used to summarize or support them;

(iv) the witness's qualifications, including a list of all publications authored in the previous 10 years;

(v) a list of all other cases in which, during the previous 4 years, the witness testified as an expert at trial or by deposition; and

(vi) a statement of the compensation to be paid for the study and testimony in the case.
(C) **Witnesses Who Do Not Provide a Written Report.** Unless otherwise stipulated or ordered by the court, if the witness is not required to provide a written report, this disclosure must state:

(i) the subject matter on which the witness is expected to present evidence under Federal Rule of Evidence 702, 703, or 705; and

(ii) a summary of the facts and opinions to which the witness is expected to testify.

(D) **Time to Disclose Expert Testimony.** A party must make these disclosures at the times and in the sequence that the court orders. Absent a stipulation or a court order, the disclosures must be made:

(i) at least 90 days before the date set for trial or for the case to be ready for trial; or

(ii) if the evidence is intended solely to contradict or rebut evidence on the same subject matter identified by another party under Rule 26(a)(2)(B) or (C), within 30 days after the other party's disclosure.

(E) **Supplementing the Disclosure.** The parties must supplement these disclosures when required under Rule 26(e).

(3) **Pretrial Disclosures.**

(A) **In General.** In addition to the disclosures required by Rule 26(a)(1) and (2), a party must provide to the other parties and promptly file the following information about the evidence that it may present at trial other than solely for impeachment:

(i) the name and, if not previously provided, the address and telephone number of each witness—separately identifying those the party expects to present and those it may call if the need arises;

(ii) the designation of those witnesses whose testimony the party expects to present by deposition and, if not taken stenographically, a transcript of the pertinent parts of the deposition; and

(iii) an identification of each document or other exhibit, including summaries of other evidence—separately identifying those items the party expects to offer and those it may offer if the need arises.

(B) **Time for Pretrial Disclosures; Objections.** Unless the court orders otherwise, these disclosures must be made at least 30 days before trial. Within 14 days after they are made, unless the court sets a different time, a party may serve and promptly file a list of the following objections: any objections to the use under Rule 32(a) of a deposition designated by another party under Rule 26(a)(3)(A)(ii); and any objection, together with the grounds for it, that may be made to the admissibility of materials identified under Rule 26(a)(3)(A)(iii). An objection not so made—except for one under Federal Rule of Evidence 402 or 403—is waived unless excused by the court for good cause.
(4) *Form of Disclosures.* Unless the court orders otherwise, all disclosures under Rule 26(a) must be in writing, signed, and served.

(b) **DISCOVERY SCOPE AND LIMITS.**

(1) *Scope in General.* Unless otherwise limited by court order, the scope of discovery is as follows: Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party's claim or defense—including the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter. For good cause, the court may order discovery of any matter relevant to the subject matter involved in the action. Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence. All discovery is subject to the limitations imposed by Rule 26(b)(2)(C).

(2) *Limitations on Frequency and Extent.*

(A) *When Permitted.* By order, the court may alter the limits in these rules on the number of depositions and interrogatories or on the length of depositions under Rule 30. By order or local rule, the court may also limit the number of requests under Rule 36.

(B) *Specific Limitations on Electronically Stored Information.* A party need not provide discovery of electronically stored information from sources that the party identifies as not reasonably accessible because of undue burden or cost. On motion to compel discovery or for a protective order, the party from whom discovery is sought must show that the information is not reasonably accessible because of undue burden or cost. If that showing is made, the court may nonetheless order discovery from such sources if the requesting party shows good cause, considering the limitations of Rule 26(b)(2)(C). The court may specify conditions for the discovery.

(C) *When Required.* On motion or on its own, the court must limit the frequency or extent of discovery otherwise allowed by these rules or by local rule if it determines that:

(i) the discovery sought is unreasonably cumulative or duplicative, or can be obtained from some other source that is more convenient, less burdensome, or less expensive;

(ii) the party seeking discovery has had ample opportunity to obtain the information by discovery in the action; or

(iii) the burden or expense of the proposed discovery outweighs its likely benefit, considering the needs of the case, the amount in controversy, the parties’ resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.

(3) *Trial Preparation: Materials.*

(A) *Documents and Tangible Things.* Ordinarily, a party may not discover documents and tangible things that are prepared in anticipation of litigation or for trial by or for another party or its representative (including the other party’s attorney, consultant, surety, indemnitor, insurer, or agent). But, subject to Rule 26(b)(4), those materials may be discovered if:
(i) they are otherwise discoverable under Rule 26(b)(1); and

(ii) the party shows that it has substantial need for the materials to prepare its case and cannot, without undue hardship, obtain their substantial equivalent by other means.

(B) Protection Against Disclosure. If the court orders discovery of those materials, it must protect against disclosure of the mental impressions, conclusions, opinions, or legal theories of a party's attorney or other representative concerning the litigation.

(C) Previous Statement. Any party or other person may, on request and without the required showing, obtain the person's own previous statement about the action or its subject matter. If the request is refused, the person may move for a court order, and Rule 37(a)(5) applies to the award of expenses. A previous statement is either:

(i) a written statement that the person has signed or otherwise adopted or approved; or

(ii) a contemporaneous stenographic, mechanical, electrical, or other recording—or a transcription of it—that recites substantially verbatim the person's oral statement.

(4) Trial Preparation: Experts.

(A) Deposition of an Expert Who May Testify. A party may depose any person who has been identified as an expert whose opinions may be presented at trial. If Rule 26(a)(2)(B) requires a report from the expert, the deposition may be conducted only after the report is provided.

(B) Trial-Preparation Protection for Draft Reports or Disclosures. Rules 26(b)(3)(A) and (B) protect drafts of any report or disclosure required under Rule 26(a)(2), regardless of the form in which the draft is recorded.

(C) Trial-Preparation Protection for Communications Between a Party's Attorney and Expert Witnesses. Rules 26(b)(3)(A) and (B) protect communications between the party's attorney and any witness required to provide a report under Rule 26(a)(2)(B), regardless of the form of the communications, except to the extent that the communications:

(i) relate to compensation for the expert's study or testimony;

(ii) identify facts or data that the party's attorney provided and that the expert considered in forming the opinions to be expressed; or

(iii) identify assumptions that the party's attorney provided and that the expert relied on in forming the opinions to be expressed.

(D) Expert Employed Only for Trial Preparation. Ordinarily, a party may not, by interrogatories or deposition, discover facts known or opinions held by an expert who has been retained or specially employed by another party in anticipation of litigation or to prepare for trial and who is not expected to be called as a witness at trial. But a party may do so only:

(i) as provided in Rule 35(b); or
(ii) on showing exceptional circumstances under which it is impracticable for the party to obtain facts or opinions on the same subject by other means.

(E) **Payment.** Unless manifest injustice would result, the court must require that the party seeking discovery:

(i) pay the expert a reasonable fee for time spent in responding to discovery under Rule 26(b)(4)(A) or (D); and

(ii) for discovery under (D), also pay the other party a fair portion of the fees and expenses it reasonably incurred in obtaining the expert's facts and opinions.

(5) **Claiming Privilege or Protecting Trial-Preparation Materials.**

(A) **Information Withheld.** When a party withholds information otherwise discoverable by claiming that the information is privileged or subject to protection as trial-preparation material, the party must:

(i) expressly make the claim; and

(ii) describe the nature of the documents, communications, or tangible things not produced or disclosed—and do so in a manner that, without revealing information itself privileged or protected, will enable other parties to assess the claim.

(B) **Information Produced.** If information produced in discovery is subject to a claim of privilege or of protection as trial-preparation material, the party making the claim may notify any party that received the information of the claim and the basis for it. After being notified, a party must promptly return, sequester, or destroy the specified information and any copies it has; must not use or disclose the information until the claim is resolved; must take reasonable steps to retrieve the information if the party disclosed it before being notified; and may promptly present the information to the court under seal for a determination of the claim. The producing party must preserve the information until the claim is resolved.

(c) **PROTECTIVE ORDERS.**

(1) **In General.** A party or any person from whom discovery is sought may move for a protective order in the court where the action is pending—or as an alternative on matters relating to a deposition, in the court for the district where the deposition will be taken. The motion must include a certification that the movant has in good faith conferred or attempted to confer with other affected parties in an effort to resolve the dispute without court action. The court may, for good cause, issue an order to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense, including one or more of the following:

(A) forbidding the disclosure or discovery;

(B) specifying terms, including time and place, for the disclosure or discovery;

(C) prescribing a discovery method other than the one selected by the party seeking discovery;
(D) forbidding inquiry into certain matters, or limiting the scope of disclosure or discovery to certain matters;

(E) designating the persons who may be present while the discovery is conducted;

(F) requiring that a deposition be sealed and opened only on court order;

(G) requiring that a trade secret or other confidential research, development, or commercial information not be revealed or be revealed only in a specified way; and

(H) requiring that the parties simultaneously file specified documents or information in sealed envelopes, to be opened as the court directs.

(2) Ordering Discovery. If a motion for a protective order is wholly or partly denied, the court may, on just terms, order that any party or person provide or permit discovery.

(3) Awarding Expenses. Rule 37(a)(5) applies to the award of expenses.

(d) TIMING AND SEQUENCE OF DISCOVERY.

(1) Timing. A party may not seek discovery from any source before the parties have conferred as required by Rule 26(f), except in a proceeding exempted from initial disclosure under Rule 26(a)(1)(B), or when authorized by these rules, by stipulation, or by court order.

(2) Sequence. Unless, on motion, the court orders otherwise for the parties’ and witnesses’ convenience and in the interests of justice:

(A) methods of discovery may be used in any sequence; and

(B) discovery by one party does not require any other party to delay its discovery.

(e) SUPPLEMENTING DISCLOSURES AND RESPONSES.

(1) In General. A party who has made a disclosure under Rule 26(a)—or who has responded to an interrogatory, request for production, or request for admission—must supplement or correct its disclosure or response:

(A) in a timely manner if the party learns that in some material respect the disclosure or response is incomplete or incorrect, and if the additional or corrective information has not otherwise been made known to the other parties during the discovery process or in writing; or

(B) as ordered by the court.

(2) Expert Witness. For an expert whose report must be disclosed under Rule 26(a)(2)(B), the party's duty to supplement extends both to information included in the report and to information given during the expert's deposition. Any additions or changes to this information must be disclosed by the time the party's pretrial disclosures under Rule 26(a)(3) are due.
(f) **CONFERENCE OF THE PARTIES; PLANNING FOR DISCOVERY.**

(1) **Conference Timing.** Except in a proceeding exempted from initial disclosure under Rule 26(a)(1)(B) or when the court orders otherwise, the parties must confer as soon as practicable—and in any event at least 21 days before a scheduling conference is to be held or a scheduling order is due under Rule 16(b).

(2) **Conference Content; Parties’ Responsibilities.** In conferring, the parties must consider the nature and basis of their claims and defenses and the possibilities for promptly settling or resolving the case; make or arrange for the disclosures required by Rule 26(a)(1); discuss any issues about preserving discoverable information; and develop a proposed discovery plan. The attorneys of record and all unrepresented parties that have appeared in the case are jointly responsible for arranging the conference, for attempting in good faith to agree on the proposed discovery plan, and for submitting to the court within 14 days after the conference a written report outlining the plan. The court may order the parties or attorneys to attend the conference in person.

(3) **Discovery Plan.** A discovery plan must state the parties’ views and proposals on:

   (A) what changes should be made in the timing, form, or requirement for disclosures under Rule 26(a), including a statement of when initial disclosures were made or will be made;

   (B) the subjects on which discovery may be needed, when discovery should be completed, and whether discovery should be conducted in phases or be limited to or focused on particular issues;

   (C) any issues about disclosure or discovery of electronically stored information, including the form or forms in which it should be produced;

   (D) any issues about claims of privilege or of protection as trial-preparation materials, including—if the parties agree on a procedure to assert these claims after production—whether to ask the court to include their agreement in an order;

   (E) what changes should be made in the limitations on discovery imposed under these rules or by local rule, and what other limitations should be imposed; and

   (F) any other orders that the court should issue under Rule 26(c) or under Rule 16(b) and (c).

(4) ** Expedited Schedule.** If necessary to comply with its expedited schedule for Rule 16(b) conferences, a court may by local rule:

   (A) require the parties’ conference to occur less than 21 days before the scheduling conference is held or a scheduling order is due under Rule 16(b); and

   (B) require the written report outlining the discovery plan to be filed less than 14 days after the parties’ conference, or excuse the parties from submitting a written report and permit them to report orally on their discovery plan at the Rule 16(b) conference.

(g) **SIGNING DISCLOSURES AND DISCOVERY REQUESTS, RESPONSES, AND OBJECTIONS.**
(1) **Signature Required; Effect of Signature.** Every disclosure under Rule 26(a)(1) or (a)(3) and every discovery request, response, or objection must be signed by at least one attorney of record in the attorney's own name—or by the party personally, if unrepresented—and must state the signer's address, e-mail address, and telephone number. By signing, an attorney or party certifies that to the best of the person's knowledge, information, and belief formed after a reasonable inquiry:

   (A) with respect to a disclosure, it is complete and correct as of the time it is made; and

   (B) with respect to a discovery request, response, or objection, it is:

      (i) consistent with these rules and warranted by existing law or by a nonfrivolous argument for extending, modifying, or reversing existing law, or for establishing new law;

      (ii) not interposed for any improper purpose, such as to harass, cause unnecessary delay, or needlessly increase the cost of litigation; and

      (iii) neither unreasonable nor unduly burdensome or expensive, considering the needs of the case, prior discovery in the case, the amount in controversy, and the importance of the issues at stake in the action.

(2) **Failure to Sign.** Other parties have no duty to act on an unsigned disclosure, request, response, or objection until it is signed, and the court must strike it unless a signature is promptly supplied after the omission is called to the attorney's or party's attention.

(3) **Sanction for Improper Certification.** If a certification violates this rule without substantial justification, the court, on motion or on its own, must impose an appropriate sanction on the signer, the party on whose behalf the signer was acting, or both. The sanction may include an order to pay the reasonable expenses, including attorney's fees, caused by the violation.
APPENDIX B

Rule 26. Duty to Disclose; General Provisions; Governing Discovery

(b) DISCOVERY SCOPE AND LIMITS.

(1) Scope in General. Unless otherwise limited by court order, the scope of discovery is as follows: Parties may obtain discovery regarding any nonprivileged matter that is relevant to any party’s claim or defense and proportional to the needs of the case considering the amount in controversy, the importance of the issues at stake in the action, the parties’ resources, the importance of the discovery in resolving the issues, and whether the burden or expense of the proposed discovery outweighs its likely benefit. Information within this scope of discovery need not be admissible in evidence to be discoverable. —including the existence, description, nature, custody, condition, and location of any documents or other tangible things and the identity and location of persons who know of any discoverable matter. For good cause, the court may order discovery of any matter relevant to the subject matter involved in the action. Relevant information need not be admissible at the trial if the discovery appears reasonably calculated to lead to the discovery of admissible evidence. All discovery is subject to the limitations imposed by Rule 26(b)(2)(C).

(2) Limitations on Frequency and Extent.

(A) When Permitted. By order, the court may alter the limits in these rules on the number of depositions, and interrogatories, and requests for admissions, or on the length of depositions under Rule 30. By order or local rule, the court may also limit the number of requests under Rule 36.

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(C) When Required. On motion or on its own, the court must limit the frequency or extent of discovery otherwise allowed by these rules or by local rule if it determines that: * * *

(iii) the burden or expense of the proposed discovery is outside the scope permitted by Rule 26(b)(1) outweighs its likely benefit, considering the needs of the case, the amount in controversy, the parties’ resources, the importance of the issues at stake in the action, and the importance of the discovery in resolving the issues.

(c) PROTECTIVE ORDERS.

(1) In General. * * * The court may, for good cause, issue an order to protect a party or person from annoyance, embarrassment, oppression, or undue burden or expense, including one or more of the following: * * *

(B) specifying terms, including time and place or the allocation of expenses, for the disclosure or discovery;
(d) **TIMING AND SEQUENCE OF DISCOVERY.**

(1) Timing. A party may not seek discovery from any source before the parties have conferred as required by Rule 26(f), except:

(A) in a proceeding exempted from initial disclosure under Rule 26(a)(1)(B); or

(B) when authorized by these rules, including Rule 26(d)(2), by stipulation, or by court order.

(2) Early Rule 34 Requests.

(A) Time to Deliver. More than 21 days after the summons and complaint are served on a party, a request under Rule 34 may be delivered:

(i) to that party by any other party, and

(ii) by that party to any Plaintiff or to any other party that has been served.

(B) When Considered Served. The request is considered as served at the first Rule 26(f) conference.

(2) Sequence. Unless, **on motion,** the parties stipulate or the court orders otherwise for the parties’ and witnesses’ convenience and in the interests of justice:

(A) methods of discovery may be used in any sequence; and

(B) discovery by one party does not require any other party to delay its discovery. * * *

(f) **CONFERENCE OF THE PARTIES; PLANNING FOR DISCOVERY.**

(1) Conference Timing. Except in a proceeding exempted from initial disclosure under Rule 26(a)(1)(B) or * * *

(3) Discovery Plan. A discovery plan must state the parties’ views and proposals on: * * *

(C) any issues about disclosure, or discovery, or preservation of electronically stored information, including the form or forms in which it should be produced;

(D) any issues about claims of privilege or of protection as trial-preparation materials, including — if the parties agree on a procedure to assert these claims after production — whether to ask the court to include their agreement in an order under Federal Rule of Evidence 502;
APPENDIX C

(a) IN GENERAL. A party may serve on any other party a request within the scope of Rule 26(b):

(1) to produce and permit the requesting party or its representative to inspect, copy, test, or sample the following items in the responding party's possession, custody, or control:

(A) any designated documents or electronically stored information—including writings, drawings, graphs, charts, photographs, sound recordings, images, and other data or data compilations—stored in any medium from which information can be obtained either directly or, if necessary, after translation by the responding party into a reasonably usable form; or

(B) any designated tangible things; or

(2) to permit entry onto designated land or other property possessed or controlled by the responding party, so that the requesting party may inspect, measure, survey, photograph, test, or sample the property or any designated object or operation on it.

(b) PROCEDURE.

(1) Contents of the Request. The request:

(A) must describe with reasonable particularity each item or category of items to be inspected;

(B) must specify a reasonable time, place, and manner for the inspection and for performing the related acts; and

(C) may specify the form or forms in which electronically stored information is to be produced.

(2) Responses and Objections.

(A) Time to Respond. The party to whom the request is directed must respond in writing within 30 days after being served. A shorter or longer time may be stipulated to under Rule 29 or be ordered by the court.

(B) Responding to Each Item. For each item or category, the response must either state that inspection and related activities will be permitted as requested or state an objection to the request, including the reasons.

(C) Objections. An objection to part of a request must specify the part and permit inspection of the rest.

(D) Responding to a Request for Production of Electronically Stored Information. The response may state an objection to a requested form for producing electronically stored information. If the
responding party objects to a requested form—or if no form was specified in the request—the party must state the form or forms it intends to use.

(E) Producing the Documents or Electronically Stored Information. Unless otherwise stipulated or ordered by the court, these procedures apply to producing documents or electronically stored information:

(i) A party must produce documents as they are kept in the usual course of business or must organize and label them to correspond to the categories in the request;

(ii) If a request does not specify a form for producing electronically stored information, a party must produce it in a form or forms in which it is ordinarily maintained or in a reasonably usable form or forms; and

(iii) A party need not produce the same electronically stored information in more than one form.

(c) NONPARTIES. As provided in Rule 45, a nonparty may be compelled to produce documents and tangible things or to permit an inspection.
APPENDIX D

(b) PROCEDURE. * * *

(2) Responses and Objections. * * *

(A) Time to Respond. The party to whom the request is directed must respond in writing within 30 days after being served or — if the request was delivered under Rule 26(d)(1)(B) — within 30 days after the parties’ first Rule 26(f) conference. A shorter or longer time may be stipulated to under Rule 29 or be ordered by the court.

(B) Responding to Each Item. For each item or category, the response must either state that inspection and related activities will be permitted as requested or state the grounds for objecting to the request with specificity, including the reasons. If the responding party states that it will produce copies of documents or of electronically stored information instead of permitting inspection, the production must be completed no later than the time for inspection stated in the request or a later reasonable time stated in the response.

(C) Objections. An objection must state whether any responsive materials are being withheld on the basis of that objection. An objection to part of a request must specify the part and permit inspection of the rest. * * *