

The Sedona Conference TAR Case Law Primer, Second Edition

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THE SEDONA CONFERENCE TAR CASE LAW PRIMER,
SECOND EDITION

*A Project of The Sedona Conference Working Group
on Electronic Document Retention and Production (WG1)*

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PREFACE

Welcome to the final, May 2023 version of *The Sedona Conference TAR Case Law Primer, Second Edition*, a project of The Sedona Conference Working Group on Electronic Document Retention and Production (WG1). This is one of a series of Working Group commentaries published by The Sedona Conference, a 501(c)(3) research and educational institute dedicated to the advanced study of law and policy in the areas of antitrust law, complex litigation, intellectual property rights, and data security and privacy law. The mission of The Sedona Conference is to move the law forward in a reasoned and just way.

The first edition of the *TAR Case Law Primer* was published in January 2017 to address case law issues that arose during the early use of technology-assisted review (TAR) for the exploration and classification of large document collections in civil litigation. Since publication of the first edition, case law has addressed more complex issues such as TAR methodologies, metrics, and validation. This second edition reflects the subsequent history and development of TAR case law, analyzes the published judicial decisions in the years following the original publication, and discusses how the technological shift from TAR 1.0 systems to TAR 2.0, continuous active learning, has impacted the case law. Like the first edition, the *Primer* does not recommend best practices or otherwise comment on the utility of TAR. It is intended to assist courts and practitioners in staying abreast of this evolving area of law and technology.

The *Primer* was a topic of dialogue at the WG1 2022 Midyear Meeting in Phoenix, and drafts of the *Primer* were circulated for member comment at the Midyear Meeting and again in the fall of 2022. Future developments in the law and technology may warrant further updates.

The Sedona Conference acknowledges the efforts of Drafting Team leaders Tara Emory and Maria Salacuse, who were

invaluable in driving this project forward. We also thank drafting team members Gareth Evans, Alicia Hawley, Emily Jennings, Robert Keeling, LEEANNE S. MANCARI, Angelica Ornelas, John Pappas, Jr. and Florence Yee, and steering committee liaisons Rebekah Bailey, Andrea D'Ambra, Philip Favro, and the Honorable Andrew J. Peck (ret.) for their dedication and contributions to this project. We also thank Deesha Shah for her assistance in compiling the Table of Cases.

We encourage your active engagement in the dialogue. Membership in The Sedona Conference Working Group Series is open to all. The Series includes WG1 and several other Working Groups in the areas of international electronic information management, discovery, and disclosure; patent damages and patent litigation best practices; data security and privacy liability; trade secrets; and other "tipping point" issues in the law. The Sedona Conference hopes and anticipates that the output of its Working Groups will evolve into authoritative statements of law, both as it is and as it should be. Information on membership and a description of current Working Group activities is available at <https://thesedonaconference.org/wgs>.

Craig Weinlein
Executive Director
The Sedona Conference
May 2023

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I. INTRODUCTION

Courts have generally accepted the use of Technology Assisted Review (TAR)¹ to search for electronically stored information (ESI) responsive to requests for production. They routinely cite its benefits and encourage its use. With more frequent implementation of TAR and greater familiarity with TAR workflows, courts in recent years are handling increasingly complex TAR disputes compared with when The Sedona Conference published the first edition of the *TAR Case Law Primer* (“*First Edition Primer*”) in January 2017. The *First Edition Primer* addressed the early TAR cases, providing courts and parties with authority on the common TAR issues of that time.

In the years since, case law has further developed to address more complex issues, such as TAR methodologies, metrics, and validation. This updated Primer (“*Second Edition Primer*,” or “*Primer*”) updates and replaces the *First Edition Primer*. This

1. TAR is “A process for prioritizing or coding a collection of electronically stored information using a computerized system that harnesses human judgments of subject-matter experts on a smaller set of documents and then extrapolates those judgments to the remaining documents in the collection. Some TAR methods use algorithms that determine how similar (or dissimilar) each of the remaining documents is to those coded as relevant (or non-relevant) by the subject-matter experts, while other TAR methods derive systematic rules that emulate the experts’ decision-making processes. TAR systems generally incorporate statistical models and/or sampling techniques to guide the process and to measure overall system effectiveness.” *The Sedona Conference Glossary: eDiscovery & Digital Information Management, Fifth Edition*, 21 SEDONA CONF. J. 263 (2020) (definition adopted from Maura R. Grossman & Gordon V. Cormack, *The Grossman-Cormack Glossary of Technology-Assisted Review with Foreword by John M. Facciola*, U.S. Magistrate Judge, 7 FED. CTS. L. REV. 1, 32 (2013)). The terms “predictive coding” and “computer-assisted review” are sometimes used interchangeably with TAR to describe this process. This *Primer* will use the term “TAR,” unless quoting a case that uses another term.

Primer is intended to assist courts and practitioners in staying abreast of this evolving area of law and technology. It contains all cases that substantively address TAR found by the drafting team as of December 31, 2022. It spotlights key trends and issues relating to TAR through December 31, 2022, identifies supporting case law, and summarizes the current state of the law and the open questions that remain.

The *Primer* generally addresses case law deciding disputes relating to TAR and does not address cases in which parties used TAR without challenge. Beyond the scope of the *Primer*, parties may find additional guidance on TAR uses and methodologies within stipulated TAR protocols.²

While it is hoped that this *Primer* will provide a thorough overview of TAR to those who read it beginning to end, it is also expected that many readers will instead focus only on topics related to specific needs. The *Primer* is therefore organized based on those topics, with some cases discussed in multiple sections.

Section II addresses the history of judicial acceptance of TAR, discussing key cases for TAR acceptance and trends and providing context for modern TAR jurisprudence. Beginning with *Da Silva Moore v. Publicis Groupe*³ in 2012, courts began to recognize the potential value of TAR to increase efficiencies in the discovery process. As parties' use of TAR also increased and evolved, courts more recently have addressed issues relating to different TAR workflows.

2. In compiling the TAR case law summaries included in this *Primer*, the drafting team focused on identifying and analyzing judicial decisions related to TAR. The *Primer* purposefully does not summarize the terms of various TAR protocols, whether they are stipulated by the parties or "so ordered" by a court. In the drafting team's view, TAR protocols by themselves do not provide substantive guidance from judges on legal issues or disputes related to TAR.

3. *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 183 (S.D.N.Y. 2012).

Section III discusses how courts have accepted the use of TAR when parties have agreed to its use, and how they have held parties to their prior agreements about the use of TAR. Courts, however, mostly decline to require a responding party to use TAR when it objects to doing so. In accordance with Sedona Principle 6,⁴ courts generally defer to the responding party's reasonable choice of methods for collecting, reviewing, and producing its own ESI, including the use of TAR. However, courts have also acknowledged that a party's unilateral decisions about its use of TAR are subject to limitations if it is unreasonable or results in a production deficiency.

Section IV examines the level of transparency and disclosure that courts expect in connection with TAR. This section starts by discussing cases that generally address whether the use of TAR should be disclosed. It then moves on to cases about other types of disclosure—whether (and how) information about seed, training, or validation sets should be shared; whether TAR metrics and methodologies should be divulged, including during Rule 30(b)(6) depositions; and situations in which null sets and nonresponsive documents should be sampled.

Section V includes cases that address issues related to TAR workflows, including search-term culling, recall thresholds, ESI orders, and TAR protocols.

Section VI discusses how courts have considered the existence of court-ordered ESI protocols when assessing a responding party's production decisions.

The final four sections of this *Primer* examine the application of proportionality in connection with TAR (Section VII);

4. The Sedona Conference, *The Sedona Principles, Third Edition: Best Practices, Recommendations & Principles for Addressing Electronic Document Production*, Principle 6, 19 SEDONA CONF. J. 1, 118 (2018) [hereinafter *The Sedona Principles, Third Edition*].

instances where courts have considered cost shifting (Section VIII); TAR cases from foreign jurisdictions (Section IX); and considerations for using TAR in governmental investigations (Section X).

II. HISTORY OF JUDICIAL ACCEPTANCE OF TAR

A. From *Da Silva Moore* in 2012 to *Rio Tinto* in 2015

In 2012, *Da Silva Moore v. Publicis Groupe* became the first published opinion recognizing TAR as an “acceptable way to search for relevant ESI in appropriate cases.”⁵ The decision paved the way for practitioners to use TAR with confidence as a defensible discovery tool, and for additional courts to reinforce that principle. As the use of TAR became more common, courts have consistently opined that the acceptability of its use is well established. Moving beyond the issue of *whether* a party may use TAR, courts have confronted issues on *how* parties are using TAR. Meanwhile, how parties use TAR have also evolved in ways that impact the issues addressed by courts confronted with TAR, with a notable example of TAR 1.0 and TAR 2.0 workflows.

The court in *Da Silva Moore* approved a party-negotiated TAR protocol, which had set forth the manner of selection and review of the seed and training document sets,⁶ and addressed those aspects of the protocol about which the parties disagreed.⁷ The court stated that “[w]hat the Bar should take away from this Opinion is that [TAR] is an available tool and should be seriously considered for use in large-data-volume cases where it

5. *Da Silva Moore*, 287 F.R.D. at 183.

6. *Da Silva Moore* involved TAR 1.0, which refers to the use of Simple Active Learning (“SAL”) and Simple Passive Learning (“SPL”) protocols, both of which are single-time training protocols. See below for further discussion. The seed set is “[a] manually compiled set of documents used to train an analytic index for the purposes of performing some form of technologically-assisted review.” *The Sedona Conference Glossary: eDiscovery & Digital Information Management, Fifth Edition*, 21 SEDONA CONF. J. 263 (2020).

7. See *Da Silva Moore*, 287 F.R.D. at 182–83, 190–93.

may save the producing party (or both parties) significant amounts of legal fees in document review.”⁸ The court stated, however, “[t]hat does not mean computer-assisted review must be used in all cases, or that the exact ESI protocol approved here will be appropriate in all future cases that utilize computer-assisted review.”⁹

The court suggested that “the best approach” when a party wishes to use TAR is to “follow the Sedona Cooperation Proclamation model” and “[a]dvice opposing counsel that you plan to use [TAR] and seek agreement.”¹⁰ Noting the responding party’s willingness to provide the requesting party with “[a]ll documents that are reviewed as a function of the seed set . . . and . . . to the extent applicable, the issue tag(s) coded for each document,” the court “highly recommend[ed] that counsel in future cases be willing to at least discuss, if not agree, to such transparency in the computer-assisted review process.”¹¹ If, however, parties cannot agree, the court stated that they should “consider whether to [either] abandon [TAR] for that case or go to the court for advance approval,” noting that court approval would be unlikely absent “results [that] are quality control verified.”¹² As for court approval, the court stated that it “recognizes that [TAR] is not a magic, Staples-Easy-Button, solution appropriate for all cases.”¹³ While the technology should be used where appropriate, courts should consider the particular protocol that is proposed. “[I]t is not a case of machine replacing

8. *Id.* at 193.

9. *Id.*

10. *Id.* at 184 (quoting Andrew Peck, *Search, Forward*, L. TECH. NEWS, Oct. 11, 2011, at 25, 29).

11. *Id.* at 192.

12. *Id.* at 184, 192.

13. *Id.* at 189.

humans: it is the process used and the interaction of man and machine that the courts need to examine.”¹⁴ The court emphasized: “While this Court recognizes that [TAR] is not perfect, the Federal Rules of Civil Procedure do not require perfection.”¹⁵

The court concluded that defendant’s use of TAR was appropriate, considering the following factors: (1) the parties’ agreement to use TAR (even though they disagreed on certain aspects of its implementation); (2) “the vast amount of ESI to be reviewed (over three million documents);” (3) “the superiority of [TAR] to the available alternatives (i.e., linear manual review or keyword searches);” (4) “the need for cost effectiveness and proportionality under Federal Rule of Civil Procedure 26(b)(2)(C);” and (5) “the transparent process proposed by [defendant].”¹⁶

Following *Da Silva Moore*’s recognition that TAR was an acceptable search methodology, courts began encouraging the use of TAR or commenting on its potential to reduce cost and burden.¹⁷ Some courts in these early cases encouraged (and even ordered) the parties to consider TAR.¹⁸ And some cases, without

14. *Id.*

15. *Id.* at 191.

16. *Id.* at 192.

17. *See, e.g.,* Nat’l Day Laborer Org. Network v. U.S. Immigr. & Customs Enforcement Agency, 877 F. Supp. 2d 87, 111 (S.D.N.Y. 2012) (suggesting TAR could address keyword search shortcomings); *In re Domestic Drywall Antitrust Litig.*, 300 F.R.D. 228, 233 (E.D. Pa. 2014) (noting use of technology could lead to greater efficiency and more beneficial results); *Malone v. Kantner Ingredients, Inc.*, No. 4:12CV3190, 2015 WL 1470334, at *3 n.7 (D. Neb. Mar. 31, 2015).

18. *See, e.g.,* FDIC v. Bowden, No. CV413-245, 2014 WL 2548137, at *13 (S.D. Ga. June 6, 2014) (ordering parties to consider the use of TAR); *Aurora Coop. Elevator Co. v. Aventine Renewable Energy-Aurora W. LLC*, No. 4:12CV230, 2015 WL 10550240, at *1 (D. Neb. Jan. 6, 2015) (ordering the parties to “consult with a computer forensic expert to create search protocols, including predictive coding as needed, for a computerized review of the

engaging in substantive discussions, noted the parties' use of TAR in reviewing productions of opposing parties or non-parties.¹⁹ In these earliest cases, before the acceptance of TAR was well established, cooperation and agreement by parties on both sides initially weighed heavily into courts' approval of TAR.²⁰

Courts soon began referring to the use of TAR as a well-accepted methodology. The court in *Dynamo Holdings Ltd. Partnership v. Commissioner of Internal Revenue (Dynamo Holdings I)*, for example, rejected the requesting party's assertion that TAR is an "unproved technology," noting that "the understanding of e-discovery and electronic media has advanced significantly in the last few years, thus making predictive coding more acceptable in the technology industry than it may have previously been."²¹ The court added that "[i]n fact, we understand that the

parties' electronic records"); *Johnson v. Ford Motor Co.*, No. 3:13-cv-06529, 2015 WL 4137707, at *11 (S.D. W. Va. July 8, 2015) (ordering the parties to "involve their IT experts and to consider other methods of searching such as predictive coding").

19. *N.M. State Invest. Council v. Bland*, No. D-101-CV-2011-01534, 2014 WL 772860 (D.N.M. Feb. 12, 2014); *Arnett v. Bank of Am., N.A.*, No. 3:11-cv-1372-SI, 2014 WL 4672458 (D. Or. Sept. 18, 2014).

20. *See Da Silva Moore*, 287 F.R.D. at 193 (negotiated protocol); *Kleen Prods. LLC v. Packaging Corp. of Am.*, No. 10 C 5711, 2012 WL 4498465 (N.D. Ill. Sept. 28, 2012) (ordering parties to cooperate where a requesting party sought to require responding party to use TAR); *Fed. Hous. Fin. Agency v. JPMorgan Chase & Co.*, No. 1:11-cv-06188-DLC (S.D.N.Y. July 24, 2012) (Transcript at 9, 14) (appearing to encourage disclosure of the training sets by stating that for the TAR process to work, "it needs transparency and cooperation of counsel"); *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125, 129 (S.D.N.Y. 2015) (noting the level of transparency required for certain workflows was not established but did not need to be decided because the parties had agreed to a protocol addressing the issue).

21. *Dynamo Holdings Ltd. P'ship v. Comm'r of Internal Revenue (Dynamo Holdings I)*, 143 T.C. 183, 191–92 (2014) (citing *Da Silva Moore*, 287 F.R.D. at 182 n.2, *adopted sub nom.*, *Da Silva Moore v. Publicis Groupe SA*, No. 11 Civ. 1279 (ALC)(AJP), 2012 WL 1446534 (S.D.N.Y. Apr. 26, 2012)); *see also*

technology industry now considers predictive coding to be widely accepted for limiting e-discovery to relevant documents and effecting discovery of ESI without an undue burden.”²² Many courts have also commented on TAR as a means to reduce cost and burden.²³

In *Rio Tinto PLC v. Vale S.A.*, decided in 2015, the court observed that “[i]n the three years since *Da Silva Moore*, the case law has developed to the point that it is now black letter law that where the producing party wants to utilize TAR for document review, courts will permit it.”²⁴ The court pointed to a long

Progressive Cas. Ins. Co. v. Delaney, No. 2:11-cv-00678-LRH-PAL, 2014 WL 3563467, at *8 (D. Nev. July 18, 2014) (providing citations of articles indicating that TAR has proved to be an accurate way to comply with a discovery request for ESI and that studies show it is more accurate than human review or keyword searches); *FDIC v. Bowden*, 2014 WL 2548137, at *13 (S.D. Ga. June 6, 2014) (directing that the parties consider the use of TAR).

22. *Dynamo Holdings I*, 143 T.C. at 192.

23. See, e.g., *Harris v. Subcontracting Concepts, LLC*, No. 1:12-MC-82 (DNH/RFT), 2013 WL 951336, at *5 (N.D.N.Y. Mar. 11, 2013) (noting TAR, along with other recent technologies, can dramatically reduce the time and cost of production); see also *Chevron Corp. v. Donziger*, No. 11 Civ. 0691(LAK), 2013 WL 1087236, at *32 n.255 (S.D.N.Y. Mar. 15, 2013); *Zhulinska v. Niyazov Law Grp., P.C.*, No. 21-CV-1348 (CBA), 2021 WL 5281115, at *3 (E.D.N.Y. Nov. 12, 2021); *Republic of the Gambia v. Facebook, Inc.*, No. 20-mc-36-JEB-ZMF, 567 F. Supp. 3d 291 (D.D.C. 2021), *vacated in part sub nom. Republic of the Gambia v. Facebook, Inc.*, 575 F. Supp. 3d 8 (D.D.C. 2021), *reconsideration denied sub nom. Republic of the Gambia v. Meta Platforms, Inc.*, No. 20-36 (JEB), 588 F. Supp. 3d 1 (D.D.C. 2022).

24. *Rio Tinto*, 306 F.R.D. at 127, 129 (S.D.N.Y. 2015) (“One point must be stressed—it is inappropriate to hold TAR to a higher standard than keywords or manual review. Doing so discourages parties from using TAR for fear of spending more in motion practice than the savings from using TAR for review”).

list of cases in which courts had approved the responding party's use of TAR during the period of 2012-15.²⁵

B. Emergence of TAR 2.0

As TAR has become more widely used, TAR technologies, uses, and workflows have also evolved. A particularly notable development has been workflows using TAR 2.0, also referred to as "Continuous Active learning" ("CAL"),²⁶ and other terms, which have affected issues that may arise between parties and resulting case law. The terms "TAR 1.0" and "TAR 2.0," which have their genesis as marketing terms, refer to contrasting TAR workflow methodologies. The earlier of the TAR workflows to emerge, often known as TAR 1.0, refers to the use of discrete training sets within the entire review population.²⁷ Then, counsel may or may not engage in further responsiveness review of the categorized documents. By contrast, TAR 2.0 refers to a

25. See *id.* at 127–28 (citing *Dynamo Holdings I*, 143 T.C. 9); *Green v. Am. Modern Home Ins. Co.*, No. 1:14-cv-04074, 2014 WL 6668422, at *1 (W.D. Ark. Nov. 24, 2014); *Aurora Coop. Elevator Co. v. Aventine Renewable Energy–Aurora W. LLC*, No. 12 Civ. 0230, ECF No. 147 (D. Neb. Mar. 10, 2014); *Edwards v. Nat'l Milk Producers Fed'n*, No. 11 Civ. 4766, ECF No. 154 (N.D. Cal. Apr. 16, 2013) (Joint Stip. & Order); *Bridgestone Ams., Inc. v. Int'l Bus. Machs. Corp.*, No. 3:13-1196, 2014 WL 4923014 (M.D. Tenn. July 22, 2014); *Fed Hous. Fin. Agency v. HSBC N.A. Holdings, Inc.*, Nos. 11 Civ. 6189(DLC), 2014 WL 584300, at *3 (S.D.N.Y. Feb. 14, 2014); *EORHB, Inc. v. HOA Holdings LLC*, No. 7409-VCL, 2013 WL 1960621 (Del. Ch. May 6, 2013); *In re Actos (Pioglitazone) Prods. Liab. Ltg.*, 274 F. Supp. 3d 485 (W.D. La. 2017).

26. The terms "continuous active learning" and "CAL" are trademarks of Maura Grossman and Gordon Cormack. See Gordon V. Cormack & Maura R. Grossman, *Evaluation of Machine Learning Protocols for Technology-Assisted Review in Electronic Discovery*, in [SIGIR '14: Proceedings of the 37th international ACM SIGIR conference on Research & development in information retrieval](http://dx.doi.org/10.1145/2600428.2609601), at 153–62 (July 3, 2014), available at <http://dx.doi.org/10.1145/2600428.2609601> ("SIGIR study").

27. *Id.*

workflow where, generally, every document the TAR model identifies as most likely to be responsive is prioritized for review by human reviewers, and their coding further trains the algorithm.²⁸

The TAR 2.0 workflow was first discussed in *Rio Tinto*. There, the court discussed the evolution of TAR technologies and workflows and how those changes impacted parties' discussions about TAR, including, for example, some requesting parties' concerns about the composition of seed and training sets.²⁹ The *Rio Tinto* court noted studies showing that with TAR tools employing this distinct "continuous active learning" workflow, the seed set may have little or no impact, and that as a practical matter, there may be no discrete training sets to share.³⁰

28. While this generally describes a TAR 2.0 review for responsiveness, variations to this workflow exist.

29. While "training" documents refer to any documents used as inputs to create a TAR model, "seed" documents is a term used less consistently. While it commonly refers to the set of training documents selected for the first run of a TAR algorithm to build a model, it is sometimes used to refer to a broader set of training documents. *See, e.g., Winfield v. City of New York*, No. 15-CV-05236 (LTS)(KHP), 2017 WL 5664852, at *4 (S.D.N.Y. Nov. 27, 2017) ("For TAR to work properly, the producing party must prepare a training, or seed set, of responsive and non-responsive documents to train the computer system how to distinguish between them.").

30. *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125, 128 (S.D.N.Y. 2015) (citing SIGIR study).

III. COURT INVOLVEMENT IN TAR

Court involvement relating to TAR most commonly occurs when courts enter TAR protocols that the parties have negotiated and stipulated.³¹ Court involvement also has occurred when a responding party seeks court approval of its unilateral decision to use TAR or the methodology it intends to use. It has also occurred when a requesting party seeks to compel a responding party to use TAR or implement a specific TAR protocol. Although rare, courts have sua sponte ordered the use of TAR.

A. Permission Not Needed for Responding Party to Use TAR

Generally, as discussed further in Section III.C below, a responding party may not only determine how and whether to use TAR, it may do so without seeking court permission.³² In *Entrata, Inc. v. Yardi Systems, Inc.*, the court denied the plaintiff's motion to compel disclosure of the complete methodology and results of the defendant's TAR process in a situation where the parties failed to reach agreement on search methodology early on and where the plaintiff knew about the use of TAR but did

31. At times, courts are also involved in crafting provisions of TAR protocols.

32. While early cases such as *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 184 (S.D.N.Y. 2012) stressed the importance of party agreement or court approval, this requirement no longer applied after "the case law has developed to the point that it is now black letter law that where the producing party wants to utilize TAR for document review, courts will permit it." *Rio Tinto*, 306 F.R.D. at 127. As discussed in Section VI, the exception to this general practice is where parties deviate from the negotiated ESI protocol in implementing TAR.

not take issue with it until the last day of discovery.³³ The court noted that it was “‘black letter law’ that courts will permit a producing party to utilize TAR” and that the plaintiff “was not required to seek approval from the Magistrate Court to use TAR where there was never an agreement to utilize a different search methodology.”³⁴ Citing *Entrata, In re Broiler Chicken Grower Antitrust Litigation (No. II)*, similarly held, “Courts in this district have found that when there has not been an agreement to the contrary, a party is not required to seek approval to use TAR.”³⁵

The court in *Dynamo Holdings I* likewise opined that responding parties need not seek court permission to use TAR, and that the requesting party can object after production if the production is not complete. It explained that responding parties are generally free to decide their own process for discovery without needing prior judicial approval.³⁶

In *William Morris Endeavor Entertainment, LLC v. Writers Guild of America West, Inc.*, the court similarly found that court approval of the use of TAR was not necessary.³⁷ The court,

33. *Entrata, Inc. v. Yardi Sys., Inc.*, No. 2:15-cv-00102, 2018 WL 5470454, at*7 (D. Utah Oct. 29, 2018).

34. *Id.*, quoting *Rio Tinto* at 127. Further discussion of *Entrata* is in Section IV.A.

35. *In re Broiler Chicken Grower Antitrust Litig. (No. II) (In re Boiler Chicken II)*, No. 6:20-2977-RJS-CMR, 2022 WL 2812679, at *2 (E.D. Okla. Feb. 7, 2022).

36. *Dynamo Holdings I*, 143 T.C. 183, 188–89 (2014) (“[T]he Court is not normally in the business of dictating to parties the process that they should use when responding to discovery. If our focus were on paper discovery, we would not (for example) be dictating to a party the manner in which it should review documents for responsiveness or privilege, such as whether that review should be done by a paralegal, a junior attorney, or a senior attorney.”).

37. *William Morris Endeavor Ent., LLC v. Writers Guild of Am. W., Inc.*, No. 219CV05465ABAFMX, 2020 WL 6162797, at *2 (C.D. Cal. June 8, 2020)

however, did note that the defendants should be prepared to defend [their search] plan if later challenged by [plaintiffs].”³⁸

Finally, in *Bliss v. CoreCivic, Inc.*, the court commented in dicta when ruling on a proposed scheduling order that it “need not be involved” in the defendant’s “ordinary” decision to use TAR, unless there existed some “basis to believe that the mechanism used is either purposefully or inherently failing to identify proportional, relevant, and responsive ESI.”³⁹

B. Whether Court May Compel TAR

While courts generally find that TAR is an acceptable methodology for responding parties to use, courts generally decline to *require* responding parties to use TAR to fulfill their discovery obligations.

1. Courts Declining to Order TAR

Kleen Products LLC v. Packaging Corporation of America was one of the first cases in which a court considered the issue of imposing the use of TAR on a responding party.⁴⁰ In *Kleen*, the plaintiffs sought to require defendants to use TAR rather than (according to the plaintiffs) the “antiquated Boolean [] search of [defendants’] self-selected custodians’ ESI and certain central files.”⁴¹ The defendants objected because they had already used

38. *Id.*

39. *Bliss v. CoreCivic, Inc.*, No. 2:18-cv-01280-JAD-EJY, 2021 WL 930692, at *1 (D. Nev. Feb. 9, 2021). *But see In re Diisocyanates Antitrust Litig.*, No. 18-1001, MDL No. 2862, 2021 WL 4295729 (W.D. Pa. Aug. 23, 2021) *adopted by In re Diisocyanates*, 2021 WL 4295719 (W.D. Pa. Sept. 21, 2021) (finding process to be unreasonable and sent parties back to the drawing board).

40. *Kleen Prods. LLC v. Packaging Corp. of Am.*, No. 10-cv-5711, 2012 WL 4498465 (N.D. Ill. Sept. 28, 2012).

41. *Kleen Prods.*, Plaintiffs’ Statement of Position with Respect to Disputed Items for Dec. 15, 2011 Status Conference at 4–5, ECF No. 266 (N.D. Ill. Dec. 13, 2011).

keyword searches and viewed TAR as a “new, untested document gathering and production protocol.”⁴² After holding evidentiary hearings on the efficacy of TAR,⁴³ the court ultimately declined to require the defendants to adopt one methodology over another. Instead, the court ordered the parties to meet and confer regarding modifications to the responding party’s existing search methodology.⁴⁴

In *Hyles v. New York City*, the court held that defendant New York City could not be compelled to use TAR against its will even though the court agreed that, “in general, TAR is cheaper, more efficient and superior to keyword searching.”⁴⁵ Unlike prior cases, where the responding party had already expended significant effort and expense on document review and production,⁴⁶ in *Hyles* the responding party had not yet commenced its review. This raised the issue of whether, on the requesting party’s motion to compel the use of TAR at the outset of discovery, the court would order the responding party to use TAR. It

42. See *Kleen Prods.*, Defendants’ Statement of Position with Respect to Disputed Items for Dec. 15, 2011 Status Conference at 3, ECF No. 267 (N.D. Ill. Dec. 13, 2011).

43. See *Kleen Prods.*, (N.D. Ill. Mar. 1, 2012) (Feb. 21, 2012 Transcript); *Kleen Prods.*, (N.D. Ill. Aug. 2, 2012) (Mar. 28, 2012 Transcript).

44. *Kleen Prods.*, (Aug. 2, 2012) (Mar. 28, 2012 Transcript). Ultimately, the parties stipulated that plaintiffs could object to defendants’ search methodology and propose alternatives but would withdraw their request for TAR. Stipulation & Order Relating to ESI Search, *Kleen Prods.*, (Aug. 21, 2012); see also *Kleen Prods.*, 2012 WL 4498465 (N.D. Ill. Sept. 28, 2012).

45. *Hyles v. New York City*, No. 10 Civ. 3119 (AT)(AJP), 2016 WL 4077114, at *2 (S.D.N.Y. Aug. 1, 2016).

46. The court stated that in prior cases “where the requesting party has sought to force the producing party to use TAR, the courts have refused.” *Id.* The court noted, however, that in those cases, the responding party had already “spent over \$1 million using keyword search (in *Kleen [Products]*) or keyword culling followed by TAR (in *Biomet*).” *Id.* (emphasis added).

declined to do so. The court held that “it is not up to the Court, or the requesting party (Hyles), to force the City as the responding party to use TAR when it prefers to use keyword searching.”⁴⁷ The court explained that while the requesting party “may well be correct that production using keywords may not be as complete as it would be if TAR were used,” nevertheless “the standard is not perfection, or using the ‘best’ tool,” but rather “whether the search results are reasonable or proportional.”⁴⁸ The court concluded that there “may come a time when TAR is so widely used that it might be unreasonable for a party to decline to use TAR,” but “[w]e are not there yet.”⁴⁹

Similarly, in *In re Viagra (Sildenafil Citrate) Products Liability Litigation*, the court denied the plaintiffs’ request that defendant use TAR and that the plaintiffs’ representatives be involved in the defendant’s TAR process.⁵⁰ The defendant instead planned to use an iterative search-term process, which it would test and validate through sampling. Relying on *Hyles*, the court in *Viagra* held that it was not up to the court or the requesting party to force a responding party to use TAR when it preferred to use search terms. The court reasoned that it would not compel the use of TAR, even if it were a superior method, absent evidence of insufficient discovery responses.⁵¹ The court therefore denied the motion without prejudice.

47. *Id.* at *3.

48. *Id.*

49. *Id.*

50. *In re Viagra (Sildenafil Citrate) Prods. Liab. Litig.*, No. 16-md-02691-RS (SK), 2016 WL 7336411 (N.D. Cal. Oct. 14, 2016).

51. *Id.* at *2.

In re Mercedes-Benz Emissions Litigation echoed that reasoning when it declined to compel the use of TAR.⁵² In that case, the plaintiffs moved to compel the defendants to use TAR to identify responsive documents, arguing that TAR “yields significantly better results than either traditional human ‘eyes on’ review of the full data set or the use of search terms.”⁵³ The defendants objected, preferring instead to use custodians and search terms to identify relevant documents and arguing that there was no authority for a court to require TAR.⁵⁴ In addition, the defendants claimed that using TAR would not be appropriate in light of certain ESI issues present in the case, including language and translation, unique acronyms and identifiers, redacted documents, and technical documents that would make TAR challenging and ineffective.⁵⁵

The special master noted that while the benefits of TAR are widely recognized, no court had compelled a party to use TAR over objection.⁵⁶ Despite his view that TAR would be the “more cost effective and efficient methodology,” the special master allowed the defendant to use its preferred custodian-and-search-term approach.⁵⁷

52. *In re Mercedes-Benz Emissions Litig.*, No. 2:16-cv-881 (KM) (ESK), 2020 WL 103975 (D.N.J. Jan. 9, 2020). For further discussion about this case, see Section III.C. *See also* Raymond James & Assocs., Inc. v. 50 N. Front St. TN, LLC, No. 18-cv-2104-JTF-tmp, 2022 WL 3337275, at *4 (W.D. Tenn. Feb. 8, 2022) (citing *In re Mercedes-Benz* and refusing to find that costs incurred from manual review were unreasonable where plaintiff did not use TAR).

53. *In re Mercedes-Benz*, 2020 WL 103975, at *1.

54. *Id.*

55. *Id.*

56. *Id.*

57. *Id.* at *2; *see also In re Bridgepoint Educ., Inc. Sec. Litig.*, No. 12cv1737 JM (JLB), 2014 WL 3867495 (S.D. Cal. Aug. 6, 2014) (denying plaintiffs’ request to require defendants to use TAR on documents that defendants had previously searched using traditional search terms); *Klein v. Facebook, Inc.*,

2. Courts Ordering TAR

Three decisions have ordered the use of TAR, in the context of ongoing discovery problems caused, at least in part, by the responding party's conduct. In *Independent Living Center v. City of Los Angeles*, the court ordered the use of TAR to search more than two million documents after "little or no discovery was completed" before the discovery cutoff, and the parties had ongoing disputes after "months of haggling" over search terms that yielded large numbers of documents for review.⁵⁸

In *OSI Restaurant Partners v. United Ohana*, the Delaware Court of Chancery granted the defendant's motion to compel in part, ordering the plaintiff to identify responsive documents by applying TAR to all produced documents that had not previously undergone a document-by-document attorney-level review for responsiveness.⁵⁹ The court further directed that the parties work together, with their eDiscovery vendors, to develop a TAR process; that the plaintiff implement the TAR process; and that the plaintiff make a new production to the defendants.⁶⁰ In addition, the court stated that the plaintiff would be responsible for all expenses associated with the TAR process.⁶¹

Similarly, in *Winfield v. City of New York*, after "numerous complaints about the pace of discovery and document review, which initially involved only manual linear review of documents," the court ordered the responding party to begin using

No. 20-cv-08570-LHK (VKD), 2021 U.S. Dist. LEXIS 175738, at *8 (N.D. Cal. Sep. 15, 2021) (noting that the court may not require a party to adopt a particular TAR protocol).

58. *Indep. Living Center v. City of Los Angeles*, No. 2:12-cv-00551, Minute Order at 1, ECF 375 (C.D. Cal. June 26, 2014).

59. *OSI Rest. Partners, LLC v. United Ohana, LLC*, No. 12353-CB, 2017 WL 396357 (Del. Ch. Jan. 27, 2017).

60. *Id.* at *2.

61. *Id.*

TAR “to hasten the identification, review, and production of documents responsive to Plaintiffs’ document requests.”⁶²

3. Courts Suggesting TAR

Courts sometimes suggest to the parties that the use of TAR may be appropriate to address discovery issues. For instance, in *EORHB, Inc. v. HOA Holdings LLC*, the Delaware Court of Chancery sua sponte ordered the parties to use TAR or, alternatively, to show cause why TAR should not be used.⁶³ The defendant ultimately elected to use TAR. The plaintiff, however, was not required to do so after informing the court that because of the low volume of documents it expected to have to review and produce, the cost of using TAR likely would outweigh any practical benefits.⁶⁴

Similarly, in granting the plaintiff’s motion to compel in a short one-page order, the court in *Davine v. Golub Corporation* expressly stated that the defendants could continue to rely on their TAR model in conducting its review of the compelled documents from newly identified custodians.⁶⁵ It likewise ordered that the defendants could “cease their review of the documents identified as possibly relevant when they made a good faith determination that the burden of continuing the review outweighs the benefit in terms of identifying relevant documents.”⁶⁶

62. *Winfield v. City of New York*, 15-CV-05236 (LTS) (KHP), 2017 WL 5664852, at *4 (S.D.N.Y. Nov. 27, 2017).

63. *EORHB, Inc. v. HOA Holdings LLC*, No. 7409-VCL (Del. Ch. Oct. 15, 2012) (Hearing Transcript at 66–67).

64. *See EORHB, Inc. v. HOA Holdings LLC*, No. 7409-VCL, 2013 WL 1960621 (Del. Ch. May 6, 2013).

65. *Davine v. Golub Corp.*, No. 3:14-cv-30136-MGM, 2017 WL 549151, at *1 (D. Mass. Feb. 8, 2017).

66. *Id.*

The court likewise suggested the use of TAR to address overbroad discovery in *Story v. Fiat Chrysler Automotive*, a race discrimination and retaliation case brought by an employee against his employer.⁶⁷ There, the plaintiff moved to compel discovery, claiming that the defendant's responses to his interrogatories and requests for production of documents were incomplete.⁶⁸ The defendant objected to the document request that called for all documents and emails pertaining to or about the plaintiff for an 18-month time period, arguing that the request was too expansive and not proportional to the needs of the case.⁶⁹ The court agreed but encouraged counsel to consider "key word searches or technology assisted review . . . to narrow the volume of an otherwise overly-broad request."⁷⁰

The court in *Youngevity International Corporation v. Smith* encouraged the use of TAR from an early stage of discovery, suggesting that TAR might be an appropriate option in the case and instructing defense counsel to determine the cost of TAR to sort responsive from nonresponsive documents.⁷¹

67. *Story v. Fiat Chrysler Auto.*, No. 4:17-CV-12, 2018 WL 5307230 (N.D. Ind. Oct. 26, 2018).

68. *Id.* at *1.

69. *Id.* at *2.

70. *Id.* at *3.

71. *Youngevity Int'l Corp. v. Smith*, No. 16-cv-00704-BTM (JLB), 2019 WL 1542300, at *8, 15 (S.D. Cal. Apr. 9, 2019) (instructing counsel to find out the cost of TAR and then ordering the parties confer about it), report *adopted sub nom.* *Youngevity Intl. v. Smith*, No. 16-cv-704-BTM-JLB, 2019 WL 11274846 (S.D. Cal. May 28, 2019).

C. Challenges to Responding Party's TAR Methodology

1. Discretion to Responding Party and Sedona Principle 6

In addition to having discretion over whether to use TAR, responding parties typically may select the methodology they use for their TAR process without judicial involvement, provided that it is reasonable. When addressing TAR issues, courts have frequently relied on and cited Principle 6 of The Sedona Principles, which states:

Responding parties are best situated to evaluate the procedures, methodologies, and technologies appropriate for preserving and producing their own electronically stored information.⁷²

These cases reflect that, as with other discovery issues, courts will apply Sedona Principle 6 to defer to a responding party's chosen methodologies when they are reasonable. Courts applying Principle 6 have declined to intervene in a responding party's decisions on whether and how to use TAR, unless a requesting party can show a specific deficiency in a responding party's production or unreasonableness of the selected process.

For example, Sedona Principle 6 was key to the holding in *Livingston v. City of Chicago*, where the court allowed the defendant to use TAR and declined to order the defendant to consult the plaintiff when establishing a review protocol.⁷³ The parties disagreed about whether it was appropriate to apply keyword

72. *The Sedona Principles, Third Edition, supra* note 3, Principle 6.

73. *Livingston v. City of Chicago*, No. 16 CV 10156, 2020 WL 5253848 (N.D. Ill. Sept. 3, 2020). Further discussion of this case can be found in Sections IV.B, V.A, and VI.A.

culling to the dataset prior to applying TAR.⁷⁴ The court found that the City's TAR proposal was reasonable under the federal rules and, citing Sedona Principle 6, held that the City is "best situated to decide how to search for and produce [responsive] emails" ⁷⁵ The court also declined to direct the responding party's TAR process, where its proposed methodology "satisfies the reasonable inquiry standard and is proportional to the needs of this case under the federal rules."⁷⁶

In *Coventry Capital US LLC v. EEA Life Settlements Inc.*, the parties generally agreed to use TAR but disagreed about the specific protocols to be used, leading to a "protracted and contentious" TAR review process.⁷⁷ Noting the responding party's representations that its manual review of the disputed ESI subset could be completed within three weeks and that the addition of that data would "skew the recall and precision metrics and cause delay," the court allowed the responding party to exclude that population from TAR review.⁷⁸ Declining to "force" TAR on the responding party at such a "late stage of Phase I of discovery," the court rejected the requesting party's argument that manual review of the ESI in dispute would cause further delay.

Similarly in *Lawson v. Spirit AeroSystems, Inc.*, the court rejected the plaintiff's complaints about the specific recall the

74. *Id.*

75. *Id.* at *3.

76. *Id.*

77. *Coventry Cap. US LLC v. EEA Life Settlements Inc.*, No. 17-Civ. 7417 (VM) (SLC), 2020 WL 7383940, at *4 (S.D.N.Y. Dec. 16, 2020), *objections overruled*, 2021 WL 961750 (S.D.N.Y. Mar. 15, 2021).

78. *Id.* at *6 (noting that, although courts generally permit a responding party to use TAR, "where the requesting party has sought to force the producing party to use TAR, the courts have refused") (internal quotations omitted) (citing *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125, 127 n.1 (S.D.N.Y. 2015)). Recall and precision are defined and discussed in Section V.C.

defendant used in its TAR process, explaining that the defendant's TAR review process was reasonable, and that the plaintiff's motion to compel the additional review of residual documents was disproportionate to the needs of the case.⁷⁹

Relying on Principle 6, the court in *Kaye v. New York City Health and Hospitals Corp.* held there was no basis to compel an inquiry into the search methodology of a responding party that used TAR where the requesting party had not identified any deficiency in the production.⁸⁰ The court ruled that a requesting party is not entitled, in the first instance, to conduct discovery about the responding party's production methodology, and that any such inquiry must be based on identification of some deficiency and must be proportional to the facts and circumstances of the case.⁸¹

As discussed in the next section, Principle 6 does not provide responding parties with unlimited discretion to make unreasonable discovery choices.⁸² Further, stipulated ESI protocols

79. *Lawson v. Spirit AeroSystems, Inc.*, No. 18-1100-EFM-ADM, 2020 WL 1813395, at *8–9 (D. Kan. Apr. 9, 2020). As in prior cases, the court recognized that TAR is widely accepted under the law. *Id.* at *6 (citing, among other authorities, *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 183 (S.D.N.Y. 2012) and *The Sedona Conference Glossary E-Discovery and Digital Information Management, Fourth Edition*, 15 SEDONA CONF. J. 305 (2014)). Further discussion of *Lawson* can be found in Sections V.C. and VIII.B.

80. *Kaye v. N.Y.C. Health and Hospitals Corp.*, No. 18-CV-12137 (JPO) (JLC), 2020 WL 283702 (S.D.N.Y. Jan. 21, 2020).

81. *Id.* at *3–4.

82. *In re Diisocyanates Antitrust Litig.*, No. 18-1001, 2021 WL 4295729, at *8–12 (W.D. Pa. Aug. 23, 2021) (special master finding that while Principle 6 does allow the responding party to decide in the first instance how it will produce its documents, it did not entitle the responding party to proceed with a proposed TAR methodology that contained “serious flaws” and was “not reasonable”), *adopted by In re Diisocyanates*, 2021 WL 4295719, at *2 (W.D. Pa. Sept. 21, 2021).

between the parties, when ordered by the court, can take priority over general principles of deference to the responding party's decision on appropriate use of TAR.⁸³

2. No Discretion to Responding Party for Unreasonable Process

While courts generally do not direct how a responding party uses TAR, “[t]his general rule does not, however, give carte blanche to a producing party” and courts may require parties to redesign unreasonable processes.⁸⁴ The parties in *In re Diisocyanates Antitrust Litigation* generally agreed to the use of TAR, but they disagreed over the specific TAR protocols to be used.⁸⁵ The court adopted the special master's report and recommendation, which rejected the defendant's motion to permit it to follow a TAR protocol that was determined to be unreasonable because its validation process was flawed.⁸⁶ The court stated that the special master provided “a roadmap highlighting the potholes in Defendants' prior positions and how to proceed to achieve reasonable and proportionate search terms and TAR methodologies.”⁸⁷ The defendants were free to conduct their review consistent with the special master's guidance and were “not compelled to adopt Plaintiffs' search terms or TAR methodologies.”⁸⁸ Later, after Defendants asserted they had

83. *In re Valsartan, Losartan, & Irbesartan Prods. Liab. Litig.*, 337 F.R.D. 610, 617 (D.N.J. 2020) (holding the defendant had violated the court-ordered ESI protocol by “not timely disclosing its use or possible use” of TAR, and therefore requiring defendant to follow plaintiff's proposed TAR methodology instead of defendant's own).

84. *In re Diisocyanates*, 2021 WL 4295729, at *6.

85. *Id.* at *9–10.

86. *In re Diisocyanates*, 2021 WL 4295719, at *1 (W.D. Pa. Sept. 21, 2021).

87. *Id.*

88. *Id.*

completed their TAR review, the special master required some defendants to conduct additional review, based on a qualitative and quantitative evaluation that showed their decision to stop was not reasonable.⁸⁹

Additionally, some courts have cautioned that parties also bear any risks if their process is less efficient than TAR or results in deficiencies. For example, in *In re Mercedes-Benz*, the special master denied the plaintiffs' motion to compel the defendants to use TAR, holding that "Defendants may evaluate and decide for themselves the appropriate technology for producing their ESI."⁹⁰ The special master cautioned, however, that he would "not look favorably on any future arguments related to burden of discovery requests, specifically cost and proportionality, when Defendants have chosen to utilize the custodian-and-search term approach despite wide acceptance that TAR is cheaper, more efficient and superior to keyword searching."⁹¹ In addition, the court noted that once the production was made, the plaintiffs could renew their request to compel the use of TAR if the defendants' production was, in fact, deficient.⁹²

Similarly, the court required certain disclosures of the responding party relating to the appropriateness of the search

89. *In re Diisocyanates*, 2022 WL 17668470, *24–29 (W.D. Pa. Oct. 19, 2022), modified by *In re Diisocyanates*, ECF No. 800 (W.D. Pa. Oct. 21, 2022).

90. *In re Mercedes-Benz Emissions Litig.*, No. 2:16-cv-881 (KM) (ESK), 2020 WL 103975, at *2 (D.N.J. Jan. 9, 2020); see also *id.* at *1 (citing *Hyles v. New York City*, No. 10-CIV-3119, 2016 WL 4077114, at *3 (S.D.N.Y. Aug. 1, 2016) (citing *The Sedona Principles, Second Edition: Best Practices & Principles for Addressing Electronic Document Production*, Principle 6)). Further discussion of this case can be found in Sections III.B.

91. *In re Mercedes-Benz*, 2020 WL 103975, at *2.

92. *Id.* at *2–3.

process in *Winfield v. City of New York*.⁹³ There, the plaintiffs objected to various aspects of the defendant's document review process, which included the use of TAR for certain custodians.⁹⁴ The court disagreed with the plaintiffs' contention that the defendants' TAR process was defective.⁹⁵ Rather, the court concluded, based on its own in camera review of the City's submission, that the City "appropriately trained and utilized its TAR system."⁹⁶ The court found that five of 20 documents submitted by the City were incorrectly coded during the initial review but determined that human error in coding a small subset of documents was not enough to draw into question the accuracy of the City's TAR system, particularly since the training set comprised over 7,000 documents.⁹⁷ Moreover, the City provided information about the training of reviewers and the search criteria used and submitted to in camera review, which was enough to overcome the plaintiffs' challenge to its TAR system.⁹⁸ Like many other courts, *Winfield* explained that reasonableness, rather than perfection, is the standard in discovery.⁹⁹

93. *Winfield v. City of New York*, No. 15-CV-05236 (LTS) (KHP), 2017 WL 5664852 (S.D.N.Y. Nov. 27, 2017).

94. *Id.* at *2.

95. While it rejected plaintiffs' claim that the city's TAR system was defective overall, the court granted the plaintiffs' motion in part, ordering the city to provide the plaintiffs with a random sample of nonresponsive documents from the review populations to increase transparency. *Id.* at *11.

96. *Id.* at *10.

97. *Id.* at *11. *See also* Section II.B.

98. *Id.*

99. *Id.* at *9.

IV. TRANSPARENCY AND DISCLOSURE

For responding parties using TAR, courts generally encourage, but do not necessarily require, cooperation, transparency, or disclosure of the fact that TAR is being used, metrics and processes involved in the TAR review, or sharing of which documents were used in training or validation. Cases that have required disclosures generally involve a demonstrated production deficiency; misconduct that requires disclosures to further assess the responding party's process; or disregard of an ESI protocol that does not permit TAR.

A. Courts Encourage Cooperation and Transparency for TAR

Courts have generally encouraged parties to disclose their intended use of TAR. While early cases tended to emphasize that parties' cooperation in TAR cases weighed in favor of the court accepting use of TAR,¹⁰⁰ later cases have continued to encourage cooperation and transparency while also holding that a responding party generally does not have any duty in this regard. The emergence of TAR 2.0 complicated disclosure because seed and training sets became less meaningful than in TAR 1.0.¹⁰¹

100. See, e.g., *Progressive Cas. Ins. Co. v. Delaney*, No. 2:11-cv-00678-LRH-PAS, 2014 WL 3563467, at *10 (D. Nev. Jul. 18, 2014) (“[T]echnology assisted review of ESI [does] require[] an unprecedented degree of transparency and cooperation among counsel in the review and production of ESI responsive to discovery requests.”).

101. See Section II.B. With the evolution of TAR technology from only TAR 1.0 to also include TAR 2.0, “the contents of the seed set [have become] much less significant.” *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125, 128; see also *Maura R. Grossman & Gordon V. Cormack, Comments on “The Implications of Rule 26(g) on the Use of Technology-Assisted Review,”* 7 FED. CTS. L. REV. 285, 298 (2014).

The court in *Da Silva Moore* stated that “the best approach” if a party wants to use TAR “is to follow the Sedona Cooperation Proclamation model,” “[a]dvice opposing counsel that you plan to use [TAR] and seek agreement”¹⁰² The defendant voluntarily agreed to provide the plaintiffs’ counsel with all nonprivileged relevant and nonrelevant seed-set documents. The court recommended “that counsel in future cases be willing to at least discuss, if not agree to, such transparency in the [TAR] process.”¹⁰³ This “transparency allows . . . opposing counsel (and the Court) to be more comfortable with [TAR], reducing fears about the so-called ‘black box’ of the technology.”¹⁰⁴ *Da Silva Moore*,¹⁰⁵ *Bridgestone Americas, Inc. v. International Business Machines Corp.*,¹⁰⁶ and *Federal Housing Finance Agency v. JP Morgan Chase & Co.*¹⁰⁷ all involved responding parties voluntarily agreeing to disclose either a sample (or more) from the training or validation sets. Further, in both *Da Silva Moore* and *Dynamo*

102. *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 184 (S.D.N.Y. 2012) (quoting Andrew Peck, *Search, Forward*, L. TECH. NEWS, Oct. 2011, at 25). *But see Rio Tinto*, 306 F.R.D. 125 (noting that where parties do not agree to transparency, courts were split); *Entrata, Inc. v. Yardi Sys., Inc.*, No. 2:15-cv-00102, 2018 WL 5470454 (D. Utah Oct. 29, 2018) (rejecting the notion that the Federal Rules of Civil Procedure and case law require transparent disclosures as a requirement to use TAR).

103. *Da Silva Moore*, 287 F.R.D. at 192.

104. *Id.*

105. *Id.*

106. *Bridgestone Ams., Inc. v. Int’l Bus. Machs. Corp.*, No. 3:13-1196, 2014 WL 4923014 (M.D. Tenn. July 22, 2014).

107. *Fed. Hous. Fin. Agency v. JPMorgan Chase & Co., Inc.*, No. 1:11-cv-06188-DLC (S.D.N.Y. Aug. 6, 2012) (July 24, 2012 Transcript at 14–15, 24); *see also id.* at 8–9 (commenting that the reliability of TAR depends on the process employed, particularly with respect to training the model using seed sets); *Fed. Hous. Fin. Agency v. HSBC N. Am. Holdings Inc.*, 2014 WL 584300, at *3 (same case).

Holdings II, the responding party agreed to allow the opposing party to have some role in coding the documents used to train the TAR algorithm.¹⁰⁸

While in *Rio Tinto* the court expressed its preference generally for cooperation in the disclosure of seed and training sets, it also recognized that where the parties do not agree on transparency, there are other ways to evaluate whether the training in the TAR process was done appropriately.¹⁰⁹ This may include, among other things, “statistical estimation of recall at the conclusion of the review as well as [determining] whether there are gaps in the production, and quality control review of samples from the documents categorized as non-responsive,” i.e., null-set samples.¹¹⁰

Similarly, in *Bridgestone*, the court advised that because it was allowing a change to the discovery approach midstream to include the use of TAR after search-term culling, it “expects full openness in this matter.”¹¹¹ In *Federal Housing Finance Agency*, the court appeared to encourage disclosure of the training sets by (1) stating that for the TAR process to work, “it needs transparency and cooperation of counsel;” and (2) confirming that the responding party would be voluntarily providing access to the nonprivileged documents in the seed set.¹¹² In *In re Biomet*

108. *Dynamo Holdings Ltd. P’ship v. Comm’r. of Internal Revenue (Dynamo Holdings II)*, No. 2685-11, 8393-12, 2016 WL 4204067, at *3 (T.C. July 13, 2016); *Da Silva Moore*, 287 F.R.D. at 192 (the collaborative seed set training process included disclosure and agreement on issue-tagging).

109. *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125 (S.D.N.Y. 2015).

110. *Id.* at 129. Recall is discussed in Section V.C.

111. *Bridgestone*, 2014 WL 4923014, at *1.

112. *Fed. Hous. Fin. Agency* (July 24, 2012 Transcript at 9, 14). See also Section II.B.

*M2a Magnum Hip Products Liability Litigation*¹¹³ and in *Aurora Cooperative Elevator Co. v. Aventine Renewable Energy-Aurora West, LLC*,¹¹⁴ while the courts expressly held that they could not require seed-set disclosure pursuant to the Federal Rules of Civil Procedure, they nevertheless encouraged the responding parties to “reconsider their position”¹¹⁵ in the “cooperative spirit” encouraged by The Sedona Conference Cooperation Proclamation.¹¹⁶ In addition, working cooperatively would “allay the risk of having to repeat the process” if it is later challenged and the court agrees that the “training was faulty or unreliable.”¹¹⁷

Responding parties who disclose and attempt to negotiate protocols with requesting parties can be rewarded for their cooperation when a dispute arises. *Livingston* mainly concerned whether a party could compel another to *use* a certain TAR protocol, rather than *disclose* TAR methodology. On this point, the defendant’s transparency as to its TAR methodology contributed in part to the court’s decision to allow the defendant to proceed with its own TAR protocol over the plaintiffs’ objections.¹¹⁸ The defendant disclosed its intention to use a TAR protocol to narrow the review population, the identity of the TAR

113. *In re Biomet M2a Magnum Hip Implant Prods. Liab. Litig.* (MDL 2391), No. 3:12-MD-2391, 2013 WL 6405156, at *1 (N.D. Ind. Aug. 21, 2013).

114. *Aurora Coop. Elevator Co. v. Aventine Renewable Energy-Aurora W., LLC*, No. 4:12CV230, 2015 WL 10550240, at *1 (D. Neb. Jan. 6, 2015).

115. *Id.* at *2.

116. *In re Biomet*, 2013 WL 6405156, at *2.

117. *Aurora Coop. Elevator*, 2015 WL 10550240, at *2. *See also* William Morris Endeavor Ent., LLC v. Writers Guild of Am. W., Inc, No. 219CV05465ABAFMX, 2020 WL 6162797, at *2 (C.D. Cal. June 8, 2020) (“Obtaining prior agreement [of the use of TAR] may be beneficial because of the certainty it provides. . .”).

118. *Livingston v. City of Chicago*, No. 16 CV 10156, 2020 WL 5253848, at *3 (N.D. Ill. Sept. 3, 2020). *See also* case discussion in Section III.C and Sections V.A and VI.A.

software it intended to use, and how it intended to validate the results.¹¹⁹ The court found those disclosures sufficient “to make the production transparent.”¹²⁰

B. No General Requirement to Disclose TAR Use or Process

While courts generally encourage transparency on TAR metrics and methodologies, they do not necessarily require disclosure of the TAR process¹²¹ or nonresponsive document sets associated with training or validation. In addition, courts may consider information about a party’s TAR process to be protected attorney work product. In *Winfield*, for example, the court required the defendant to submit a letter for in camera review describing its TAR process and training for document reviewers.¹²² The court ultimately reasoned that such information was protected attorney work product and therefore not subject to disclosure.¹²³

In *Entrata*, the court denied the requesting party’s request for disclosures of the responding party’s TAR process and metrics. *Entrata I* involved a defendant’s motion to compel production of the complete methodology and results of the plaintiff’s TAR process, claiming that it “need[ed] [plaintiff’s] TAR information in order to assess the adequacy of [plaintiff’s] document production, as well as [plaintiff’s] document collection and review

119. *Id.*

120. *Id.*

121. *But see* Klein v. Facebook, Inc., No. 20-cv-08570-LHK (VKD), 2021 U.S. Dist. LEXIS 175738, at *8 (N.D. Cal. Sep. 15, 2021) (requiring party to disclose intent to use TAR and how it will be used or not used in conjunction with search terms).

122. *Winfield v. City of New York*, No. 15-CV-05236 (LTS) (KHP), 2017 WL 5664852, at *5 (S.D.N.Y. Nov. 27, 2017).

123. *Id.* at *12.

efforts.”¹²⁴ The magistrate judge denied the motion, reasoning that the defendant did not provide “any specific examples of deficiencies” in the production “or any specific reason why it questions the adequacy of [plaintiff’s] document collection and review.”¹²⁵ The defendant also waited until the last day of fact discovery to file its motion, and “should have sought court intervention long ago” on any “specific concerns about [plaintiff’s] TAR process.”¹²⁶

On review by the district judge (*Entrata II*), the court affirmed the magistrate judge’s ruling, rejecting the defendant’s argument that the Federal Rules of Civil Procedure and case law required the plaintiff “in the first instance, to provide transparent disclosures as a requirement attendant to its use of TAR.”¹²⁷ The court distinguished the cases that the defendant cited, noting that they all involved TAR processes upon which the parties had agreed.¹²⁸ The parties’ ESI Order required them to raise any questions regarding search methodology within 30 days of the Order, which had long since passed.¹²⁹ The court further reasoned that “[t]he scope of the obligation to search for, and produce, ESI is circumscribed by Federal Rule of Civil Procedure 26(g)’ [b]ut [n]othing in Rule 26(g) obligates counsel to disclose the manner in which documents are collected, reviewed and produced in response to a discovery request.”¹³⁰

124. *Entrata, Inc. v. Yardi Sys., Inc.*, No. 2:15-cv-00102-CW-PMW, 2018 WL 3055755, at *3 (D. Utah June 20, 2018).

125. *Id.*

126. *Id.*

127. *Entrata*, 2018 WL 5470454, at *4 (D. Utah Oct. 29, 2018).

128. *Id.* at *6–7.

129. *Id.* at *6.

130. *Id.* (quoting Karl Schieneman & Thomas C. Gricks III, *The Implications of Rule 26(g) on the Use of Technology-Assisted Review*, 7 FED. CTS. L. REV. 239, 243 (2013)). *Cf. In re Broiler Chicken II*, 2022 WL 2812679, at *1 (E.D. Okla.

Unless deficiencies are shown, courts typically resist requests for “discovery on discovery,” including discovery of a responding party’s TAR process. In *Kaye v. New York City Health and Hospitals*, although the defendants disclosed that they planned to use TAR 2.0 technology, the software they intended to use, the review workflow, and the validation methodology, the plaintiff requested the defendants’ pre-TAR search terms and a review of the “culling” process.¹³¹ The court declined the plaintiff’s request for “discovery on discovery,” citing the plaintiff’s failure to meet and confer with the defendants or provide any examples of production deficiencies.¹³²

The court reasoned that “whether [documents are] produced electronically or otherwise, the Court does not believe that, in the first instance, the receiving party has a right to examine and evaluate the way the production was made or require collaboration in the review protocol and validation process.”¹³³ The court ruled that any inquiry into a responding party’s methodology must be based on identification of some deficiency and

Feb. 7, 2022) (discussed *infra*); see also, *Quirurgil, S.A.S. v. Hologic, Inc.*, No. 20-cv-10909-IT, 2022 WL 2719528 at *3 (D. Mass. Jan. 7, 2022). Based on the responding party’s representation in discovery responses that it was producing “all” responsive documents, and finding no evidence the contrary, the court refused to compel any further production based only on the fact the responding party had used TAR. However, it warned, “If, however, that representation is not accurate, and Hologic has only produced responsive documents it identified through Technology Assisted Review, it should promptly amend its responses and set forth any limitations based on the review it conducted.”

131. *Kaye v. N.Y.C. Health & Hospitals Corp.*, No. 18-CV-12137 (JPO) (JLC), 2020 WL 283702, at *2 (S.D.N.Y. Jan. 21, 2020).

132. *Id.* at *1.

133. *Id.* at *2.

must be proportional to the facts and circumstances of the case.¹³⁴

In similarly denying a request for “discovery about discovery,” the court in *Edwards v. Scripps Media, Inc.* considered a motion for a protective order to prevent the plaintiff from taking a post-production 30(b)(6) deposition on nineteen topics, each with up to ten subparts.¹³⁵ The court rejected the plaintiff’s request to inquire into the defendant’s TAR processes, review workflows, and discovery metrics such as the total volume of ESI “collected, reviewed, and produced.”¹³⁶ The court referred to precedent demonstrating that “[c]ourts have ordered ‘discovery about discovery’ when the record suggests that there is reason to distrust the responding party’s diligence.”¹³⁷

In some cases, where no deficiency by the responding party was shown, courts have refused to grant requesting parties access to nonresponsive documents in the training or validation sets to assess the efficacy of the responding party’s TAR process.¹³⁸

In *In re Biomet*, the court denied the plaintiffs’ request for production of the entire seed set used to train the TAR algorithm.¹³⁹ The court observed, “[t]hat request reaches well beyond the scope of any permissible discovery by seeking irrelevant or privileged documents used to tell the algorithm what

134. *Id.*

135. *Edwards v. Scripps Media, Inc.* 331 F.R.D. 116, 117–20 (E.D. Mich. 2019).

136. *Id.* at 120.

137. *Id.* at 125.

138. These cases involved TAR 1.0 procedures, where the training sets tend to be a more discreet subset of the overall TAR population. *See* Section II.B.

139. *In re Biomet M2a Magnum Hip Implant Prods. Liab. Litig.*, No. 3:12-MD-2391, 2013 WL 1729682 (N.D. Ind. Apr. 18, 2013); *In re Biomet*, 2013 WL 6405156 (N.D. Ind. Aug. 21, 2013).

not to find.”¹⁴⁰ The court reasoned that Federal Rule of Civil Procedure 26(b)(1) only makes relevant, nonprivileged information discoverable, and it commented that “I’m puzzled as to the authority behind [plaintiffs’] request.”¹⁴¹ The court also stated that although The Sedona Principles and local discovery rules encourage parties to cooperate in discovery, neither “expands a federal district court’s powers.”¹⁴² Accordingly, the court stated, the plaintiffs “can’t provide me with [the] authority to compel discovery of information not made discoverable by the Federal Rules.”¹⁴³

Similarly, in *Aurora Cooperative Elevator*, the court denied the plaintiff’s request to require the defendant to disclose the non-relevant documents within the training set.¹⁴⁴ Citing Rule 26(b)(1), the court found the defendant’s argument was “supported by the language, if not the spirit, of the civil discovery rules,” and that “the rules do not authorize ordering the defendants to disclose irrelevant information.”¹⁴⁵

C. Disclosure Required to Address Production Deficiencies

Courts have ordered disclosure of process and documents when a deficiency is shown in the responding party’s production or TAR process. Courts have held that reasonableness, rather than perfection, is the standard in discovery, and particularly in document review. Courts may order disclosure of nonresponsive documents where some degree of human error

140. *In re Biomet*, 2013 WL 6405156, at *1.

141. *Id.* at *1–2.

142. *Id.* at *2.

143. *Id.*

144. *Aurora Coop. Elevator Co. v. Aventine Renewable Energy-Aurora W. LLC*, No. 4:12CV230, 2015 WL 10550240, at *2 (D. Neb. Jan. 6, 2015).

145. *Id.*

is established, even if TAR processes are not considered demonstrably deficient overall. However, errors in a small subset of documents will not generally imply production-wide deficiencies or prompt additional disclosures.

Even where a TAR process was overall reasonable and not deficient, some additional disclosure may be appropriate if specific deficiencies are known. In *Winfield v. City of New York*, the court ordered the City to provide plaintiffs with sample sets of nonprivileged, nonresponsive documents that had been used to train the TAR software.¹⁴⁶ The plaintiffs objected to the City's use of TAR because they believed that the City's reviewers had overdesignated documents as nonresponsive during the training stages and had improperly trained the TAR software.¹⁴⁷ While the court did not find that the TAR process as a whole was defective, it nevertheless found that there was sufficient evidence to justify the plaintiffs' request.¹⁴⁸ The court reasoned "that the sample sets will increase transparency, a request that is not unreasonable in light of the volume of documents collected from the custodians, the low responsiveness rates of documents pulled for review by the TAR software, and the examples that [p]laintiffs have presented, which suggest there may have been some human error in categorization that may have led to gaps in the City's production."¹⁴⁹ Despite its order, the

146. *Winfield v. City of New York*, No. 15-CV-05236 (LTS) (KHP), 2017 WL 5664852 (S.D.N.Y. Nov. 27, 2017).

147. *See id.* at *12.

148. *See id.* at *25.

149. *Id.* at *9, 11. The court reasoned that responding parties are in the best position to manage their own discovery and are not held to a standard of perfection, noting that courts should not "insert themselves as super-managers of the parties' internal review processes, including training of TAR software, or . . . permit discovery about such process, in the absence of evidence of good cause"

court acknowledged that “[p]laintiffs have [not] identified anything in the TAR process itself that is inherently defective.”¹⁵⁰

A court may also order disclosure of information about the TAR process where a responding party both fails to provide transparency about its TAR process and where at least some indicia of possible production deficiencies exist. In *In re Broiler Chicken II*, the plaintiffs and a third-party respondent had negotiated and agreed upon search terms. After receiving the third party’s production and then discovering TAR had been used, the plaintiffs moved to compel all documents that hit on the negotiated search terms.¹⁵¹ The court noted the third party was not bound by any court order regarding its review and production process, and it had reserved the right to review documents prior to production in its agreement with the plaintiffs.¹⁵² However, it also acknowledged that the plaintiffs had legitimate questions about the use of TAR given potential “gaps in the production and legitimate questions about what was and was not produced;” for example, the third party had produced a low number of emails compared to the defendants’ production, which contained many more emails involving the third party. The court denied the requested relief, but it ordered the third party “to explain its culling method and to justify why documents were not produced based on those agreed upon search terms.”¹⁵³

At least one court has granted “discovery about discovery” through a Rule 30(b)(6) deposition where the parties had previously agreed to such an examination. In *In re Santa Fe National*

150. *Id.* at 11.

151. *In re Broiler Chicken II*, No. 6:20-2977-RJS-CMR, 2022 WL 2812679 (E.D. Okla. Feb. 7, 2022).

152. *Id.* at *3.

153. *Id.* at *3.

Tobacco Co. Marketing & Sales Practices & Products Liability Litigation, the plaintiffs sought a Rule 30(b)(6) deposition to determine “why the [d]efendants’ use of predictive coding failed to produce hundreds of thousands of potentially responsive documents.”¹⁵⁴ The plaintiffs also contended that the defendants’ use of TAR violated the ESI Order because they did not alert the plaintiffs that they were using it.¹⁵⁵ The court did not rule on whether the use of TAR violated the ESI Order but agreed that “[a]s a result of a predictive-coding issue, the [d]efendants did not produce all relevant, non-privileged discovery.”¹⁵⁶ The plaintiffs initially requested the deposition at a status conference on the TAR deficiencies, and the defendants agreed to it at that time.¹⁵⁷ The court thus enforced that agreement and allowed the plaintiffs to take one three-hour 30(b)(6) deposition to “inquire into the defendants’ discovery methodology.”¹⁵⁸

D. Disclosure Required to Address Misconduct

A court may require disclosure of training documents as a remedy where the responding party has repeatedly failed to implement an effective TAR process or otherwise engaged in misconduct. In *Independent Living Center v. City of Los Angeles*, the court ordered the use of TAR to search more than two million documents after “little or no discovery was completed” before the discovery cutoff, and the parties had ongoing disputes after “months of haggling” over search terms that yielded large

154. *In re Santa Fe Nat. Tobacco Co. Mktg. & Sales Practs. & Prods. Liab. Litig.*, No. MD 16-2695 JB/LF, 2018 WL 3972909, at *1 (D.N.M. Aug. 18, 2018).

155. *Id.* at *2.

156. *Id.* at *11.

157. *Id.* at *4.

158. *Id.* at *11.

numbers of documents for review.¹⁵⁹ Although the defendant was initially concerned about the costs of using TAR, it agreed to do so when the court stated that it would only be required to produce the top 10,000 documents identified by the TAR tool. At the defendant's request, and to avoid subsequent disputes, the court also ordered that the plaintiff "be involved in and play an active role" in the training process, including making "relevance determinations" in the training documents.¹⁶⁰ The court held that the defendant was not necessarily required to engage in a quality-assurance process as part of the TAR protocol; however, if the plaintiff insisted on such a process, then the plaintiff would have to pay for 50 percent of its costs.¹⁶¹

E. Failure to Disclose TAR Not Contemplated by ESI Protocol

In *Progressive Casualty Insurance Co. v. Delaney* and *In re Valsartan, Losartan & Irbesartan Products Liability Litigation*, the responding parties had agreed to ESI protocols, which were approved and entered as orders by the courts at the outset of discovery, providing for the use of traditional search terms and manual review. When the review became cost-prohibitive, however, the responding parties unilaterally decided to change course and use TAR without seeking the requesting party's agreement or leave of the court to amend the ESI Order.¹⁶² The court in *Progressive* denied the responding party's request to use

159. *Indep. Living Ctr. v. City of Los Angeles*, No. 2:12-cv-00551, Minute Order at 1, ECF 375 (C.D. Cal. June 26, 2014).

160. *Id.*

161. *Id.*

162. *In re Valsartan, Losartan, & Irbesartan Prods. Liab. Litig.*, 337 F.R.D. 610, 614 (D.N.J. 2020), also discussed in Sections III.B, III.C, V.A, and VI.A; *Progressive Cas. Ins. Co. v. Delaney*, No. 2:11-cv-00678-LRH-PAS, 2014 WL 3563467, at *2 (D. Nev. Jul. 18, 2014).

TAR and ordered it to produce all documents that hit on the search terms, subject to clawback of privileged documents or the application of privilege filters to withhold documents deemed more likely privileged and identified on a privilege log.¹⁶³ The court in *Valsartan* refused to “endorse a TAR protocol that was unilaterally adopted by a producing party without any input from the requesting party.”¹⁶⁴ Instead, the court ordered the responding party to use a TAR protocol that was negotiated in part but had not been fully agreed upon by the parties.¹⁶⁵

In *Valsartan*, the court ordered the production of a sample of 5,000 null-set documents of the plaintiff’s choosing in response to the defendant’s failure to timely disclose its use of TAR. The defendant first raised its intention to use TAR to cull documents over a year after the court had entered a stipulated ESI Order relating to searching that required timely disclosure if TAR would be used to cull documents. The parties negotiated and almost agreed on a TAR protocol, but the defendant would not agree to submit the protocol for the court to order, or to disclose a sample of 5,000 documents that TAR predicted were not responsive and were withheld from production. Although the defendant then represented to the court that it was abandoning TAR, it nevertheless used TAR and then sought permission to end its review of documents predicted by TAR as not responsive, based on proportionality considerations.

Noting that defendant had violated the ESI protocol “by not timely disclosing its use or possible use of its CMML [TAR 2.0],” the court entered the TAR protocol to which the defendants had previously objected as a court order, giving the plaintiffs the “right to review at the end of [defendant’s] production 5,000

163. *Progressive*, 2014 WL 3563467, at *11.

164. *In re Valsartan*, 337 F.R.D. at 622.

165. *Id.* at 624.

alleged nonresponsive documents.”¹⁶⁶ *Valsartan* demonstrates that parties should carefully follow provisions of ESI protocols.¹⁶⁷

166. *Id.* at 617, 624.

167. *See* Section VI regarding ESI protocols.

V. TAR WORKFLOW CONSIDERATIONS

Some issues discussed in the *First Edition Primer* have seen no judicial activity since its publication in 2017 (e.g., retraining the TAR Tool),¹⁶⁸ while others such as keyword culling before TAR and recall thresholds and validation have had multiple decisions.

A. Search-Term Culling Before TAR

Numerous cases have addressed the use of search terms to cull the document population before applying TAR. As illustrated below, there is a split in authority on whether the application of TAR after keyword culling is permissible.

1. Cases Allowing TAR after Keyword Culling

In *In re Biomet*, the court upheld the defendant's use of keywords to cull the collected dataset before applying TAR.¹⁶⁹ The defendant had used keywords to cull the collected document set from 19.5 million documents and attachments down to 3.9 million documents and attachments. After de-duplicating the documents, the defendant used TAR on this smaller data set, identifying almost two million documents for production. The court

168. For example, *Smilovits v. First Solar Inc.*, No. 2:12-cv-00555, slip op. at 1–2, ECF 248 (D. Ariz. Nov. 20, 2014) addressed whether the responding party can be required to respond to additional document requests after it has already used TAR to respond to a prior round of requests. The court held that the defendants' use of TAR in response to the plaintiffs' first round of document requests did not confine the plaintiffs' document discovery to the first round of requests. The court also noted that the defendants had not explained why the search for additional documents required the use of TAR, nor had they provided any concrete information about the costs to "retrain" the TAR tool to deal with subsequent requests.

169. *In re Biomet M2a Magnum Hip Implant Prods. Liab. Litig.*, No. 3:12-MD-2391, 2013 WL 1729682 (N.D. Ind. Apr. 18, 2013).

denied the plaintiffs' motion to require the defendant to redo its search and review process using TAR on the entire document population that it had collected, instead of just on the documents that resulted from a keyword search.¹⁷⁰

The plaintiffs argued that keyword search is less accurate than TAR and that the defendant's efforts were tainted by using keyword search before TAR. The court, however, stated that "[t]he issue before me today isn't whether predictive coding is a better way of doing things than keyword searching prior to predictive coding." Rather, "I must decide whether Biomet's procedure satisfies its discovery obligations[.]"¹⁷¹

The court rejected the plaintiffs' arguments, holding that the defendant's methodology satisfied the standard set forth in Federal Rules of Civil Procedure 26 and 34, namely, that its efforts must be "reasonable." The court also considered proportionality factors in its decision:

It might well be that predictive coding, instead of a keyword search . . . would unearth additional relevant documents. But it would cost Biomet a million, or millions, of dollars to test the [plaintiffs'] theory that predictive coding would produce a significantly greater number of relevant documents. Even in light of the needs of the hundreds of plaintiffs in this case, the very large amount in controversy, the parties' resources, the importance of the issues at stake, and the importance of this discovery in resolving the issues, I can't find that the likely benefits of the discovery proposed by [plaintiffs] equals or outweighs its

170. *Id.* at *2.

171. *Id.*

additional burden on, and additional expense to, Biomet.¹⁷²

In *Rio Tinto*, the court permitted the use of keyword culling before TAR because it was agreed to as part of the parties' stipulated protocol.¹⁷³ "The Court itself felt bound by the parties' protocol, such as to allow keyword culling before running TAR, even though such pre-culling should not occur in a perfect world." But the court also noted that "the standard for TAR is not perfection," nor "best practices," "but rather what is reasonable and proportional under the circumstances."¹⁷⁴

In *Bridgestone*, after an initial search-term cull done according to a stipulated court order, the court permitted the responding party to "switch horses in midstream" to undertake a hybrid approach, using TAR on the resulting document set of more than two million documents requiring review.¹⁷⁵ The court expressly recognized that TAR use was a "judgment call" and raised the option that the requesting party could also consider switching to TAR if it believed that would be more efficient for its own review.¹⁷⁶

Several recent decisions suggest a growing trend that courts find keyword culling prior to the use of TAR to be permissible. In *Livingston*, the court permitted the defendant to use TAR to review the culled document set over the plaintiffs' objection that

172. *Id.* at *3.

173. *Rio Tinto PLC v. Vale S.A.*, No. 14 Civ. 3042(RMB)(AJP), 2015 WL 4367250, at *1 (S.D.N.Y. July 15, 2015).

174. *See id.*

175. *Bridgestone Ams., Inc. v. Int'l Bus. Machs. Corp.*, No. 3:13-1196, 2014 WL 4923014, at *1 (M.D. Tenn. July 22, 2014).

176. *Id.* *See also* *United States ex rel. Proctor v. Safeway, Inc.*, No. 11-cv-3406, 2018 WL 1210965, at *3 (C.D. Ill. Mar. 8, 2018) (while not specifically evaluating the issue, the court did not object to party's TAR to conduct its responsiveness review on the dataset collected using search terms).

the review would create an incomplete production.¹⁷⁷ The court noted that application of the TAR tool to the original collection of documents would be unduly burdensome and wasteful. In its ruling, the court agreed with the defendant that it was using TAR as a responsiveness review tool and not a culling tool, and accordingly, it could be used after application of agreed upon search terms because “it satisfies the reasonable inquiry standard and is proportional to the needs of this case under the federal rules.”¹⁷⁸

In *Valsartan*, while holding that the defendant’s use of TAR after using negotiated search terms to cull the data for review and without notification to the plaintiffs violated the entered ESI protocol, the court made clear that the lack of notice was the issue, observing “[a]mple case law exists to support [defendants’] position that in appropriate instances layering may be done.”¹⁷⁹

Further, in *Maurer v. Sysco Albany, LLC*, the court upheld the defendant’s use of TAR post-search-term culling.¹⁸⁰ The parties had disagreed on the scope of custodians, date ranges, and search terms as well as the defendant’s use of TAR post-culling. The plaintiff proposed that the defendant either manually review all documents resulting from a broad list of search terms or use TAR on each custodian’s entire mailbox for a date range that covered a large time period. The defendant proposed that it use TAR after application of more narrow date ranges and

177. *Livingston v. City of Chicago*, No. 16 CV 10156, 2020 WL 5253848, at *1 (N.D. Ill. Sept. 3, 2020). See also case discussion in Sections III.C, IV.B, and VI.A.

178. *Id.* at *3.

179. *In re Valsartan, Losartan, & Irbesartan Prods. Liab. Litig.*, 337 F.R.D. 610, 615 (D.N.J. 2020). Also discussed in Sections III.B and IV.E and VI.A.

180. *Maurer v. Sysco Albany, LLC*, No. 1:19-CV-821(TJM/CFH), 2021 WL 2154144 (N.D.N.Y. May 27, 2021).

search terms. In upholding the use of TAR on data resulting from the application of search terms, the court noted that “the cost of conducting a linear review of every hit resulting from a search term-based search that includes all custodians’ names and name derivatives or reviewing the full custodian accounts using predictive coding dating back to 2013 is not proportional to the benefit and importance of ESI in resolving the issues presented in this case.”¹⁸¹ The court did, however, order the defendant to modify its search term list used for culling to include certain broader terms proposed by the plaintiff.¹⁸²

In *Huntsman v. Southwest Airlines Co.*, the plaintiff challenged, inter alia, the defendant’s use of keyword searches to limit to scope of ESI review.¹⁸³ The court rejected the plaintiff’s challenge, finding that the defendant’s “approach to using keyword searches and technology-assisted review in tandem does not offend the court’s expectations that the parties conduct a reasonable inquiry as required by the rules.”¹⁸⁴

In *In re Diisocyanates*, in ruling on several motions to compel regarding search-term culling, TAR, and validation protocols, the court held that a reasonable set of search terms could be used to cull down collected data prior to applying TAR.¹⁸⁵ The court declined, however, to approve either party’s proposed search-term lists, sending them back to renegotiate. In so doing, it noted that it is reasonable to use broader search terms to cull data prior to application of TAR because recall is more

181. *Id.* at *9.

182. *Id.*

183. *Huntsman v. Sw. Airlines Co.*, No. 19-cv-00083-PJH, 2021 WL 3504154, at *3 (N.D. Cal. Aug. 10, 2021).

184. *Id.* at *3.

185. *In re Diisocyanates Antitrust Litig.*, No. 18-1001, MDL No. 2862, 2021 WL 4295729 (W.D. Pa. Aug. 23, 2021), *adopted by In re Diisocyanates*, 2021 WL 4295719 (W.D. Pa. Sept. 21, 2021).

important than precision in those instances. “In this regard, it should be kept in mind that the function of search terms in this case is not to identify documents for production or even to select those that will be provided directly to human reviewers; it is to narrow the universe of documents to which TAR will be applied. In this context, precision, which is what defendants appear to seek, is relatively less important than recall.”¹⁸⁶

After keyword searches were complete and the *Diisocyanates* defendants asserted they had completed their TAR review, the special master considered the recall rates of the search terms and TAR processes together, as well as the quantity and quality of each process individually. He also stated that “because large swaths of documents had already been excluded by search terms, it is particularly important not to stop the [TAR 2.0] review of the remaining documents prematurely.”¹⁸⁷

In *Zhulinska v. Niyazov Law Group, P.C.*, the court found the defendant failed to prove unreasonable burden to review additional document volumes associated with the plaintiff’s requested keyword searches, in part because “predictive coding is an efficient and acceptable means of culling relevant responsive documents to be produced from ESI identified through keyword searches.”¹⁸⁸

Lastly, in *In re Broiler Chicken II*, the court held that a third party had not been required to seek approval from the court to use TAR in addition to negotiated keyword searches, where the third party had “reserved the right to review the documents for

186. *Id.* at *10. Recall and precision are discussed in Section V.C.

187. *In re Diisocyanates*, 2022 WL 17668470, at *12 (W.D. Pa. Oct. 19, 2022), modified by *In re Diisocyanates*, ECF No. 800 (W.D. Pa. Oct. 21, 2022).

188. *Zhulinska v. Niyazov Law Grp., P.C.*, No. 21-CV-1348, Memorandum and Order at 8, ECF 58 (E.D.N.Y. Nov. 12, 2021).

relevance” in negotiations about keywords.¹⁸⁹ However, given concerns about potential “gaps in the production,” the court ordered the third party to disclose its TAR methodology to the requesting party.¹⁹⁰

2. Cases Not Allowing TAR after Keyword Culling

While some courts have allowed TAR after keyword culling, others have disallowed it. In *FCA U.S. v. Cummins*, the court held that TAR should be applied before culling the document set with search terms.¹⁹¹ As the court explained, “[a]pplying TAR to the universe of electronic material before any keyword search reduces the universe of electronic material is the preferred method. The TAR results can then be culled by the use of search terms or other methods.”¹⁹²

In *In re Allergan Biocell Textured Breast Implant Products Liability Litigation*, the defendants sought to use TAR after search terms had been applied, citing burden and efficiency concerns.¹⁹³ The defendants also argued that that the application of search terms prior to TAR was “consistent with the majority of courts” that had addressed the issue.¹⁹⁴ The court disagreed

189. *In re Broiler Chicken II*, No. 6:20-2977-RJS-CMR, 2022 WL 2812679, at *2 (E.D. Okla. Feb. 7, 2022).

190. *Id.* at *3. *See also* Klein v. Facebook, Inc., 2021 U.S. Dist. LEXIS 175738, *8 (N.D. Cal. 2021) (requiring responding party to disclose its intent to use TAR and how it will be used in conjunction with search terms, but not requiring a party using TAR to follow or negotiate any particular protocol).

191. *FCA US LLC v. Cummins Inc.*, No. 16-12883, 2017 WL 2806896 (E.D. Mich. Mar. 28, 2017).

192. *Id.* at *1.

193. *In re Allergan Biocell Textured Breast Implant Prods. Liab. Litig.*, No. 2:19-md-2921 (BRM)(ESK), 2022 WL 16630821, at *1 (D.N.J. Oct. 25, 2022).

194. *Id.* at *2.

with the defendants’ “characterization of the case law,” noting that “[t]here is no such general principle espoused by the courts or the commentators.”¹⁹⁵ In finding that the defendants could not use TAR after search terms, the court emphasized the defendants had not sufficiently established the burden, and that the court-ordered ESI Protocol stipulated by the parties required them to cooperate, but they had not reached agreement on TAR.¹⁹⁶

The court in *Progressive* also considered the court’s ESI order.¹⁹⁷ The court denied the plaintiff’s request, which it made late in the discovery process and without agreement from defendant, to switch from the search terms and manual review process provided for in the court’s ESI order to search-term culling followed by TAR. The court reasoned that the plaintiff’s proposal violated the parties’ stipulated ESI protocol, as entered by the court, which had been contentiously negotiated by the parties. Further, the court criticized the plaintiff’s plan to apply TAR only to documents hitting the search terms, observing that its proposed process “lacks transparency and cooperation regarding the search methodologies [to be] applied” and would therefore be inconsistent with the “best practices” guide of its own TAR vendor.¹⁹⁸

B. Validation

Some courts have held that when a party uses TAR, the Federal Rule of Civil Procedure 26(g) “reasonable inquiry” standard incorporates an obligation for the responding party to

195. *Id.*

196. *Id.* at *4.

197. *Progressive Cas. Ins. Co. v. Delaney*, No. 2:11-cv-00678-LRH-PAL, 2014 WL 3563467 (D. Nev. July 18, 2014). Section VI discusses protocols.

198. *Id.* at *10.

validate its results.¹⁹⁹ Courts may require validation regardless of whether parties use TAR or keyword searches. *City of Rockford v. Mallinckrodt ARD Inc.* involved a responding party that had refused to validate the results of its keyword searches. While the parties had agreed to use of keyword searches, they approached the court at an impasse on post-production validation processes.²⁰⁰ The plaintiffs proposed that the defendants provide a random sample of the null set, followed by meeting and conferring to determine whether any additional terms or term modifications were necessary. The court agreed, reasoning that “random sampl[ing] of the null set is a part of the TAR process” to quantify “the documents that will be missed and not produced,” and there is “no reason . . . that a random sampling of the null set cannot be done when using key word searching.”²⁰¹ The court adopted the parties’ proposed ESI order “with the inclusion of Plaintiffs’ proposal that a random sample of the null set will occur after the production and that any responsive documents found as a result of that process will be produced.”²⁰²

In one early TAR case, *Independent Living Center v. City of Los Angeles*, after the parties disagreed whether the TAR advisor had said “quality control” (validation) was needed, the court

199. *In re Diisocyanates Antitrust Litig.*, No. 18-1001, MDL No. 2862, 2021 WL 4295729 at *6 (W.D. Pa. Aug. 23, 2021), *adopted by In re Diisocyanates*, 2021 WL 4295719 (W.D. Pa. Sept. 21, 2021).

200. *City of Rockford v. Mallinckrodt ARD Inc.*, 326 F.R.D. 489 (N.D. Ill. 2018).

201. *Id.* at 493, 494.

202. *Id.* at 496. *But see* *Jim Hawk Truck-Trailers of Sioux Falls, Inc. v. Crossroad Trailer Sales & Serv. Inc.*, No. 4:20-CV-04058-KES, 2022 WL 3010143, at *7 (D.S.D. July 29, 2022) (considering only relevancy rate of last 2,000 documents reviewed in TAR 2.0 workflow, among other factors, to determine further review would not be proportional).

held that if the requesting party wanted validation done, it would have to share costs for that process.²⁰³

Beyond the threshold question of whether a party must validate, opinions focus on the validation metrics of recall and precision. When using TAR to find responsive documents, “recall” is a metric that represents an estimate of the percentage of responsive documents that are found out of the entire set of responsive documents in the TAR document set.²⁰⁴ “Precision” represents an estimate of the percentage of documents that are truly responsive out of the set of documents identified as potentially responsive.²⁰⁵

1. Role of Recall

Generally, recall metrics receive more attention from parties than precision metrics. In *Lawson v. Spirit AeroSystems*, the defendant used TAR to produce with a recall of approximately 85

203. *Indep. Living Ctr. v. City of Los Angeles*, No. 2:12-cv-00551, Minute Order at 3, ECF 375 (C.D. Cal. June 26, 2014) (“It is a feature available in predictive coding which quantifies the level of accuracy in the search. The fact that it exists in the system does not mean that the City has to employ it and pay for it”).

204. “When describing search results, recall is the number of documents retrieved from a search divided by all of the responsive documents in a collection. For example, in a search for documents relevant to a document request, it is the percentage of documents returned compared against all documents that should have been returned and exist in the data set.” *The Sedona Conference Glossary: eDiscovery & Digital Information Management, Fifth Edition*, 21 SEDONA CONF. J. 263, 360–61 (2020) (citing *The Sedona Conference, Best Practices Commentary on the Use of Search and Information Retrieval Methods in E-Discovery*, 15 SEDONA CONF. J. 217 (2014)).

205. “When describing search results, precision is the number of true positives retrieved from a search divided by the total number of results returned. For example, in a search for documents relevant to a document request, it is the percentage of documents returned that are actually relevant to the request.” *Id.* at 354.

percent, which the court confirmed was reasonable and within a typical range for TAR matters.²⁰⁶ The plaintiff had demanded that the defendant switch from keyword searching to a TAR methodology, which the defendant ultimately agreed to do, subject to filing a motion to shift costs based on proportionality.²⁰⁷ An initial review using TAR 2.0 achieved a 68.5 percent recall rate of responsive documents, but the plaintiff insisted that the process be repeated until a 75 to 85 percent recall rate was achieved. The defendant agreed to 80 percent recall and then, after stopping its review, determined that it had reached 85 percent recall.²⁰⁸

Even then, however, the plaintiff moved to compel the defendant to perform a second-level review of the set of residual TAR documents: 1,850 potentially responsive TAR documents that were reviewed in first-level review, but not in the second-level review, once the desired recall rate was reached.²⁰⁹

The court denied the motion, explaining that the defendant's TAR review process was reasonable, and that the plaintiff's request for additional review was disproportionate to the needs of the case.²¹⁰ The court noted that at an expense of \$600,000, only 3.3 percent of the 322,000-document set was found to be responsive, and the defendant produced 85 percent of those responsive documents.²¹¹ The court rejected the perfection that the

206. *Lawson v. Spirit AeroSystems, Inc.*, No. 18-1100-EFM-ADM, 2020 WL 1813395 (D. Kan. April 9, 2020). *See also Lawson*, 2020 WL 3288058 (D. Kan. Jun. 18, 2020), *aff'd*, 2020 WL 6939752 (D. Kan. Nov. 24, 2020), and Sections III.C and VIII.B.

207. *Lawson*, 2020 WL 1813395, at *4; *see also Lawson*, 2020 WL 3288058, at *6.

208. *Lawson*, 2020 WL 1813395, at *7–8.

209. *Id.* at *5.

210. *Id.* at *8.

211. *Id.* at *16.

plaintiff “effectively demand[ed], which is a 100 percent target recall rate.”²¹² Ultimately, the plaintiff had to pay for its unreasonable demands when the court approved fee shifting of the defendant’s TAR costs to the plaintiff, as discussed below.²¹³

In *In re Diisocyanates*, the parties proffered dueling proposals on the use of certain search terms and specific TAR methodologies.²¹⁴ The court-appointed special master found that due to the complexities of TAR, Rule 26(g)’s reasonable inquiry requirement requires the responding party to validate its TAR methodology.²¹⁵ After examining the plaintiffs’ and the defendants’ proposed TAR methodologies, the special master concluded that the defendants’ proposed methodology contained serious flaws that would preclude them from certifying that their discovery responses were reasonable under Rule 26(g).²¹⁶ Among other matters, the defendants proposed to calculate estimated recall based on elusion sampling²¹⁷ of the unseen TAR collection and did not include documents that failed to hit on search terms, which may have resulted in an overestimation of the recall rate.²¹⁸ The special master held, “In the absence of [an agreement providing otherwise], it would be plainly unreasonable to

212. *Id.* at *9.

213. *See id.*

214. *In re Diisocyanates Antitrust Litig.*, No. MC 18-1001, MDL No. 2862, 2021 WL 4295729 (W.D. Pa. Aug. 23, 2021), *adopted by In re Diisocyanates*, 2021 WL 4295719 (W.D. Pa. Sept. 21, 2021).

215. *In re Diisocyanates*, 2021 WL 4295729 at *6 (W.D. Pa. Aug. 23, 2021).

216. *Id.* at *9.

217. Elusion is “[t]he percentage of documents of a search’s null set that were missed by the search, usually determined with review of a random sample of the null set.” *The Sedona Conference Glossary: eDiscovery & Digital Information Management, Fifth Edition*, 21 SEDONA CONF. J. 263, 304 (2020). Elusion was used to estimate recall in *Diisocyanates*.

218. *In re Diisocyanates*, 2021 WL 4295729, at *9.

calculate estimated recall for the TAR portion of the process alone.”²¹⁹

The *Diisocyanates* defendants then used keyword searches and a TAR 2.0 review workflow, resulting in recall rates from both processes that ranged from 74 to 89 percent, which the special master held was reasonable and met the 70 to 80 percent range the parties had represented as generally acceptable.²²⁰ The special master’s analysis included not only quantitative recall considerations, but also qualitative analysis of keyword and TAR validation sets, which were samples of documents not found by those workflows.²²¹ The qualitative analysis generally supported a conclusion that, on their own, any remaining responsive documents were insufficiently valuable to justify further search or review because they were similar to documents that were found.²²² The validation process did not require re-reviewing the accuracy of a sample of the already-reviewed documents.²²³

Some defendants were nevertheless required to continue review based on their last batches before stopping the review, which were 19 percent and 15 percent relevant. The special

219. *Id.*

220. *In re Diisocyanates*, 2022 WL 17668470, *11, 18 (W.D. Pa. Oct. 19, 2022), modified by *In re Diisocyanates*, ECF No. 800 (W.D. Pa. Oct. 21, 2022).

221. *Id.*, at *4–7. The special master also recognized limitations of recall when analyzing reasonability of a search process. *Id.* at 6 (“At the same time, broad validation statistics such as recall, standing alone, are of limited utility in ascertaining whether a party has done a reasonable job of searching for such rare documents.”).

222. *Id.* at *4–7.

223. *Id.* at *8 (“The defendants’ methodology may be imperfect, and it may result in higher estimated recall figures than if the plaintiffs’ approach were used, but it is not unreasonable, particularly given the extent by which the defendants exceeded the lower end of the acceptable range”).

master instructed the parties to continue their review at least until relevance declined to 10 percent and the responsive documents in the last-reviewed batches were insufficiently valuable, based on proportionality factors.²²⁴

2. Role of Precision

While recall metrics tend to have some established range of acceptability when using TAR, acceptable precision metrics that correspond to those recall points can vary widely from case to case. While cases dealing in these metrics focus on how low recall may reasonably be, one case deals in the opposite issue: how low precision may reasonably be (despite involving higher recall). In *In re Domestic Airline Travel Antitrust Litigation*, a multi-district class action, the parties had entered into a validation protocol “to ensure accuracy and completeness.”²²⁵ One business day before the production deadline, the defendant provided erroneous TAR validation metrics to the plaintiffs, reporting an estimated recall of 85 percent and an estimated precision of 58 percent. The defendant also provided the validation sampling metrics required by the TAR protocol. “When Plaintiffs analyzed the metrics, they found that the statistics from the validation sample indicated that the TAR process resulted in a recall of 97.4% and precision of 16.7%,” in contrast to the metrics provided by defendant.²²⁶ After exchanges between the parties, the defendant acknowledged that it had made an error.²²⁷ The court stated that “the answer seems to be that unless

224. *Id.* See Section VII, discussing the proportionality analysis.

225. *In re Domestic Airline Travel Antitrust Litig.*, No. 15-1404 (CKK), 2018 WL 4441507, at *3 (D.D.C. Sept. 13, 2018).

226. *Id.* at *4.

227. *Id.*

[defendant] starts the process over, Plaintiffs must review all the documents.”²²⁸

In granting the plaintiffs’ motions to extend fact discovery, the court noted that “[defendant’s] production of core documents . . . varied greatly from the control set in terms of the applicable standards for recall and precision and included a much larger number of non-responsive documents that [sic] was anticipated. Additionally, Plaintiffs diligently sought an amendment of the schedule after it became apparent that there was no way to resolve the excess non-responsive document issue short of starting over, and the 70 attorneys engaged in document review were not going to be able to complete the job under the current deadlines.”²²⁹

228. *Id.*

229. *Id.* at *7.

VI. DEFERENCE TO COURT-ORDERED ESI PROTOCOLS

As ESI protocols have become increasingly routine, courts have assessed a responding party's production decisions against any governing protocol, often enforcing the provisions negotiated by the parties or imposed by the court.²³⁰ Where no ESI protocol exists, however, the outcome is more varied.

In *Livingston* and *Valsartan*, the existence of a negotiated and entered ESI protocol dictated how the court handled a party's decision to use TAR.

In *Livingston*, the court ruled that the defendant's use of TAR was permissible because it did not contradict the existing protocol ordered by the court.²³¹ In that case, the parties had spent two years negotiating an ESI protocol, which was silent on the method and process for review but included a detailed process for collection and keyword culling. After the court entered the protocol, the defendant notified the plaintiffs that it intended to use TAR to review the keyword-culled documents. The plaintiffs objected, arguing that because the defendant never mentioned using TAR during the protocol negotiations, doing so would violate the protocol. The court disagreed, noting that the protocol "did not set forth the review methodology that the City must use to identify responsive ESI."²³²

230. See also Section V.A on use of TAR after search-term culling.

231. *Livingston v. City of Chicago*, No. 16 CV 10156, 2020 WL 5253848 (N.D. Ill. Sept. 3, 2020). See also case discussion in Sections III.C, IV.B, and V.A.

232. *Id.* at *3; see also *id.*, citing *The Sedona Principles, Third Edition*, *supra* note 3, Principle 6 (citing Sedona Principle 6, court held that the defendant could use TAR to review the culled documents because "Responding parties are best situated to evaluate the procedures, methodologies, and technologies appropriate for preserving and producing their own [ESI].").

In contrast, the court in *Valsartan* ruled that the defendant violated the existing ESI protocol when it did not timely disclose that it would use TAR to cull documents without the plaintiffs' consent, because the protocol required timely disclosure when its use was reasonably foreseeable.²³³ In ruling that the defendant violated the protocol, however, the court nevertheless noted that it "agree[d] with the line of cases that holds that a producing party has the right in the first instance to decide how it will produce its documents."²³⁴

Whether parties unilaterally design their own TAR protocol or enter into one by agreement or court order, it is important to understand what such protocols require and how those requirements may be treated by the Court. In *Domestic Airline*, for example, the parties entered into a validation protocol "to ensure accuracy and completeness."²³⁵ That agreement was later used to support the plaintiffs' successful request for an extension of fact discovery where the defendant's production demonstrated a low level of precision, resulting in the production of "millions of non-responsive documents."²³⁶ The protocol required the defendant to "set a minimum estimated recall rate of 75% but [to] endeavor to achieve a higher estimated recall rate if that rate may be obtained with a reasonable level of precision through reasonable additional training effort."²³⁷ In granting the plaintiffs' extension request, the court reasoned that the TAR

233. *In re Valsartan, Losartan, & Irbesartan Prods. Liab. Litig.*, 337 F.R.D. 610, 617 (D.N.J. 2020). This case is also discussed in Sections III.B., III.C, IV.E., and V.A.

234. *Id.* at 616, citing *Hyles v. New York City*, 10 Civ. 3119 (AT)(AJP), 2016 WL 4077114, at *2 (S.D.N.Y. Aug. 1, 2016).

235. *In re Domestic Airline Travel Antitrust Litig.*, No. 15-1404 (CKK), 2018 WL 4441507, at *3 (D.D.C. Sept. 13, 2018).

236. *Id.* at *4.

237. *Id.* Recall and precision are discussed in Section V.C.

protocol noted that a reasonable level of precision was a concern, contradicting the defendant's argument that the plaintiffs wanted a high level of TAR recall "without focusing on precision" and "got what they bargained for."²³⁸

Courts have reached differing conclusions on whether a responding party may switch to TAR in the middle of discovery after having previously agreed to use search terms and manual review.

In *Progressive*,²³⁹ the court denied the plaintiff's request to use TAR. The factors the court cited included: the plaintiff sought to use TAR extremely late in the discovery period; it had not yet produced a single document; it had previously agreed in the parties' ESI protocol to use search terms and manual review; it was not willing to reveal its coding decisions and irrelevant documents in the seed and later training sets; and it made the decision to switch to TAR unilaterally, without informing the defendants or the court.²⁴⁰ According to the court, the parties had "spent months narrowing search terms," at the plaintiff's insistence, to reduce its burden.²⁴¹ The narrowed search terms that the parties agreed on yielded 565,000 "hit" documents out of a total population of 1.8 million. Although the plaintiff had initially represented that it would begin production in September 2013 and complete it by the end of October 2013, it advised the requesting party on December 20, 2013, that the process of

238. *Id.* at *5. See also *Youngevity Int'l Corp. v. Smith*, No. 16-cv-00704-BTM (JLB), 2017 WL 6541106, at *1, *12 (S.D. Cal. Dec. 21, 2017) (raising fee-shifting option for requesting party to conduct TAR on "document dump" where responding party produced all results of keyword searches without doing any relevance review to remove nonresponsive documents).

239. *Progressive Cas. Ins. Co. v. Delaney*, No. 2:11-cv-00678-LRH-PAL, 2014 WL 3563467 (D. Nev. July 18, 2014).

240. *Id.* at *8–10.

241. *Id.* at *5.

reviewing the documents retrieved by the search terms was unworkable.²⁴²

As an alternative to manual review, the plaintiff proposed to apply TAR to the 565,000 documents that “hit” on the search terms and estimated that plaintiff’s TAR process would result in a recall of 70 to 80 percent (i.e., that it would find 70 to 80 percent of the total number of relevant documents in the collection). The plaintiff would then manually review the documents identified by TAR for production.²⁴³

The *Progressive* court rejected the plaintiff’s proposal on the grounds that it had previously agreed to manually review the search term hits and it was too late to change course, particularly since its proposal lacked transparency and cooperation and would further delay completion of discovery. The court indicated, however, “[h]ad the parties worked with their e-discovery consultants and agreed at the onset of this case to a predictive coding-based ESI protocol, the court would not hesitate to approve a transparent, mutually agreed upon ESI protocol.”²⁴⁴

Similarly, in *In re Allergan Biocell*, the court considered the parties’ ESI protocols in denying the defendant’s request to apply TAR after the application of search terms.²⁴⁵ The court noted that the ESI protocols addressed the use of search filtering technology and required the parties to confer and agree upon the application of any such technology, including TAR.

242. *Id.* at *4–5.

243. *See id.*

244. *Id.* at *9.

245. *In re Allergan Biocell Textured Breast Implant Prods. Liab. Litig.*, No. 2:19-md-2921 (BRM)(ESK), 2022 WL 16630821, at *1 (D.N.J. Oct. 25, 2022).

In *Bridgestone*,²⁴⁶ in contrast, the court permitted the plaintiff to change its search-and-review methodology to TAR mid-stream, based on the plaintiff's determination that it would be a much more efficient process, despite the defendant's objections that the request was an "unwarranted change in the original case management order," and that it would be unfair to allow the use of TAR "after an initial screening has been done with search terms."²⁴⁷ In permitting the plaintiff "to switch horses in midstream," the court observed "the use[] of predictive coding is a judgment call, hopefully keeping in mind the exhortation of Rule 26 that discovery be tailored by the court to be as efficient and cost-effective as possible." The court noted that the case involved "millions of documents to be reviewed with costs likewise in the millions."²⁴⁸

246. *Bridgestone Ams., Inc. v. Int'l Bus. Machs. Corp.*, No. 3:13-1196, 2014 WL 4923014 (M.D. Tenn. July 22, 2014).

247. *See id.* at *1.

248. *Id.*

VII. PROPORTIONALITY

Courts may weigh proportionality factors in assessing whether a responding party employing TAR has discharged its discovery obligations. For example, in *Davine v. The Golub Corp.*, the court permitted defendants to use TAR to review documents and “cease their review [once] . . . they made a good faith determination that the burden of continuing the review outweighs the benefit in terms of identifying relevant documents.”²⁴⁹

In *City of Rockford v. Mallinckrodt*, the court rejected the responding party’s argument that reviewing a random sample from the null set to validate the results of the keyword search process would be disproportionate.²⁵⁰ The court noted that in its experience and understanding, reviewing a random sample of a null set would not be unreasonably expensive or burdensome.²⁵¹ The court stated, “[v]alidation and quality assurance are fundamental principles to ESI production. The process provides the reasonable inquiry supporting the certification under Rule 26(g).”²⁵² The court also stated, “critically, Defendants have failed to provide any evidence to support their contention” that it would be expensive and burdensome.²⁵³

Although the producing party’s argument focused on expense and burden, the court went on to analyze the proportionality factors under Federal Rule of Civil Procedure 26(b)(1). First, the court stated that the issues at stake—having to do with pharmaceuticals pricing—were substantial, having garnered

249. *Davine v. Golub Corp.*, No. 3:14-cv-30136-MGM, 2017 WL 549151, at *1 (D. Mass. Feb. 8, 2017).

250. *City of Rockford v. Mallinckrodt ARD Inc.*, 326 F.R.D. 489 (N.D. Ill. 2018).

251. *See id.* at 495.

252. *Id.* at 494.

253. *Id.* at 495.

national media attention.²⁵⁴ Second, the court found that the potential amount in controversy was “extraordinary,” and “in today’s legal vernacular, these are ‘bet the company’ cases.” Third, the defendants had access to the majority of the relevant information in the case. Fourth, “as to resources, the main defendant is a large international pharmaceutical company with substantial resources.” Fifth, the court found that the ESI would “play a key role in resolving the issues in these cases.” Finally, the court found that “the burden and expense of a random sampling of the null set does not outweigh its likely benefit of ensuring proper and reasonable—not perfect—document disclosure.”²⁵⁵ Accordingly, the court ordered defendants to review a random sample of the null set based on a 95 percent confidence level with a margin of error of plus-or-minus 2 percent.²⁵⁶

ESI production can still be burdensome even when the producing party uses TAR, so proportionality may be an issue even when TAR is used. In *County of Cook v. Bank of America Corp.*, the district court rejected the plaintiff’s argument that the defendants’ use of TAR affected the magistrate judge’s assessment of the “burdens and [] volume of data” that would result from the searches the plaintiff proposed.²⁵⁷ The court pointed out that the defendants to date had reviewed 400,000 documents for the 38 court-ordered custodians and had 36 attorneys working full time for three months reviewing documents. Additionally, the

254. *Id.*

255. *Id.* at 495.

256. *See id.* at 496. *Cf.* *Jim Hawk Truck-Trailers of Sioux Falls, Inc. v. Crossroad Trailer Sales & Serv. Inc.*, No. 4:20-CV-04058-KES, 2022 WL 3010143, at *7 (D.S.D. July 29, 2022) (considering only relevancy rate of last 2,000 documents reviewed in TAR 2.0 workflow, among other factors, to determine further review would not be proportional).

257. *County of Cook v. Bank of Am. Corp.*, No. 14 C 2280, 2019 WL 5393997, at *3 (N.D. Ill. Oct. 22, 2019).

defendants' ESI vendor costs were projected to exceed \$1.3 million. The court held that "[t]hese numbers undermine any suggestion that Defendants' use of TAR to aid in their ESI production affects [the magistrate judge's] proportionality basis for denying the County's request for ESI from the [additional] custodians at issue here."²⁵⁸

In *In re Diisocyanates*, the special master analyzed whether proportionality considerations justified defendants stopping their TAR 2.0 review, with one defendant's last two batches being 15 percent responsive, and the other's was 19 percent. Given that this antitrust matter involved evidence that would be a "mosaic" of circumstantial evidence, the additional relevant documents that TAR continued to find were of sufficient value for the reviews to continue, even if "not entirely novel."²⁵⁹

258. *Id.*

259. *In re Diisocyanates Antitrust Litig.*, No. 18-1001, 2022 WL 17668470, *12 (W.D. Pa. Oct. 19, 2022), modified by *In re Diisocyanates*, ECF No. 800 (W.D. Pa. Oct. 21, 2022).

VIII. FEE SHIFTING

The committee notes to the 2015 amendments to Rule 26 include a reminder that “a responding party ordinarily bears the costs of responding.”²⁶⁰ However, in some cases involving TAR, courts have ordered cost shifting, and in so doing, paid particular attention to the efficiencies gained from using TAR or the inefficiencies resulting from a party’s refusal to adopt or timely propose it.

A. Costs Split Between Parties

In some cases, courts have departed from the general rule and have instead allocated costs of responding among the parties. In *Lawson v. Spirit AeroSystems*, the court granted the defendant’s motion to shift the TAR-related costs and allocated the costs 80 percent to the plaintiff and 20 percent to the defendant because the plaintiff had “wanted to proceed with the TAR process at a point in time when it was disproportional to the needs of the case.”²⁶¹ The parties had engaged in protracted negotiations and motion practice related to discovery, initially involving disputes relating to search terms and the proposed custodians. The plaintiff then insisted that the defendant switch to a TAR methodology and the defendant agreed, subject to filing a motion to shift costs if the effort was considered disproportionate. Throughout the TAR process, the defendant acceded to the plaintiff’s continued demands until it took the position, and the court agreed that it was finished. As discussed above, the court

260. FED. R. CIV. P. 26 advisory committee’s note to 2015 amendment. *See also*, *OSI Rest. Partners, LLC v. United Ohana, LLC*, No. 12353-CB, 2017 WL 396357, at *2 (Del. Ch. Jan. 27, 2017) (discussed Section III.C), adhering to this principle.

261. *Lawson v. Spirit AeroSystems, Inc.*, No. 18-1100-EFM-ADM, 2020 WL 3288058, at *22 (D. Kan. Jun. 18, 2020), *aff’d*, 2020 WL 6939752 (D. Kan. Nov. 24, 2020). *See also* Sections III.C and V.C for further discussion of this case.

declined to force the defendant to continue its review when its estimated recall met or exceeded even that initially demanded by the plaintiff.²⁶²

The court found it was appropriate to shift costs of the TAR review to the plaintiff because “Lawson’s continued pursuit of the ESI dataset via TAR was not proportional to the needs of the case,” and he had pursued “needlessly overbroad discovery.”²⁶³ Because Lawson had “wanted to proceed with the TAR process at a point in time when it was disproportional to the needs of the case,” the court held that he should bear much of the cost, to protect the defendant.²⁶⁴

In *Youngevity International v. Smith*, the parties had agreed to disclose keyword search hit reports.²⁶⁵ However, the plaintiffs later refused to do so and produced 4.2 million pages of its keyword hits without having reviewed them (and admitted that it further erroneously failed to produce another 700,000 documents). The plaintiffs argued that it had produced the documents exactly as the defendants requested, that every document produced had hit on at least one of the agreed-upon search terms, and that the volume of the production resulted from the defendants’ failure to narrow the search terms.²⁶⁶ The court disagreed, finding that the productions “improperly exceeded” the defendants’ requests and did not comply with the parties’ agreed-upon protocol.²⁶⁷ The court gave the plaintiffs two

262. See *Lawson*, 2020 WL 1813395 (D. Kan. Apr. 9, 2020); *In re Domestic Airline Travel Antitrust Litig.*, No. 15-1404 (CKK), 2018 WL 4441507, at *3 (D.D.C. Sept. 13, 2018).

263. *Lawson*, 2020 WL 3288058, at *21.

264. *Id.* at *22.

265. *Youngevity Int’l Corp. v. Smith*, No. 16-cv-00704-BTM (JLB), 2017 WL 6541106, at *1, *12 (S.D. Cal. Dec. 21, 2017).

266. *Id.* at *8.

267. *Id.* at *8.

options: (1) reproduce the documents after reviewing for responsiveness and privilege or (2) produce the 700,000 responsive documents omitted from prior productions without further review and pay the defendants' costs for applying TAR to those documents and documents from prior productions.²⁶⁸ The court also ordered the plaintiffs to reimburse the defendants for fees and expenses incurred in its motion.²⁶⁹

Finally, in *Independent Living Center v. City of Los Angeles*, certain TAR fees were ordered split between the parties.²⁷⁰ In that case, the court ordered the responding party to use TAR to identify the 10,000 most relevant documents without using previously identified documents as seeds, despite the increased cost to it.²⁷¹ However, the court ruled that if the plaintiff wanted any documents beyond the 10,000, it would have to pay 100 percent of the producing party's costs in producing them, including the attorney's fees incurred to review the additional documents.²⁷²

B. Other Awards of TAR Fees and Expenses

In some matters, courts must determine issues related to TAR fees and expenses, such as payments from funds to counsel in a class action. In other matters, courts must determine whether a particular statute requires the other party to pay for TAR.

One California state court decision shifted TAR-related costs to a requesting party, based on a state procedural rule permitting such allocation. In *Dremak v. Urban Outfitters, Inc.*, the

268. *Id.* at *8.

269. *See id.* at *11–12.

270. *Indep. Living Ctr. v. City of Los Angeles*, No. 2:12-cv-00551, Minute Order at 1, ECF 371 (C.D. Cal. June 13, 2014).

271. *Id.*

272. *Id.*

California Court of Appeal affirmed a trial court's post-judgment award to defendants, who prevailed in the case, of \$57,912.84 of costs associated with their production of documents in response to the plaintiffs' discovery requests, which included the use of TAR.²⁷³ Under California law, the trial court had discretion to grant the defendants' request for post-judgment taxation of these costs provided they were "reasonable and necessary."²⁷⁴

The defendants presented evidence that the search terms and custodians that the plaintiffs asked the defendants to use resulted in a population of more than 400,000 documents.²⁷⁵ The defendants then employed TAR to narrow the population to a production set of 1,658.²⁷⁶ The costs defendants sought consisted of payments "to vendors to process documents, conduct coding analytics to identify relevant documents, and to create and maintain a database to store thousands of documents."²⁷⁷ The court concluded that the defendants' evidence supported the trial court's finding that these costs were reasonable and necessary to the litigation and that the plaintiffs had not shown that finding constituted an abuse of discretion.²⁷⁸

In *In re Actos (Pioglitazone) Products Liability Litigation*, in determining common-benefit fees for plaintiffs' counsel in a large MDL, the court awarded attorneys' fees and expenses associated with TAR. It recognized that "[t]his MDL was one of the first to allow the use of a 'predictive coding' system to aid the

273. *Dremak v. Urban Outfitters, Inc.*, No. D071308, 2018 WL 1441834, at *7-8 (Cal. Ct. App. Mar. 23, 2018).

274. *See id.* at *8.

275. *Id.*

276. *Id.*

277. *Id.*

278. *Id.*

discovery process and the production of relevant documents.”²⁷⁹ The court further stated that “the predictive coding system provided a unique way to, in part, realistically manage the immense amount of information needed to be produced and reviewed in this MDL.”²⁸⁰ The court observed that “[t]he predictive coding system, although not perfect or fully realized, nonetheless, provided an innovative efficiency to the discovery process when compared to the existing, prevailing methods of review.”²⁸¹ The court concluded that the plaintiffs’ steering committee and defense counsel “expended tremendous time, and computer and legal expertise, to harness this technological possibility with a quite positive, if not complete, result. As this area involved cutting edge technology, those counsel who could bring their unique expertise and skill to the task were exceptionally valuable to the [plaintiffs’ steering committee].”²⁸²

In *Gabriel Technologies Corp. v. Qualcomm Inc.*, the court awarded more than \$2.8 million in fees incurred for the use of “computer assisted, algorithm-driven document review” for almost 12 million documents.²⁸³ The court awarded defendant attorney’s fees and TAR-related costs under federal patent law and for misappropriation claims under California’s Uniform Trade Secrets Act based on its finding that the plaintiff acted in bad faith by bringing “objectively baseless claims.” The court further found that the defendant’s use of TAR was “reasonable under the circumstances” of the case.²⁸⁴

279. *In re Actos (Pioglitazone) Prods. Liab. Litig.*, 274 F. Supp. 3d 485, 499 (W.D. La. 2017) (internal citations omitted).

280. *Id.*

281. *Id.*

282. *Id.* at 499–500.

283. *Gabriel Techs. Corp. v. Qualcomm Inc.*, No. 08cv1992 AJB (MDD), 2013 WL 410103, at *10 (S.D. Cal. Feb. 1, 2013).

284. *Id.*

IX. INTERNATIONAL ADOPTION OF TAR

TAR continues to be accepted and discussed in foreign jurisdictions.

The European Court of Human Rights recognized that “courts in at least two jurisdictions (the United Kingdom and Ireland) have approved in recent years the use of technology-assisted review . . . for the purposes of electronic disclosure in high-stakes civil litigation,” and reasoned that “[t]he rationale would apply with equal force in criminal cases of comparable complexity.”²⁸⁵ The court further noted that TAR “allows parties to save a significant amount of time and resources in analyzing large data sets.”²⁸⁶

In Ireland, the Irish High Court in *Irish Bank Resolution Corp. v. Quinn* granted a responding party’s motion to use TAR over the objection of the party requesting the production of documents, a ruling upheld by the Irish Court of Appeal.²⁸⁷

In England, the English High Court in *David Brown v. BCA Trading* approved the use of TAR over the objection of the requesting party.²⁸⁸ And in *Pyrrho Investments Ltd. v. MWB Property Ltd.* the parties jointly sought and obtained the approval of the English High Court to use TAR.²⁸⁹ The same court, in *Astra Asset Management UK Ltd. v. MUSST Investments LLB*, noted

285. Sigurður Einarsson v. Iceland, App. No. 39757/15, Partly Dissenting Opinion of Judge Pavli, (B)(15), Eur. Ct. H.R. Apr. 9, 2019, <https://hudoc.echr.coe.int/fre#%7B%22itemid%22:%5B%22001-193494%22%7D>}.

286. *Id.*

287. *Irish Bank Resol. Corp. v. Quinn*, [2015] IEHC 175 (H. Ct.) (Ir.), upheld by the Irish Court of Appeal (*see Court of Appeal Approves use of TAR for Discovery*, MCCANN FITZGERALD (Feb. 25, 2016)).

288. *David Brown v. BCA Trading Ltd.*, [2016] EWHC (Ch) 1464 (Eng.).

289. *Pyrrho Inv. Ltd. v. MWB Prop. Ltd.*, [2016] EWHC (Ch) 256 (Eng.).

that “where a party is intending to use technology assisted review, the intention should be notified to the other party.”²⁹⁰

A Hong Kong decision also held that a party did not need the court to authorize use of TAR, and “the use of analytic tools of this sort is to be expected” to review large volumes of ESI.²⁹¹

In Canada, in *Perlmutter v. Smith*, the Ontario Superior Court of Justice held that the respondent’s counsel could review documents for relevance, not just privilege, where the parties were court-ordered to agree on search terms for the respondent’s devices and had also agreed to use TAR.²⁹² The applicants had unsuccessfully objected to the respondent’s counsel “reviewing the documents to narrow the production set generated by TAR other than for privilege.”²⁹³ In *PM&C Specialist Contractors Inc. v. Horton CBI Ltd.*, the Alberta Court of Queen’s Bench declined to opine on what percentage of document review costs, including TAR, was a recoverable disbursement on a bill of costs.²⁹⁴

In *McConnell Dowell v. Santam Ltd*, the Supreme Court of Victoria recognized party agreement on use of TAR and reviewed a TAR report from a Special Referee used to oversee the TAR process.²⁹⁵ This case is cited in Australia as precedent for use of TAR as an appropriate tool to gain efficiency during the

290. *Astra Asset Mgmt. UK Ltd. v. Musst Investments; Musst Holdings Ltd v Astra Asset Mgmt. UK Ltd.*, [2020] EWHC (Ch) 1871 (Eng.).

291. *China Metal Recycling (Holdings) Ltd. (In Liquidation) v. Deloitte Touche Tohmatsu*, [2022] H.K.C. 2344 (C.F.I.) (citing, inter alia, *Da Silva Moore v. Publicis Groupe*, 287 F.R.D. 182, 183 (S.D.N.Y. 2012) and *Rio Tinto PLC v. Vale S.A.*, 306 F.R.D. 125 (S.D.N.Y. 2015)).

292. *Perlmutter v. Smith*, 2021 ONSC 1372, 2021 CarswellOnt 2055 (2021).

293. *Id.*

294. *PM&C Specialist Contractors Inc. v. Horton CBI Ltd.*, 2017 ABQB 400.

295. *McConnell Dowell Constructors (Aust) Pty Ltd. v. Santam Ltd.* (No 1) [2016] VSC 734 (Austl.).

eDiscovery process.²⁹⁶ Furthermore, additional cases have referenced the use of TAR without question to its acceptance.²⁹⁷ From the decisions, it appears that acceptance of TAR is no longer a threshold issue in Australia, and that when TAR is discussed, it is in general reference to its use or discussion of further details surrounding the process.²⁹⁸

296. *Mossmani v. Nationwide News Pty Ltd (No 2)*, [2018] NSWDC 113 (Austl.).

297. *Santos Limited v. Fluor Australia Pty Ltd (No 4)*, [2021] QSC 296 (Austl.); *Viiiv Healthcare Co V Gilead Sciences Pty Ltd (No 2)*, BC202009855; *Parbery v QNI Metals Pty Ltd (No. 12)*, [2018] QSC 276 (Austl.).

298. *See, e.g., Viiiv Healthcare Co v Gilead Sciences Pty Ltd (No 2)*, BC202009855 (discussion of TAR interplay with search terms).

X. USE OF TAR IN FEDERAL GOVERNMENT INVESTIGATIONS

Some United States government agencies have accepted the use of TAR for search and review in connection with document productions in regulatory investigations, particularly merger reviews. Implementing TAR in the context of government investigations raises some unsettled questions, and thus the responding party should consider proactively engaging with the government lawyers at the start of the eDiscovery process to discuss what specifications may be acceptable under a TAR protocol (including whether such a protocol is appropriate). Generally, these issues and the specifications for a TAR protocol will be worked out with agency staff on a case-by-case basis at the outset of the production process.

In October 2021, the Federal Trade Commission (FTC) issued an update to its Model Second Request for merger antitrust investigations, which includes specifications related to the use of TAR in response to Second Requests.²⁹⁹ The Model Second Request expressly contemplates the use of TAR, among other discovery tools, subject to certain requirements. Significantly, the 2021 update requires the responding party to address its intent to use TAR through a written submission to the FTC *prior to* applying TAR to identify responsive documents.³⁰⁰ This change is meant to more closely align the FTC Second Request process with that of the Department of Justice (DOJ) Antitrust Division.

299. Fed. Trade Comm'n, Request for Additional Information and Documentary Material Issued to [Company] (FTC Model Second Request) (revised Oct. 2021), https://www.ftc.gov/system/files/attachments/hsr-resources/model_second_request_-_final_-_october_2021.pdf.

300. *Id.* at 12 (Specification 30), 22 (Instruction I5). See also Holly Vedova, *Making the Second Request Process Both More Streamlined and More Rigorous During this Unprecedented Merger Wave*, FED. TRADE COMM'N (Sept. 28, 2021), <https://www.ftc.gov/news-events/blogs/competition-matters/2021/09/making-second-request-process-both-more-streamlined>.

The responding party also must disclose specified information to the FTC at the end of the document review process.³⁰¹ In particular, the responding party must:

[b](i) describe the collection methodology, including: (a) how the software was utilized to identify responsive documents; (b) the process the Company utilized to identify and validate the seed set documents subject to manual review; (c) the total number of documents reviewed manually; (d) the total number of documents determined non-responsive without manual review; (e) the process the Company used to determine and validate the accuracy of the automatic determinations of responsiveness and non-responsiveness; (f) how the Company handled exceptions ('uncategorized documents'); and (g) if the Company's documents include foreign language documents, whether reviewed manually or by some technology-assisted method; and [b](ii) provide all statistical analyses utilized or generated by the Company or its agents related to the precision, recall, accuracy, validation, or quality of its document production in response to this Request; and [c] identify the Person(s) able to testify on behalf of the Company about information known or reasonably available to the organization, relating to its response to this Specification.³⁰²

301. FTC Model Second Request, at 12 (Specification 30), 22 (Instruction I5).

302. *Id.* at 12 (Specification 30).

The Instructions to the Model Second Request further specify that the responding party must provide to the FTC:³⁰³ “(a) confirmation that subject-matter experts will be reviewing the seed set and training rounds; (b) recall, precision, and confidence-level statistics (or an equivalent); and (c) a validation process that allows Commission representatives to review statistically-significant samples of documents categorized as non-responsive documents by the algorithm.”³⁰⁴

Similarly, counsel for the Antitrust Division of the Department of Justice has provided guidance regarding TAR protocols in response to Division investigations, updated in March 2021, which also states that the use of TAR should be addressed with the DOJ before embarking on a TAR-based review.³⁰⁵ Notably, the Instructions section related to Production Format of the DOJ’s Model Second Request states the following: “Before using software or technology (including search terms, predictive coding, de-duplication, or similar technologies) to identify or eliminate documents, data, or information potentially responsive to this Request, the Company must submit a written description of the method(s) used to conduct any part of its search.”³⁰⁶ The DOJ Model Second Request also contains the same requirements as the FTC Model Second Request related to confirmation that subject-matter experts will review the seed set and training rounds, disclosure of recall, precision, and confidence-level statistics,

303. Second Request productions tend to use TAR 1.0 procedures, though TAR 2.0 is also in use.

304. FTC Model Second Request, at 22 (Instruction I5).

305. U.S. Dep’t of Justice, Request for Additional Information and Documentary Material Issued to [] Corporation (DOJ Model Second Request) (revised Mar. 2021), Instructions 3 and 4, <https://www.justice.gov/atr/file/706636/download>.

306. *Id.*

and a validation process that includes review of statistically significant samples of documents categorized as nonresponsive.³⁰⁷

It is important to note that actual practice may deviate from public guidance and policy statements. For example, in 2017, a senior attorney with the Department of Justice, Antitrust Division issued a public statement that the Division would not allow a party to conduct a manual review for responsiveness after the TAR process has been completed.³⁰⁸ However, the experience of eDiscovery practitioners who regularly engaged with the Division in following years was that the Division did, under certain circumstances, allow some second-level, manual responsiveness review after TAR. Moreover, other Divisions of the Department of Justice routinely allow manual review after the application of TAR. In addition, the DOJ has reserved the right to conduct manual review after TAR in cases where it has represented client agencies as defendants in litigation.

Thus, responding parties should continue to advocate for the most effective use of TAR and negotiate with agency staff to secure a favorable TAR protocol for their clients.

307. *Id.*

308. Tracy Greer, *Avoiding E-Discovery Accidents & Responding to Inevitable Emergencies: A Perspective from the Antitrust Division*, U.S. DEP'T OF JUSTICE (revised Mar. 2017), <https://www.justice.gov/atr/page/file/953381/download>.

XI. CONCLUSION

Since 2012, case law's broad consensus on TAR has evolved from an acceptable methodology to black letter law that where the responding party reasonably decides to use TAR, courts will permit it. With that acceptance, courts are now grappling with TAR issues involving technical issues, such as search-term culling, recall thresholds, and validation. Courts have been generally consistent in favoring cooperation and transparency among parties on discovery issues, and TAR is no different. While TAR may be an efficient approach for finding relevant documents, courts are not likely to force a TAR process on a reluctant responding party.

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309. This case is also referred to as *Federal Housing Finance Agency v. JP Morgan Chase & Co.*

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