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The Search Interest in Contract

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The Search Interest in Contract

Joshua A.T. Fairfield*

ABSTRACT: Parties often do not negotiate for contract terms. Instead, parties search for the products, terms, and contractual counterparties they desire. The traditional negotiation-centered view of contract leads courts to try to determine the meaning of the parties where no meaning was negotiated and to waste time determining the benefits of bargains that were never struck. Further, while courts have ample tools to validate specifically negotiated contract terms, they lack the tools to respond to searched-for terms. Although the law and literature have long recognized that there is a disconnect between the legal fictions of negotiation and the reality of contracting practice, no theory has emerged to replace fictional negotiation. Therefore, this Article develops a new search-oriented theory of contract and shows that search theory can explain contracting behavior where the fictions of negotiation fail. This Article then applies search theory to the common law of contract, the Uniform Commercial Code, and the growing world of Internet searches and electronic contracting.

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I. INTRODUCTION

Contract law suffers from misplaced focus. Currently, the magical moment in contract law is the “meeting of the minds,” the moment at which negotiated contract terms are solidified in the minds of all contracting parties. The model of contract with which legal scholars are most familiar imagines parties meticulously negotiating contract provisions with counterparties.

This meeting of the minds, or “negotiation model,” is not how most people (except large corporations) engage in contracting. Rarely today do parties negotiate terms with a specific counterparty. Rather, prospective purchasers search for counterparties that offer the set of contract terms they desire. For example, prospective purchasers generally do not negotiate for the price of computers or television sets. Instead, inquiring buyers might go to a website to compare prices, guarantees, and warranty terms already on offer. (Even the offline shopper will find that he spends more time searching than negotiating—the cost of shoe leather in comparison shopping is higher than the amount of time spent negotiating with store proprietors.) The primary cost of contracting is not in negotiating the fine details of the contract with the store; the cost of contracting is finding a store that sells the desired product coupled with the desired contract.

An example may help make the issue concrete. Suppose that you desire a house with two fireplaces. You go to a contractor and, although the standard house that the contractor builds has only one fireplace, you and she sit down and begin to negotiate. You draft a building contract that, among its many provisions, has a clause indicating that the home will have two fireplaces. You accept significant price increases and building schedule delays in order to get what you want. You suffer opportunity costs because you have decided to negotiate with this contractor instead of going elsewhere. Both you and the contractor initial the “two fireplace” clause, indicating that you have specifically negotiated this clause. You then go on a world tour to publicize your new book, and the house is built while you are gone. You come back and find that the builder has nearly finished the house but that he has installed only one fireplace. Incensed, you take the issue to a court, with confidence that the court will have the tools to enforce your specifically negotiated provision.

Negotiation for those two fireplaces is not your only option. Instead of laboriously negotiating for the contract term stipulating two fireplaces, suppose you engage in a long and hard search for the home you desire. You search www.realtor.com, read listings in newspapers, hire a realtor to show you around, and engage in countless home visits. You are on a mission to find that perfect house with two fireplaces. Finally, you locate a house on the Web that seems to fit the bill. The listing clearly describes the house as having two fireplaces. Although you are on your book tour, the pictures and

descriptions seem just perfect. You sign, but once you see the house, again, only one fireplace has been installed. Back to court we go.

In the first case, a court would have ample tools provided by legal reasoning and precedent to give the negotiated and initialed clause special force and effect.¹ The court might consider the clause the “heart of the bargain” or might enforce the negotiated provision as against a non-negotiated provision that might seem to contradict it.² The court may even order specific performance under limited circumstances. What is important is that courts have the tools to recognize the costs involved in the negotiation of the provision and have the legal tools to remedy the harm.

But this is not true in the second case. Courts lack the tools to give a “searched for” contract term the same force as a “negotiated” clause. Courts have no lens through which to view the search interest in contract. Without a framework for analyzing this interest, disparities between searched-for and negotiated contractual provisions will persist.³

Why does it matter if courts focus on negotiation costs while parties incur search costs? Courts spend judicial resources interpreting what parties “meant” in contracts where “meaning” was not negotiated (and, overwhelmingly, where the contract was not even read at all). Courts develop remedies giving force to parties’ negotiated preferences where no negotiation occurred at all. The effect is that courts currently inefficiently subsidize negotiation and cause parties to forego otherwise valuable searches.

Thus, the basic proposal of this Article is this: Courts should have interpretive rules and remedies that permit them to respond to search costs in contracting. There is a continuum of legitimate contracting costs, running from negotiation costs through search costs. Courts have the tools to respond to the negotiation end of the continuum; however, they lack tools to respond to the search end. This Article does not, therefore, advocate

1. See, e.g., *Isler v. Tex. Oil & Gas Corp.*, 749 F.2d 22, 23 (10th Cir. 1984) (upholding a bargained-for provision to limit liability, and noting that “[t]he very notion of contract is the consensual formation of relationships with bargained-for duties”); see also *Caribbean Ins. Servs., Inc. v. Am. Bankers Life Assurance Co.*, 715 F.2d 17, 20 (1st Cir. 1983) (enforcing a successfully-bargained-for express right to early trial).

2. See generally *Cumberland Valley Coop. Ass’n v. Martin*, 11 Pa. D. & C.4th 10, 12 (Ct. Com. Pl. Pa. 1991) (ordering judgment against a debtor with the rate of interest agreed to by the parties rather than at the legal interest rate because the former rate was expressly bargained for).

3. As discussed in Part II.D. below, the current literature on contract standardization focuses on the value of boilerplate in saving negotiation and drafting costs and does not focus on search. See generally Michael Klausner, *Corporations, Corporate Law, and Networks of Contracts*, 81 VA. L. REV. 757 (1995); Michael Klausner & Marcel Kahan, *Path Dependence in Corporate Contracting: Increasing Returns, Herd Behavior, and Cognitive Biases*, 74 WASH. U. L.Q. 347 (1996) [hereinafter, Klausner & Kahan, *Path Dependence*]; Michael Klausner & Marcel Kahan, *Standardization and Innovation in Corporate Contracting (or “The Economics of Boilerplate”)*, 83 VA. L. REV. 713 (1997) [hereinafter Klausner & Kahan, *Standardization*].

changing the law. Rather, the goal of this paper is to delineate a value—the value of facilitating searches—that is already present in the law of contract but that courts insufficiently recognize. Once interpretive rules and remedies compensate for search costs of contracting, rather than only negotiation costs, the resolution of contractual disputes will more appropriately mirror actual contracting practice.

The Article proceeds in four Parts. The first discusses search costs generally and the literature of search. The second Part demonstrates that the search interest in contract is present in the common law and applicable statutes but that courts do not cogently recognize or sufficiently value this interest. The third Part examines the implications of a search-centered theory of contract on court remedies and interpretive rules. The fourth Part applies a search-centered theory of contract to make sense of two previously confusing areas of law: electronic contracting and sales law, as set forth in Article 2 of the Uniform Commercial Code.

II. THE THEORY OF SEARCH

Most costs in modern contracting do not involve negotiating an individualized agreement.⁴ Rather, most modern contracting costs involve the searcher finding someone she is willing to contract with in the first place.⁵ For example, if a party wishes to buy a computer, she generally does not engage in a prolonged negotiation of terms with the computer seller. Instead, she searches (often on the Internet) for a list of computer sellers and selects one that offers the mix of contractual terms and technological features that she desires. The buyer spends time on the search, not negotiation.⁶ The next section defines and provides examples of such search costs.

A. A TAXONOMY OF SEARCH

A search cost is a transaction cost. “Transaction cost” is a shotgun term used by the economically minded to describe those costs that may impede or

4. See Steven P. Croley & Jon D. Hanson, *Rescuing the Revolution: The Revived Case for Enterprise Liability*, 91 MICH. L. REV. 683, 770–71 (1993); R. Ted Cruz & Jeffrey J. Hinck, *Not My Brother's Keeper: The Inability of an Informed Minority to Correct for Imperfect Information*, 47 HASTINGS L.J. 635, 641 (1996) (citing WILLIAM M. LANDES & RICHARD A. POSNER, *THE ECONOMIC STRUCTURE OF TORT LAW* 280–82 (1987)) (noting that the greatest contracting cost in purchasing an expensive item is not the cost of drafting an express clause but rather the cost of obtaining information); W. David Slawson, *Standard Form Contracts and Democratic Control of Lawmaking Power*, 84 HARV. L. REV. 529, 529 (1971) (observing the widespread use of standard-form contracts as opposed to negotiated ones).

5. Russell Korobkin, *Bounded Rationality, Standard Form Contracts, and Unconscionability*, 70 U. CHI. L. REV. 1203, 1208 (2003).

6. See Cruz & Hinck, *supra* note 4, at 657–64.

stop a gainful trade from taking place.⁷ Since both negotiation and search costs are transaction costs, they commonly both fall or rise together. But there are also situations in which there is a tradeoff between the two: If a prospective contracting party does not wish to engage in lengthy and costly negotiations with a specific counterparty, her alternative is to search out a party more amenable to the deal she wants. Thus, negotiation costs can be reduced by engaging in less costly searches. Likewise, if finding a counterparty is expensive, but counterparties are open to a wide range of contract terms, negotiation costs could conceivably be lower than search costs.

This cost tradeoff has evolved in favor of exchanging high negotiation costs for low search costs. While search costs have fallen, as a function of networked computer systems,⁸ negotiation costs have either remained the same or have risen as a function of an increased need to specify every contingency when contracting.⁹ As searching becomes faster and easier, the trend of search as a replacement for negotiation will continue. Yet traditional contract doctrines continue to systematically undervalue searches as compared to equivalent negotiations.¹⁰ The result is that some courts are inefficiently subsidizing the negotiation models of contract. If courts enforce terms for which they have indicia of negotiation but do not have the tools to do the same for searched terms, parties will inefficiently avoid cheaper searches because of worries about how the court will react. And, even when courts do recognize the value of the search interest in contract, they use inexact language to articulate their reasoning.¹¹

This section first discusses what searches are. A “search,” like a “negotiation,” is an abstract term that derives meaning from how people use

7. Oliver E. Williamson, *The Economics of Antitrust: Transaction Cost Considerations*, 122 U. PA. L. REV. 1439, 1443 (1974) (“[T]he transaction cost approach attempts to identify a set of market or *transactional factors* which together with a related set of *human factors* explain the circumstances under which complex contracts involving contingent claims will be costly to write, execute, and enforce.”). See generally Oliver E. Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233 (1979).

8. See Avery Wiener Katz, *Is Electronic Contracting Different?* Contract Law in the Information Age 16 (Nov. 23, 2004) (unpublished manuscript, on file with the Iowa Law Review), available at <http://www.columbia.edu/~ak472/papers/Electronic%20Contracting.pdf>. Katz notes:

The electronic setting is also likely to mitigate informational limitations at the point where parties negotiate and enter into contracts. It is easier and cheaper to look into the details of contractual language when one has access to electronic text and can use software search algorithms to discover critical or difficult terms.

Id.

9. This trend is exacerbated by statutes that offer default rules that parties must draft around. See *infra* Part IV.

10. See *infra* Part III.B.

11. See *infra* Part III.B.1.

it.¹² But that does not mean that differentiation between concepts is not useful, even as we admit that complete separation of the concepts is not possible.¹³ And, if we can identify a cost as a search cost, we might help parties that are insufficiently aware of cost-savings that might be available through search rather than negotiation. Similarly, we might help courts with vague intuitions that something is incomplete in current contracts-costs analysis and better describe transaction costs within contracts.

1. Location of Search Costs Within the Larger Universe of Transaction Costs

It may be useful to think of the old conceptual standby, the Venn diagram. Some transaction costs are clearly search costs, some are negotiation costs, and some are not clearly related to search or negotiation at all. For example, one might construe drafting costs as a kind of information cost leading parties to use standardized contracts.¹⁴ Clearly drafted or previously vetted language does indeed lower search costs when reused—the drafting and vetting reduces uncertainty about what the terms mean or what courts will do with them, while increasing certainty that the parties have found the deal they sought.¹⁵ Standardized contract language may also lower negotiation costs because the drafter is able to signal, by the use of standardized language, that she does not seek any unfair advantage.¹⁶ Thus, drafting costs are part of both search and negotiation costs.

Searches can be both positive and negative. Positive searches are searches for parties that offer goods or land with desired features, services, or contracts with desired terms.¹⁷ Negative searches are searches to ensure the absence of a feature or contractual term. So, for example, a prospective purchaser might search for a house with a rose garden in the back—a positive search. Having found such a house, the party might check the roof to make sure that it does not leak—a negative search. Or, from the contract perspective, a prospective purchaser might make a positive search for a given price term; conversely, she might make a negative search to ensure the contract does not have an invidious provision that she wishes to avoid. Often courts and scholars characterize a negative search as being more expensive

12. See SAUL A. KRIPKE, WITTGENSTEIN ON RULES AND PRIVATE LANGUAGE: AN ELEMENTARY EXPOSITION 55–113 (1982). Kripke notes, “There can be no such thing as meaning anything by any word.” *Id.* at 55.

13. See *id.* at 55–62 (discussing the meaning of language).

14. Klausner & Kahan, *Standardization*, *supra* note 3, at 720.

15. See *id.* (noting the costs of creating new terms).

16. See *id.* at 729 (noting that using standard terms informs performance expectations).

17. See, e.g., Jeffrey M. Rosenfeld, *Spiders and Crawlers and Bots, Oh My: The Economic Efficiency and Public Policy of Online Contracts That Restrict Data Collection*, 2002 STAN. TECH. L. REV. 3, 6; Alan Schwartz & Louis L. Wilde, *Imperfect Information in Markets for Contract Terms: The Examples of Warranties and Security Interests*, 69 VA. L. REV. 1387, 1400–01 (1983).

than a positive search.¹⁸ However, both positive and negative searches bear significantly on contracting behavior, as discussed further below.

2. Unilateral and Bilateral Costs

Searches often are conceived of as unilateral and negotiations as bilateral. A party who searches for a prospective contractual term—for example, a party who window shops, or searches the Internet, or reads a contract closely for terms—is thought to be acting unilaterally. Negotiation, however, is seen as a bilateral process: The law mythologizes contract-making as being about give and take and information exchange.¹⁹ The intuition that courts ought not to attribute unilaterally incurred costs to the opposing party is the root of some objections to including search costs in the contract calculus.

Yet this unilateral–bilateral distinction rapidly disintegrates when closely examined. Searches are for contract terms or items offered by other parties. One party offers, another party searches for offers. Whether Party A searches for a prospective counterparty that already offers what she wants, or negotiates with that counterparty, it still takes two to contract.²⁰ While individuals often view negotiation costs as being caused by the recalcitrance of the other side, the same is true of search costs. Imagine a party who hides a clause within a contract. That behavior not only raises search costs for the prospective counterparty, who now must search the contract to make sure everything is as it appears, but it also raises the contracting costs for everyone else who contracts in that particular area. This insight becomes particularly important to the discussion of searches using computers,²¹ where the expected success of a search is as much a function of the “search optimization” of the offer as of the resources expended by the searcher.²²

18. Cf., Frank Adams, Jr., *Why Brown v. Board of Education and Affirmative Action Can Save Historically Black Colleges and Universities*, 47 ALA. L. REV. 481, 487 n.30 (1996) (“[T]oday’s decision places upon the State the ordinarily unsustainable burden of proving the negative proposition that it is not responsible for extant racial disparity in enrollment.” (quoting *United States v. Fordice*, 505 U.S. 717, 753 (1992) (Scalia, J., concurring in part and dissenting in part) (emphasis omitted))); James A. Washburn, Note, *Beyond Brown: Evaluating Equality in Higher Education*, 43 DUKE L.J. 1115, 1149 n.163 (1994) (quoting the same passage from *Fordice* as quoted in Adams, *supra*).

19. See K.N. Llewellyn, *Our Case-Law of Contract: Offer and Acceptance, II*, 48 YALE L.J. 779, 796–97 (1939).

20. See *Hertzog v. Hertzog*, 29 Pa. 465, 467 (1857) (“All true contracts grow out of the intentions of the parties to transactions, and are dictated only by their mutual and accordant wills.”).

21. See *infra* Part IV.A.

22. David S. Evans & Michael Noel, *Defining Antitrust Markets When Firms Operate Two-Sided Platforms*, 2005 COLUM. BUS. L. REV. 667, 689. Evans and Noel explain:

At a given size, expanding the number of customers on the platform can create congestion that increases search and transaction costs. It may be possible to reduce congestion by increasing the size of the physical platform, but that in turn may

Likewise, the bilateral reading of negotiation costs is misleading. Negotiations are often one-sided.²³ In fact, normal contracting behavior is so one-sided that we have stretched concepts of consent beyond any reasonable meaning of the term.²⁴ Further, we routinely compensate parties for unilateral costs (reliance, for example), as long as they fall within the negotiation framework.²⁵ Thus, it is difficult to maintain the idea that a party undertakes search costs unilaterally, while negotiation costs are the result of both parties' common endeavor, and, thus, ought to be somehow favored.

Finally, while there is a significant difference between bilateral and unilateral costs, that difference has nothing to do with negotiation or search and everything to do with evidence. Unilateral costs are easier to invent, whereas evidence of bilateral costs is likely to be available to both sides.²⁶ Yet this evidentiary problem does not translate into a reason to disfavor unilateral costs systematically, especially where a party incurred the costs in reliance on the other party's representations.²⁷ For example, in the hypothetical that introduced this Article, the searcher relied upon the representation by the seller that the home had two fireplaces. The searcher incurred opportunity costs—the lost opportunity to buy elsewhere—because of the inaccuracy in the material that she searched. This is not an unfamiliar

increase search costs. . . . [T]o optimize a customer's search for partners, [two-sided platforms] may find that it is best to limit the size of the platform and prescreen the customers on both sides to increase the probability of a match.

Id. (citation omitted).

23. See Daniel D. Barnhizer, *Inequality of Bargaining Power*, 76 U. COLO. L. REV. 139, 162 (2005) ("In any competitive system involving actors of varying levels of skill, with different needs, desires and goals, every scarce resource—including bargaining power—will be subject to unequal distributions."). See generally Melvin A. Eisenberg, *The Bargain Principle and Its Limits*, 95 HARV. L. REV. 741, 754–85 (1982) (showing how traditional contract-law assumptions about bargaining are inappropriate when bargaining is too one-sided).

24. Barnhizer, *supra* note 23, at 152 ("As a practical matter, poor individuals often do lack bargaining power—the power to obtain a preferred outcome in a transaction—in many situations and are often systematically deprived of the ability to offer meaningful consent to proffered contracts.").

25. See generally L.L. Fuller & William R. Perdue, Jr., *The Reliance Interest in Contract Damages: 1*, 46 YALE L.J. 52 (1936); L.L. Fuller & William R. Perdue, Jr., *The Reliance Interest in Contract Damages: 2*, 46 YALE L.J. 373 (1936).

26. See Robert E. Scott & George G. Triantis, *Anticipating Litigation in Contract Design*, 115 YALE L.J. 814, 826 (2006) ("In the adversarial litigation system, the court chooses between the self-interested evidence presented by the parties. The parties present only the evidence that is in their respective self-interest, and the parties also bear most of the cost of their respective evidence production.").

27. RESTATEMENT (SECOND) OF CONTRACTS § 90 (1981) ("A promise which the promisor should reasonably expect to induce action or forbearance on the part of the promisee or a third person and which does induce such action or forbearance is binding if injustice can be avoided only by enforcement of the promise.").

phenomenon elsewhere in the law. For example, unilateral reliance on a donative promise yields promissory estoppel.²⁸

Thus, instead of separating search costs from transaction costs based on a false unilateral–bilateral distinction, it is better to understand the moral hazard of relying on evidence that may only be in one party's hands. We resolve this sort of problem procedurally. Discovery, for example, is our tool to cause the parties to exchange information that only one side has so that the other side may challenge and evaluate it.²⁹ Additionally, triers of fact are routinely asked to evaluate self-serving arguments asserted by one side based on evidence only available to that side. A discount, not a disqualification, is the appropriate response to the evidentiary challenges posed by unilateral costs.

3. Objects of Search: Features, Contractual Terms, and Counterparties

Searches also differ with respect to the objectives of each search; often we search for items with particular qualities. I would like a house with a view of the river, and so that is what I search for.³⁰ The search for items with particular qualities is what we are most used to in terms of Internet searches. When a searcher uses eBay, she enters the common name of the thing (e.g., a Ducati motorcycle or a Louis XIV chair), and then begins the more laborious task of searching for the specific item she most desires by looking at pictures, price terms, etc.³¹

This leads to the second objective of a search—contract terms. Sometimes parties search for contracts that have specific terms. By far, the most common search is for a contract that offers the lowest price term.³² Other searches are for warranties.³³ Contract-term searches can be both positive searches (searches for terms that parties want within the contract, to make sure those terms are really there) and negative searches (searches to make sure there is not some hidden clause that will cause grief later).³⁴

Determining whether parties are searching for contract terms or property features may seem confusing. Searchers do both: In terms of search

28. *Id.*

29. See 5 CHARLES ALAN WRIGHT & ARTHUR R. MILLER, FEDERAL PRACTICE AND PROCEDURE § 1202, at 98 (3d ed. 2004) (“The provisions for discovery are so flexible and the provisions for pretrial procedure and summary judgment so effective, that attempted surprise in federal practice is aborted very easily, synthetic issues detected, and the gravamen of the dispute brought frankly into the open for the inspection of the court.”).

30. The unique characteristics of real property cause the legal regimes governing contracts for land to be particularly concerned with search costs. See *infra* Part II.B.

31. See, e.g., eBay, <http://www.eBay.com> (last visited Mar. 15, 2007).

32. See, e.g., Pricewatch, <http://www.pricewatch.com> (last visited Mar. 15, 2007).

33. A search of “TV under warranty” in eBay.com returns results not only for television sets still under warranty but also for free-floating contractual warranties available to extend the purchaser’s current television warranty.

34. See *supra* Part II.A.1 (discussing positive and negative searches).

costs, there is a continuum between the two—not a sharp break.³⁵ Where the range of product features is narrow (purchases of fungible items like nails, for example) parties are likely to search contract terms (the variance in nails will be in price or manufacturer reputation). Where the range of features is wide and competition narrows the contractual range of prices and warranties (for example, television sets), parties are likely to search product features.

Finally, prospective contracting parties search for a trustworthy counterparty.³⁶ For example, eBay's reputation system provides a database of transactions that allows potential contracting parties to learn whether prior contracting parties deem a buyer or seller trustworthy.³⁷ Within the negotiation model of contract, the counterparty is accorded a strange status. Although the counterparty is not a negotiated term, usually it is not permissible to transfer one's duties under the contract to a third party without the express consent of the counterparty.³⁸ The reputation of the counterparty may affect a prospective party's decision immensely, and yet it is not considered a negotiated contract term. Restrictions on the alienation of contract rights and responsibilities only make sense in light of the search costs involved in learning about a prospective counterparty.

B. THE ORIGINS OF SEARCH THEORY IN PROPERTY LAW

Much of the literature on search costs has been in the field of property law.³⁹ The literature describes systems with high search costs and low frustration costs as "contract" models.⁴⁰ On the other hand, the literature terms systems with low search costs and (potentially) high frustration costs "property" models of law.⁴¹

35. Thanks to Leandra Lederman for the discussions out of which this idea grew.

36. See G. Richard Shell, *Opportunism and Trust in the Negotiation of Commercial Contracts: Toward a New Cause of Action*, 44 VAND. L. REV. 221, 225 n.14 (1991) ("[T]rust encourages coordinative behavior by reducing the danger of [loss]' from high-risk bargaining behavior, and 'even low-risk forms require some degree of trust[.]'" (quoting DEAN G. PRUITT, NEGOTIATION BEHAVIOR 92, 100 (1981))); see also John M. Hawes, Kenneth E. Mast & John E. Swan, *Trust Earning Perceptions of Sellers and Buyers*, 9 J. PERS. SELLING & SALES MGMT. 1, 1 (1989) ("Trust is the binding force in most productive buyer/seller relationships.").

37. See eBay Feedback Forum, <http://pages.ebay.com/services/forum/feedback.html> (last visited Mar. 15, 2007).

38. See generally Joshua G. Graubart, *Unintended Consequences: State Merger Statutes and Nonassignable Licenses*, 2003 DUKE L. & TECH. REV. 25 (discussing non-assignment clauses).

39. See generally, e.g., Thomas W. Merrill & Henry E. Smith, *Optimal Standardization in the Law of Property: The Numerus Clausus Principle*, 110 YALE L.J. 1 (2000).

40. See *id.* at 55 ("[C]ontract rights themselves can be tailored just as a house can be custom-built, but the way of owning it is highly simplified to reduce information costs to third parties.").

41. See *id.* at 38–42 (discussing the economically optimal standardization of property forms as a function of frustration costs and information costs).

Frustration cost is the cost of parties' inability to get precisely the deal that they desired.⁴² One can think of frustration costs as the inefficiencies occasioned by fitting the square peg of the optimal deal between the parties into the round hole that the law provides for crafting that deal. For example, if Party A desired to sell, and Party B to buy a parcel of land for use as a factory site in an area zoned residential, the law will frustrate the deal and the parties will not consummate a gainful trade. As in this example, frustration costs are often imposed where externalities to other parties (here, the residents living near the factory) would be higher than the costs of frustration.⁴³

If parties were able to enter into any deal they desired, they would optimize the net satisfaction with the deal. However, there is a tradeoff. If parties can make any deal they desire, there is a cost for third parties. For example, if Party A sells Party B a microwave, and the sales contract disclaims damages from bodily injury resulting from defective manufacture of the microwave, then future purchasers now have higher search costs when attempting to buy a microwave. They must now determine whether a proposed sale includes the hidden cost of a damages disclaimer.

This sort of analysis has proven influential in property law, where courts have deemed contractual restraints on property that do not "touch and concern" the land unenforceable because they raise search costs for third parties who may seek to buy land.⁴⁴ However, these bright-line labels for contract and property models are misleading. A property model is one that recognizes the costs of idiosyncrasies to subsequent searching parties.⁴⁵ A contract model is one that minimizes frustration costs by permitting parties to individualize transactions.⁴⁶ Of course, one can have contract models governing property (for example, a legal regime that would permit an idiosyncratic use restriction to run with the land). As this Article discusses, it must also be possible to have a property model of contract law.

42. See *id.* at 35 (discussing the interaction between frustration costs and property rights).

43. See *id.* at 26–27 (discussing measurement-cost externalities).

44. See RESTATEMENT (THIRD) OF PROP.: SERVITUDES §§ 3.1–3.2 (2000) (eliminating the formal requirement that servitudes touch and concern the land, but introducing a public-policy requirement that tracks the same goals); see also Merrill & Smith, *supra* note 39, at 26 ("In modern terminology, the Lord Chancellor thought that permitting interests [in covenants that do not run with the land] to be established as property rights would create unacceptable information costs to third parties.").

45. Merrill & Smith, *supra* note 39, at 26–27 ("The need for standardization in property law stems from an externality involving measurement costs: Parties who create new property rights will not take into account the full magnitude of the measurement costs they impose on strangers to the title.").

46. See *id.* at 55 ("[C]ontract rights themselves can be tailored just as a house can be custom-built, but the way of owning it is highly simplified to reduce information costs to third parties.").

This Article therefore makes the following distinction throughout: The “property model” is distinguishable from “property law” in that the model describes a system with low search costs and high frustration costs whereas “property law” is that amalgam of doctrines and ideas that (among other things) is taught in the first year of law school and that secures the flow of high value land to high value users.⁴⁷ Similarly, the “contract model” is distinct from “contract law” in that the model reflects high search and low frustration costs, whereas the area of contract law is that amalgam of doctrines that generally permits parties to capitalize on pre-commitments and make gainful trades according to mutually acceptable terms.⁴⁸ Either model might apply to either area of law.⁴⁹

In the broad area of property law, concepts of title searches and limitations on idiosyncratic contractual-use restrictions are well-developed.⁵⁰ Thus, property theory has been the natural breeding ground for significant legal academic literature on the relationship between search costs and negotiation costs, resulting in the property model of law.⁵¹ If the number of legal “boxes” into which a property transaction can be placed is limited, that limitation makes property easy to search.⁵² This is the concept of the *numerus clausus*: Constrained legal forms may serve a function beyond job security for lawyers and frustration of the intentions of parties.⁵³ If, for example, property law permitted parties to encumber property with idiosyncratic use restrictions, then subsequent parties seeking to buy property of that type would suffer higher search costs.⁵⁴

The classic example of search costs in property is thus: Party A and Party B enter into an agreement about Party A’s bicycle such that Party B may use the bicycle on Monday mornings. Because this agreement is a property agreement, it is enforceable against anyone to whom Party A might sell the bicycle.⁵⁵ At this point, Parties A and B have made a mutually enriching

47. See *id.* at 38 (“There is a spectrum of possible approaches to property rights, ranging from total freedom of customization on the one hand to complete regimentation on the other.”).

48. Cf. *id.* at 57 (“[C]ontract should be (and is) less standardized than is property law.”).

49. See *id.* at 38.

50. See, e.g., Matthew Baker et al., *Optimal Title Search*, 31 J. LEGAL STUD. 139, 139–47 (2002).

51. See *id.* For a discussion of such costs with regard to contracting, see Klausner & Kahan, *Path Dependence*, *supra* note 3, at 353–59; Margaret Jane Radin, *Online Standardization and the Integration of Text and Machine*, 70 FORDHAM L. REV. 1125, 1139 (2002).

52. See Merrill & Smith, *supra* note 39, at 3–4.

53. See *id.* (defining *numerus clausus* as “the principle that property rights must track a limited number of standard forms”).

54. *Id.* at 26–27 (“[B]y allowing even one person to create an idiosyncratic property right, the information processing costs of all persons who have existing or potential interests in this type of property go up.”).

55. *Id.* at 27 (“Why might the law restrict the freedom of A and B to create such an unusual property right? . . . Given the awareness that someone has created a Monday-only right,

transaction. Party B has paid Party A for the use of the bicycle every Monday morning. If Party A prefers the money to the use, and Party B prefers the use to the money, they enrich society. Why, then, would we not enforce such a Monday-morning property right?

One answer is that subsequent parties seeking to purchase bicycles bear the cost of the idiosyncratic property right. Subsequent parties must undertake searches to determine whether the property they wish to purchase indeed is subject to such a use right. Imagine that Party C now wishes to buy a bicycle. Party C is probably not trying to purchase the precise bicycle that was the subject of the transaction between Parties A and B. Even if we stipulate that this is a different bicycle entirely, and that Party C knows that, it still does not solve Party C's problem. Party C must engage in a systematic negative search; Party C must make sure that the use restriction does not apply to any bicycle she wishes to purchase.

There is nothing about the above example, however, that relies on property law in order to be true. Private ordering can raise public search costs. Indeed, the property analysis relies on *contract law* (an idiosyncratic use agreement) to create the private ordering that raises the costs of public search.⁵⁶ Thus, these costs clearly apply in the law of contract as well as the law of property. The next section, therefore, discusses the application of search theory directly to contract law without the property analysis.

C. THE INSIGHTS OF SEARCH THEORY APPLY TO MODERN CONTRACTING

Idiosyncratic language in a contractual agreement can raise search costs for entire industries. For example, in the purchase of the microwave described above, the idiosyncratic contractual disclaimer of damage causes search costs to rise for subsequent prospective microwave purchasers.⁵⁷ If the new, strange disclaimer of damages is enforced, then parties who wish to be protected in the event of a microwave explosion must now search their contracts for a waiver of damages whenever they buy a microwave.

anyone else buying a watch must now also investigate whether any particular watch does not include Monday rights.”).

56. *Id.* at 42.

57. Indeed, the Uniform Commercial Code (“UCC”) limits such disclaimers. U.C.C. §§ 2-316(4), -318, -719(3) (2003). By not permitting disclaimers of bodily injury, the UCC removes the need to search all contracts for such disclaimers. The more common—and incorrect—explanation of the UCC’s limitation on disclaimers of physical damage is as mere paternalism: The law should protect consumers from certain contract terms. Yet this rings false, since parties can shift price terms (microwaves will cost more) where they cannot shift risk.

As an aside, although revisions to Article 2 of the UCC were approved in 2003, this Article will cite primarily to the pre-revision Article 2 because the new revisions have not been adopted by any states. Revised Article 2, which was published in 2005, will be cited to the 2005 Edition of the UCC, while the pre-revision Article 2 will be cited to the 2003 Edition of the UCC. Furthermore, revisions to Article 1 of the UCC were approved in 2001 and such revisions have been adopted by the majority of the states. Thus, this Article will cite the revised Article 1 to the 2005 Edition of the UCC.

Idiosyncratic contract language imposes negative search externalities on non-parties to the contract, often either subsequent purchasers of a good or other contracting parties working in the same industry.

The hook traditionally connecting the terms of property arrangements to the larger community for purposes of search costs has been the fact that property arrangements are enforced against third parties.⁵⁸ Therefore, property theory states that third parties must make costly searches for idiosyncratic arrangements precisely because they are bound.⁵⁹ An example of the cost of two-party arrangements in the property context would be racially restrictive covenants that run with real property.⁶⁰ If such covenants were enforced, subsequent purchasers who wish to avoid such odious arrangements must search the title for them.

Thus, one considerable challenge to a search theory of contract is how the terms of a contract that binds only signatory parties can raise the costs of a third party not bound by that particular contract. It is at this point that this Article deviates from property theory. Property theorists have been unduly concerned with the ability of property arrangements to *bind* third parties instead of focusing more directly on whether idiosyncratic property arrangements raise search costs for third parties.⁶¹

In a standard property arrangement, searchers are not particularly concerned with the particular piece of property first encumbered by the idiosyncratic use right. Instead, parties are concerned that whatever property they might purchase would be encumbered by such a right. In the bicycle example, above, the idiosyncratic use right in that particular bicycle is not the source of concern to third parties. The chance that they will buy that particular bicycle (and be bound by that precise use right) is low.⁶² However, after a court enforces an idiosyncratic use right in one bicycle, subsequent

58. See Merrill & Smith, *supra* note 39, at 54–55 (“[P]roperty rights are in rem—they serve not only to bind successors in interest but the whole world.”); see also Thomas W. Merrill & Henry E. Smith, *The Property/Contract Interface*, 101 COLUM. L. REV. 773, 778 (2001) [hereinafter Merrill & Smith, *Property/Contract*]. Merrill and Smith noted:

The in personam/in rem distinction is not limited to what are conventionally regarded as contract and property rights, but applies far more generally. . . . Nevertheless, the paradigmatic contract right adopts the in personam structure of rights and duties, and the paradigmatic property right corresponds to the in rem structure of rights and duties.

Id. at 778.

59. Merrill & Smith, *supra* note 39, at 27.

60. See generally Shelley Ross Saxer, *Shelley v. Kraemer’s Fiftieth Anniversary: “A Time for Keeping, a Time for Throwing Away”?*, 47 U. KAN. L. REV. 61 (1998) (describing racially restrictive covenants and discussing the implication of *Shelley* on private rights).

61. See generally Richard A. Epstein, *Covenants and Constitutions*, 73 CORNELL L. REV. 906 (1998) (discussing how the rules of recordation help facilitate transactions that bind three or more persons).

62. Merrill & Smith, *supra* note 39, at 27.

bicycle purchasers have to worry about whether a similar right will be attached to any other bicycle that they wish to purchase.⁶³

This analysis certainly rings true in contract law. For example, suppose a court gives effect to an idiosyncratic liquidated damages provision, or a limitation of warranty, or a waiver of rights provision, in a contract. Other, unrelated contracting parties will certainly not worry that the terms of that contract will bind them because they were not signatories.⁶⁴ However, parties who contract after the court's decision will have to make sure that such a provision does not appear in their own contracts with other parties.⁶⁵ Their search costs rise because they must be sure that undesirable but (now) enforceable provisions are not part of their own agreements.⁶⁶

Another example, this time from the services industry: Suppose you enter a restaurant and intend to ask the waiter to bring you a soft drink. The common, standard treatment in the United States is that subsequent soft drinks are free. But there are idiosyncratic exceptions: Some restaurants charge customers on a per-drink basis or might charge a low cost for a refill. Even though one restaurant's arrangement does not bind any other restaurant and one customer's decision also does not bind any third parties, the existence of the idiosyncratic per-drink arrangement raises search costs. Thus, you must either ask the waiter whether the restaurant will charge you for refills, or (as is commonly the case) you must proceed blindly and will be surprised—and not a little inconvenienced—to find out after the fact that the restaurant charges for refills.

Courts also play a role in lowering contracting costs by enforcing standardized contract language. Similarly, the language that courts enforce becomes the standard in contracts. The effect is the same—the parties reap the benefit of lower contract costs. It is unsurprising that when parties use, and courts enforce, idiosyncratic contract provisions, courts raise search costs for subsequent contracting parties. As noted above, court-tested boilerplate language lowers drafting costs precisely because the language has

63. *Id.* (“[B]y allowing even one person to create an idiosyncratic property right, the information processing costs of all persons who have existing or potential interests in this type of property go up.”).

64. Other commentators have noted this phenomenon, although from the perspective of weighing costs of permissive rules in negotiations, rather than from the perspective of searching for new contracts:

[I]f X and Y can alter a permissive rule, a court might be called upon to decide whether they have in fact done so. The court's determination might increase contracting costs in a similar type of contract subsequently entered into by A and B, since they will want to eliminate any uncertainty about whether they have retained the permissive rule to govern their contract.

CLAYTON P. GILLETTE & STEVEN D. WALT, *SALES LAW: DOMESTIC AND INTERNATIONAL* 138–39 (2d ed. 2002).

65. *Id.* at 138–39.

66. *Id.* at 139.

been tested by courts.⁶⁷ Even if the language goes unnoticed by the court, that lack of remarkability is an indication that the language is successful. Boring is safe when it comes to contract language. If a given court finds the language unremarkable, it is increasingly likely that subsequent courts will do the same.⁶⁸ Similarly, a novel interpretation of banal contractual language is decreasingly likely as courts review more of the same documents.⁶⁹ This may be a function of simple institutional fatigue (judges and clerks can only focus on so many issues), and oft-repeated contractual phrases may have the edges worn off by mere repetition to judges.

Litigants often advance another argument against novel interpretations of standardized contractual language, which is inexplicable under contract theory up until now. Parties often advise courts that if they adopt a novel interpretation of standardized language, then it will disrupt many other routine commercial transactions. For example, courts recognize that industries, not just individual contracting parties, have an interest in consistent term construction.⁷⁰ This argument highlights the hidden presence of the role of search within contract law. If courts truly subscribed to the negotiation model of contract, they would refuse to consider the effects of the courts' constructions of private arrangements on the broader industry. Each contract would be construed as an island.

This is not the case. Courts consider the impact of their interpretations of contract language on the broader community of meaning. For example, courts consider custom and trade usage under both the Uniform Commercial Code ("UCC") and the U.N. Convention on Contracts for the International Sale of Goods ("CISG"). Both the UCC and the CISG apply an objective—not subjective—standard of custom and trade usage.⁷¹ Thus, a

67. See Klausner & Kahan, *Standardization*, *supra* note 3, at 718; see also Robert A. Hillman & Jeffrey J. Rachlinski, *Standard-Form Contracting in the Electronic Age*, 77 N.Y.U. L. REV. 429, 439 (2002) (arguing that uniform terms are efficient and reduce bargaining costs).

68. See Hillman & Rachlinski, *supra* note 67, at 439.

69. See *id.*

70. See *Metric Constructors, Inc. v. NASA*, 169 F.3d 747, 753 (Fed. Cir. 1999) (finding that, where a space-station construction contract called for "relamping" of project prior to completion, a contractor only was required to replace nonworking lamps because replacement of all lamps was inconsistent with the trade meaning of "relamping"); *Travelers Indem. Co. v. Scor Reinsurance Co.*, 62 F.3d 74, 78 (2d Cir. 1995) (holding that extrinsic evidence, in the form of industry custom and practice, was admissible to interpret ambiguous notice-of-occurrence clauses in reinsurance policies issued by a reinsurer to a primary insurer).

71. Convention on Contracts for the International Sale of Goods art. 9(2), Apr. 11, 1980, S. TREATY DOC. NO. 98-9, 1489 U.N.T.S. 3, 61, available at <http://www.uncitral.org/pdf/english/texts/sales/cisg/CISG.pdf> [hereinafter CISG]; U.C.C. § 1-303(b), (c) (2005). Article 9(2) of the CISG provides:

The parties are considered, unless otherwise agreed, to have impliedly made applicable to their contract or its formation a usage of which the parties knew or ought to have known and which in international trade is widely known to, and

novice who enters a new industry is bound not by his understanding of the terms, but by the objective meaning of the terms in the broad industry.⁷² If courts truly were interested in the subjective meaning of terms as between parties, they would construe contract terms in accordance with the actual demonstrated meanings of terms as used by the specific parties to a contract. They do not do this, however, and instead construe the terms of the parties' contract as consistent with meanings understood by the industry as a whole, thus validating the community's interest in keeping search costs low.⁷³

In sum, property arrangements are not alone in affecting a larger search community.⁷⁴ Idiosyncratic contract language, if enforced, also raises search costs and affects parties who are not signatories to the contract in which the idiosyncratic language is used. In Wittgensteinian terms, the applicable community of meaning includes not only the particular parties to a contract, but includes the universe of contracting parties who rely on the standardization function of courts as to a given industry.⁷⁵ As before, if the meeting of the minds between two parties as to idiosyncratic contract terms (or idiosyncratic interpretations of a previously settled and standardized term) is given effect, the broader contracting community suffers higher search costs.

The insights of search theory seem to apply to contracting behavior; the next section, therefore, examines the gap in the literature that has caused this phenomenon to go unrecognized.

D. THE EXISTING LITERATURE HAS NOT CLOSELY EXAMINED A SEARCH-CENTERED THEORY OF CONTRACT

The existing literature has focused heavily on the benefits of contract standardization to contract drafters (usually the sellers of products) in terms of saved drafting or litigation costs⁷⁶ or increased ability to use hidden contract language to extract money from consumers through obfuscation or cartels.⁷⁷ But standardization does not solely benefit contract drafters:

regularly observed by, parties to contracts of the type involved in the particular trade concerned.

CISG, *supra*, art. 9(2).

72. CISG, *supra* note 71, art. 9(2); U.C.C. § 1-303(b), (c).

73. See GILLETTE & WALT, *supra* note 64, at 110–12.

74. Cf. Merrill & Smith, *supra* note 39, at 54–56.

75. See generally KRIPKE, *supra* note 12 (analyzing the primary concepts behind Wittgenstein's ideas on philosophy of language and mathematics).

76. See generally Melvin Aron Eisenberg, *The Limits of Cognition and the Limits of Contract*, 47 STAN. L. REV. 211 (1995); Klausner & Kahan, *Standardization*, *supra* note 3; Russell Korobkin, *Bounded Rationality, Standard Form Contracts, and Unconscionability*, 70 U. CHI. L. REV. 1203 (2003).

77. See generally David Gilo & Ariel Porat, *The Hidden Roles of Boilerplate and Standard-Form Contracts: Strategic Imposition of Transaction Costs, Segmentation of Consumers, and Anticompetitive Effects*, 104 MICH. L. REV. 983 (2006).

Prospective purchasers (or contract “readers”) benefit from information standardization too.

For example, travelers on the interstate highway system may well choose to go to a franchise restaurant not only because the restaurants routinely benefit from economies of scale that allow them to pass along lower costs to the consumer but also because the travelers know what to expect. The franchise system creates information economies for potential diners, not just production benefits for the franchisee. The same economies exist in contract: Parties often prefer the standard deal to an idiosyncratic one.

Some literature discusses how consumers deal with complex contracts by freeriding on a minority of consumers who presumably read them.⁷⁸ Even this literature only explains how consumers cope with the supposed immense information burdens of standardized contracts. The literature does not discuss whether standardization actually *lowers* information costs in contracts. Thus, a theory of contractual search inevitably extends beyond the current discussions of contract standardization in the literature. The following sections examine the questions raised by prior literature in more depth and discuss how it differs from a search theory, focusing on the benefits of information standardization to the searching party.

1. The Boilerplate Literature Focuses on Drafting and Negotiation Costs Instead of Search

The literature on search costs in contracting has, to date, focused on the value of standardized contractual language in lowering negotiation costs between expert negotiators.⁷⁹ For example, one approach analyzed why parties often used abstruse boilerplate language.⁸⁰ This analysis had three parts: (1) it determined that parties used boilerplate as a way of reusing contracting language and saving drafting costs;⁸¹ (2) it noted that boilerplate might be a signal to the other party that neither party was seeking a secret advantage couched in novel contract terms;⁸² and (3) it discussed the value of boilerplate as language that courts had vetted to some degree.⁸³ But this analysis is still essentially a two-party model focused on negotiation costs. Parties may well use boilerplate as a way of signaling benign intentions toward their counterparties. If this approach is correct, boilerplate lowers the negotiation costs of contracting.

This Article addresses search costs in contracting from a different angle. The boilerplate approach does not examine the importance of contract-

78. See generally Jody S. Kraus, *Legal Design and the Evolution of Commercial Norms*, 26 J. LEGAL STUD. 377 (1997).

79. Klausner & Kahan, *Standardization*, *supra* note 3, at 723–24.

80. *Id.* at 719–20.

81. *Id.* at 720–21.

82. *Id.* at 723.

83. *Id.* at 722.

language standardization in the initial search—what the traditional law of contract considers to be part of the pre-contractual moment. While the boilerplate approach offers reasons why standardized language is valuable to the offeror, it does not supply a theory by which to understand why consumers rationally might prefer to accept standardized terms.

2. The Economic Analysis of Electronic Contracting Raises Still-Open Questions of Search

Another line of literature examines whether electronic contracting is somehow different.⁸⁴ This literature asks, for example, whether the Internet might lower search costs by permitting search engines to parse contracts quickly.⁸⁵ “Burying” provisions would be less effective if search engines could sniff out the buried terms.⁸⁶ Search costs of long contracts would be lowered, under this vision, purely by the power of computers to “read” a contract quickly.⁸⁷

This Article recognizes a serious intellectual debt to the electronic-contracting literature. However, the electronic-contracting analysis considers technological search as one feature in the electronic-contracting landscape and does not bear down on broader issues of search costs in contracting.⁸⁸ This Article seeks to focus on issues of search across contracting contexts, including electronic contracting, the common law of contract, and the UCC.

Second, the prior literature on electronic contracting leaves questions for future work. For example, consider the idea that search costs will fall because computers will help parties to read contracts more quickly.⁸⁹ A computer program certainly could compare a contract to prior versions of the same (or a contract to a standardized and commonly accepted version of the same). But a search engine can only recognize what it has seen already and would not identify novel contract terms. This program would not be

84. For an excellent treatment of this subject, see generally Katz, *supra* note 8 (analyzing the effect of online contracting on common law doctrines from the economic perspective).

85. *Id.* at 17 (“It is easier and cheaper to look into the details of contractual language when one has access to electronic text and can use software search algorithms to discover critical or difficult terms.”).

86. *Id.* at 16–20.

87. As Katz explains:

An offeree in possession of a good search engine, for instance, should be able to check a contract or multiple contracts for unfavorable terms much more easily than in the traditional setting, so long as the terms follow a standard format. Such formats such as XML (extended markup language, an extension of the HTML language) will provide such a standard so long as they are widely adopted.

Id. at 30.

88. For example, one major element of online contracting discussed by the literature has been pseudonymity, whereby parties incorrectly believe they can engage in fraud due to physical distance and difficulties in tracing real identities online.

89. See Katz, *supra* note 8, at 16, 29.

able to prioritize the importance of departures. For example, it would treat a misplaced comma with the same importance as a disclaimed waiver provision, thus requiring a human to make a judgment call anyway, and ultimately not lowering search costs.

It is also not immediately clear that computers will lower the costs of reading contracts because a computer will accept false positives. Anyone who has misspelled “from” as “form” and had a spellchecker fail to catch the distinction will know what I mean—the presence of spellcheckers has significantly lowered humans’ capacity to spell but has not significantly reduced the need for proofreading.

Finally, although a computer could scan a contract, it would be quite difficult for it to report to the human. While a computer could point out differences between one contract and another, the computer could not condense the contract. It is not able to rephrase the content in a shortened and clear manner that would allow a human to comprehend the entire contract.

In building on the current literature, this Article seeks to develop a new response to the problem of computer-read contracts. The major impact of technology on contract terminology and reading is not the speed at which computers can read contracts alone, but rather is found in the steps that humans take to “search optimize” their contracts. This inquiry into search optimization helps us to understand that modern searches are essentially bilateral activities: The searcher indeed spends resources searching, but the party searched for also spends resources on being searchable.

3. The Online-Standardization Literature Does Not Cover Search

The debate over standardization and Internet contracting is marked by especially strong opinions. Some commentators argue that courts apply the regime of unconscionability and the practice of invalidating contracts of adhesion in precisely the same fashion online and offline.⁹⁰ Commentators assert that the common law has long had a theory of “blanket consent” that governed “money now, terms later” contracts, and that online contracting does not appreciably alter this theory.⁹¹

This approach has a certain practical appeal; it is, however, incomplete. Courts do use language developed in the course of offline dealings to validate online contracts. To do otherwise would cause courts to appear to abandon precedent. But court decisions governing online end-user license agreements have reached far beyond a theory of blanket consent in the online environment. For example, in one recent case, a court found that

90. Hillman & Rachlinski, *supra* note 67, at 439.

91. *Id.* at 438–39.

mere accessing of a computer program was consent sufficient to require the consumer to give up critical fair-use rights.⁹²

Another common approach to standardized contract language is the argument that standardization vitiates negotiated consent.⁹³ For example, recent statutes have lowered the contractual standard of negotiated consent to passive assent when the party engages in online contracting.⁹⁴ Commentators have questioned whether consent has a continued place in electronic contracting, given the assent norm and standardized texts that are presented as take-it-or-leave-it bargains.⁹⁵ This is essentially an online intensification of the idea that standardization vitiates consent.

A theory of search allows departure from the model of standardization as a threat to consent. Instead, a search-oriented view of contract permits us to preserve the useful concept of consent while enforcing standardized contracts. Under a theory of search, the meaningful option to search for another contractual counterparty preserves consent. Many deals are both standardized and take-it-or-leave-it, but the two attributes are legally and intellectually distinct. Within a framework of search, one can see that standardization in bargains could in fact aid choice and competition by speeding up searches for alternatives.⁹⁶ In a competitive market, the searcher can take someone else's deal.

Thus, none of the prior approaches have presented a search-focused analysis. They have remarked on the usefulness of boilerplate in reducing drafting or negotiation costs, have discussed whether electronic contracts are different, or have worried that online standardized contracts vitiate consent. There is no systematic analysis of the role that search costs and searches play across contracting behavior. The next section will begin that analysis by examining the roles (both positive and negative) that search already plays in the common law of contract.

92. *Davidson & Assocs. v. Jung*, 422 F.3d 630, 640–41 (8th Cir. 2005).

93. See, e.g., Margaret J. Radin, *Humans, Computers, and Binding Commitment*, 75 *IND. L.J.* 1125, 1149–53 (2000) (arguing that convenience must not drive out consent in contracts in the new digital era).

94. *Id.* at 1142–43.

95. *Id.* at 1155–60.

96. For example, the court in *ProCD, Inc. v. Zeidenberg* explained:

Terms of use are no less a part of “the product” than are the size of the database and the speed with which the software compiles listings. Competition among vendors, not judicial revision of a package’s contents, is how consumers are protected in a market economy. ProCD has rivals, which may elect to compete by offering superior software, monthly updates, improved terms of use, lower price, or a better compromise among these elements.

ProCD, Inc. v. Zeidenberg, 86 F.3d 1447, 1453 (7th Cir. 1996) (citations omitted).

III. A SEARCH-CENTERED THEORY OF CONTRACT

Thus far, this Article has sought to establish that search theory indeed applies to contracts and that the literature to date has not examined this phenomenon. This section, therefore, discusses how the common law currently deals with issues of search. Part A will discuss several prominent common law doctrines that form the core of the negotiation theory of contract. These doctrines inefficiently subsidize the negotiation model, or under-recognize the search model, causing parties to invest inefficiently in negotiation. Part B will discuss other common law rules that have permitted courts, *sub silencio*, to recognize some search interests in contract.

A. TRADITIONAL CONTRACT DOCTRINE CONTINUES TO FOCUS ON NEGOTIATION COSTS

This section assesses several core doctrines of the negotiation-centric view of contract law; that is, the notions of the “meeting of the minds,” of negotiated consent, and of the benefit of the bargain. Some contracts and areas of law are more negotiation-oriented and others are more search-oriented. Parties tend to negotiate capital purchases such as equipment or real estate development: no amount of search can create the precise deal that the buyer desires, so some degree of customization must occur. Conversely, searches are far more useful for transactions in standardized goods that vary in limited and searchable aspects. The following sections do not, therefore, argue that the core negotiation doctrines are never useful. Rather, when courts apply negotiation-centered doctrines to searched contracts, they produce inefficient investment in negotiation or inefficient avoidance of searches.

1. The “Meeting of the Minds”

A “meeting of the minds” is legal slang for the state that exists between two parties intending to create a legally binding commitment subject to relatively unambiguous terms.⁹⁷ When a meeting of the minds occurs, courts enforce the terms against the parties despite later changes in fact.⁹⁸ When parties have carefully negotiated the terms of a contract, courts enforce those terms with special force.⁹⁹

97. See RESTATEMENT (SECOND) OF CONTRACTS § 22 (1981) (discussing the doctrine of mutual assent). See generally *Ammons v. Cordova Floors, Inc.*, 904 So. 2d 185 (Miss. Ct. App. 2005); *Klamen v. Genuine Parts Co.*, 848 S.W.2d 38 (Mo. Ct. App. 1993).

98. Cf. *Wiljamaa v. Bd. of Educ. of Flint*, 213 N.W.2d 830, 831 (Mich. Ct. App. 1973) (requiring a board of education to reinstate a teacher after it changed the effective date of her resignation without her knowledge because there was no meeting of the minds).

99. Cf. *Del Serrone Contracting Corp. v. Avon Twp.*, 257 N.W.2d 667, 668 (Mich. Ct. App. 1977) (holding that a rubber-stamped endorsement did not establish the requisite meeting of the minds).

But when courts apply the doctrine to contracts that fall on the search end of the spectrum, it produces inefficient investments by inserting the trappings of negotiation into non-negotiated contracts. For example, consider the practice of initialing a contractual term or placing it in bold or capital letters to indicate that a perusing consumer must have noted the term and, therefore, the term is part of the meeting of the minds. If a party initials a provision in a contract showing that the parties gave it special negotiated force, the court is more likely to deem that provision effective.¹⁰⁰ This is true even where there might be some other legal doctrine (unconscionability or a standardized term that might seem to conflict with the negotiated term) that would normally cause a court to discount the provision. Other routine methods of drawing attention to a provision (to make it seem negotiated) are: using all capitals, providing directional statements such as "Important: Read Paragraph 3," using bolded lettering, or any other attention-getting device.¹⁰¹

This model works as long as serious, individuated negotiation was indeed part of the process. But in the context of consumer purchases, parties use these negotiation-highlighting devices more for judges than for consumers. There is no serious expectation that drawing the consumer's attention to the contract term will lead to a discussion about whether the consumer wants that specific term. Thus, the investments in negotiation-marking language are inefficient, and, to a degree, openly deceptive. These instruments merely encourage courts to continue applying a negotiation paradigm to a non-negotiated contract system. This leads to a discussion of consent to non-negotiated contracts, continued in the next section.

2. Negotiated Consent

Currently, the legal concept of consent means negotiated consent.¹⁰² Courts have conflated consent with negotiation, but a concept of consent born out of a model of negotiation cannot survive modern contracting—especially Internet contracting. As search costs fall, a greater number of contracting parties turn to searchable networks to make purchases. So, by relying more on search, buyers rely less on negotiation. This causes a problem for the traditional conception of negotiated consent.

100. See Charles L. Knapp, *Taking Contracts Private: The Quiet Revolution in Contract Law*, 71 *FORDHAM L. REV.* 761, 794–95 (2002) (“[K]nowledgeable drafters can probably engineer consent How many times, dear reader, have you—prompted by a selling agent—signed or initialed a space or a box on a standard form, just below language which recites ‘I have read and understood the above provisions’”).

101. This discussion is usually found in state-court treatments of procedural unconscionability. See, e.g., *Muhammad v. County Bank of Rehoboth Beach, Del.*, 912 A.2d 88, 96–103 (N.J. 2006).

102. See *Isler v. Tex. Oil & Gas Corp.*, 749 F.2d 22, 23 (10th Cir. 1984) (“The very notion of contract is the consensual formation of relationships with bargained-for duties.”).

As a result, the concept of contractual consent has come under serious pressure, especially in regard to online transactions. For example, when a person searches for a television set online and clicks on a button marked "buy now," to what serious degree has that person perused and digested the legal documents hidden somewhere else on the website that comprise the written contract between the parties, much less negotiated the result? Not at all.

This old framework, where consent is only valid within the context of negotiation, has led us to systematically devalue consent.¹⁰³ Society must allow Internet transactions; it would be too inefficient not to do so. Reasoning backward, then, courts must find negotiated consent within these transactions.¹⁰⁴ If courts can only find consent as a function of negotiation, then courts must find that online, "buy now" contracts somehow are negotiated by the parties.¹⁰⁵

As things stand, therefore, courts and statutes have stretched the legal fiction of negotiated consent beyond the breaking point of reason or experience. For example, the Uniform Computer Information Transactions Act redefines "consent" with the term "assent," thereby bringing a range of passive behaviors into the realm of negotiated consent.¹⁰⁶ The key to solving the problem of the growing and invidious legal fiction of negotiated consent is to divorce negotiation from consent. A search theory of contract separates the two quite neatly. Searches are as valid an expression of consent as negotiations. If, following a search, a party accepts a deal, that deal demonstrates as much consent as the traditional negotiated one. The fiction of choice as applied to negotiation is not a fiction when applied to search.¹⁰⁷ The entire idea of enforcing non-negotiated contracts under some legal fiction of informed consent is that we assume parties are free to search for other counterparties that offer better terms if the parties do not like the counterparties' terms. Thus, theories of search undergird our entire

103. Consider, for example, the devaluation of consent implicit in the progressive judicial enforcement of adhesion contracts, form contracts, shrink-wrap licenses, click-wrap licenses, and potentially browse-wrap licenses. See, e.g., *Register.com, Inc. v. Verio, Inc.*, 356 F.3d 393, 428–30 (2d Cir. 2004) (discussing shrink-wrap, click-wrap, and browse-wrap licenses); *Specht v. Netscape Commc'ns Corp.*, 150 F. Supp. 2d 585, 592–95 (S.D.N.Y. 2001) (same); *Pollstar v. Gigmania Ltd.*, 170 F. Supp. 2d 974, 981 (E.D. Cal. 2000) ("[A] browse wrap license is part of the web site and the user assents to the contract when the user visits the web site. No reported cases have ruled on the enforceability of a browse wrap license.").

104. *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1449 (7th Cir. 1996); *Specht*, 150 F. Supp. 2d at 593–95.

105. Courts have found these contracts negotiated. See *Specht*, 150 F. Supp. 2d at 593–94 ("The few courts that have had occasion to consider click-wrap contracts have held them to be valid and enforceable.").

106. See UNIF. COMPUTER INFO. TRANSACTIONS ACT § 105(d)(4), 7 U.L.A. 242 (2002).

107. See generally Barnhizer, *supra* note 23; Daniel D. Barnhizer, *Propertization Metaphors for Bargaining Power and Control of the Self in the Information Age*, 54 CLEV. ST. L. REV. 69, 95–101 (2006).

fictionalized account of negotiated contract. It is time for courts to begin using the language of search costs explicitly, rather than continuing to discuss fictional negotiations.¹⁰⁸

How does a party withhold consent within a search paradigm? The searcher refuses to do business with Counterparty A and looks for a new counterparty. Thus, where the negotiation model of contract searches for consent within a transaction, where it can only be found by torturing the definition of consent, a search model of contract finds consent quite easily by examining the range of possible transactions searched and determining which was selected by the searching party.

3. The “Benefit of the Bargain”

The negotiation model of contract affects not only courts’ interpretive rules but also the remedies they apply. A traditional remedial goal of black letter contract law is to give parties the benefit of their bargain. Therefore, remedies are based on the perceived benefit that each party sought from the bargain.¹⁰⁹ If courts are good at crafting remedies for negotiation costs but bad at crafting remedies for search costs, parties will invest inefficiently in negotiation and avoid search.

Focusing on the bargained-for elements of a contract under-recognizes the role of nonbargained elements. When nonbargained elements were not bargained for because they were the objects of a search, the difficulty grows. For example, suppose a party searches in the “memorabilia” search category on eBay to find a signed baseball.¹¹⁰ The party enters into a standard contract with the seller, which includes a clause that the baseball is sold “as is.” Later, the purchaser finds that the signature is not genuine but is just for show. The question is whether a court should consider the “memorabilia” search-category placement as part of the bargain. Should a court offer any remedy for the fact that the seller placed the baseball in the “memorabilia” category, even though the seller offered no assurance of authenticity during their negotiations? If courts lack the tools to do so, parties will stop trusting in cheap searches and will turn to more expensive negotiations. In this case, eBay users would cease trusting the results of their eBay category searches and would invest inefficiently in negotiations by requiring redundant written assurances that what the buyer searched for as memorabilia is in fact

108. Of course, actual negotiations often have taken place in contracting. When the court deals with that portion of the negotiation-search continuum, an account of negotiation is perfectly appropriate. Problems arise when courts fictionalize negotiation by applying it to the search end of the continuum.

109. *See, e.g.*, U.C.C. § 2-716 (2003) (providing remedy of specific performance where damages calculated according to the benefit of the bargain model would be unjust).

110. *See Gentry v. eBay, Inc.*, 121 Cal. Rptr. 2d 703, 707 (Ca. Ct. App. 2002) (posing this hypothetical).

memorabilia. The redundant negotiation is inefficient, but necessary insofar as courts fail to recognize searches in remedial schemes.

Overall, the negotiation-centered doctrines at the core of common law contract poorly serve both courts attempting to parse contracts that fall at the search end of the spectrum and parties who have searched for contracts rather than negotiated for them. However, other doctrines in the common law do validate searches, although often the issue is not expressly discussed. The next section, therefore, begins a discussion of how the common law, at times, implicitly has validated the search interest in contract, even while lacking the tools to do so explicitly.

*B. SEARCH PLAYS A CENTRAL, BUT UNDER-RECOGNIZED, ROLE IN THE
COMMON LAW OF CONTRACT*

The core negotiation doctrines neither validate the growing use of searches to replace negotiations nor the attempts to reduce search costs. Other common law rules, however, have long paid covert attention to search costs. This section will explore some of the ways that the common law has recognized search interests or some rules that, whatever their original inspiration, do in fact limit or validate search costs.

1. Common Law Interpretive Rules Validating Search

While many common law doctrines nominally intend to give effect to the individualized will of the parties, they in fact limit the ability of the parties to seek enforcement of idiosyncratic understandings of standardized and settled contractual terms. Several common law doctrines notably limit the cost of individuated contracting to the broader contracting community.

a. Construction of Terms According to Their Plain Meanings Lowers Search Costs

The first fundamental act of contract interpretation is the construction of the meaning of the terms themselves.¹¹¹ The “plain meaning” canon contributes directly to lowering search costs. A court committed to enforcing the simple meaning of the contractual language might pride itself on enforcing the will of the two parties who drafted the contract. Yet even the simple act of trying to construe what two parties meant when they drafted a contract is complicated by the fact that when two parties use words they are participating in a broader, community conversation as to what those words mean.¹¹²

Parties negotiate meaning within the context of a community. Therefore, what courts actually do when attempting to ascertain the

111. See RESTATEMENT (SECOND) OF CONTRACTS § 201 (1981).

112. See generally *Pac. Gas & Elec. Co. v. G. W. Thomas Drayage & Rigging Co.*, 442 P.2d 641, 644 (Cal. 1968) (containing Judge Traynor’s famous rationalization of the parol evidence rule based on the contextual nature of language).

meaning of a term is to decide what the term would mean to a member of the relevant community of meaning.¹¹³ If a judge wants to know what a “grinder” is, she is well advised to ask whether the contracting parties make submarine sandwiches or run meatpacking plants. Thus, even when a court is attempting to make sense of the words of a contract, the court must draw from the broader community of meaning.

This is especially relevant to the search costs of members of that community. The court does not merely draw from the pool of a given community of meaning—it contributes to that pool as well. If the court construes a term in a way that voids an industry standard, for example, that construction imposes significant costs on the industry. Thus, when courts seek to determine the plain meaning of a term, they are not seeking to determine how the parties intended to use it but rather what the term means to the broader community of meaning—the industry.¹¹⁴ This approach lowers search costs for all other parties in that industry because they do not have to worry about idiosyncratic interpretations of industry-wide terms.¹¹⁵

b. The Parol Evidence Rule Lowers Search Costs by Limiting Evidence in Support of Extrinsic and Idiosyncratic Meanings of Terms

Similarly, the parol evidence rule masquerades as a rule about good evidence; it is, however, also a rule that reduces search costs.¹¹⁶ Let us imagine that a court has before it accurate and verifiable extrinsic information about what the parties meant by a term of the contract. It is odd

113. See *Hotchkiss v. Nat'l City Bank of N.Y.*, 200 F. 287, 293 (S.D.N.Y. 1911) (“A contract has, strictly speaking, nothing to do with the personal, or individual, intent of the parties. A contract is an obligation attached by the mere force of law to certain acts of the parties, usually words, which ordinarily accompany and represent a known intent.”); see also *C. H. Pope & Co. v. Bibb Mfg. Co.*, 290 F. 586, 587 (2d Cir. 1923) (quoting *Hotchkiss*); SAMUEL WILLISTON, WILLISTON ON CONTRACTS §§ 612–613 (Walter H.E. Jaeger ed., 1961).

114. See, e.g., *Ragus Co. v. City of Chicago*, 628 N.E.2d 999, 1001–02 (Ill. App. Ct. 1993) (upholding utilization of trade usage to construe the meaning of a contract inconsistently with its clear language, but consistently with industry standards).

115. See Klausner, *supra* note 3, at 776 (“A judicial opinion that interprets one corporation’s contract term in effect embeds that interpretation in the contracts of all firms that use the same term.”).

116. See RESTATEMENT (SECOND) OF CONTRACTS § 213 (1981). The Restatement provides:

(1) A binding integrated agreement discharges prior agreements to the extent that it is inconsistent with them. (2) A binding completely integrated agreement discharges prior agreements to the extent that they are within its scope. (3) An integrated agreement that is not binding or that is voidable and avoided does not discharge a prior agreement. But an integrated agreement, even though not binding, may be effective to render inoperative a term which would have been part of the agreement if it had not been integrated.

to imagine that such a court would wish to exclude accurate evidence of the intention of the parties just because it is extrinsic to the contract.

Yet courts do exclude such evidence. An example may help. In two cases, the argument is made that the term “commercial grinder” means a meat grinder that has the capacity to grind meat up to a very fine texture. In both cases, the purchaser of the grinder was unsatisfied with the grinder because it only ground to a fine texture. In Case A, however, the purchaser presents the court with an e-mail stating: “It is critical that the grinder you send to us be able to grind to a ‘very fine’ texture,” to which the reply is: “Understood.” However, the court excludes the e-mails because the contract is fully integrated.

In Case B, the parties present the court with the same facts; however, in this case, the purchaser seeks to introduce evidence that industry custom is that all commercial grinders can grind to a very fine texture. The court would consider this argument as industry custom and practice that does not directly contradict the terms of the contract. Thus, while accurate extrinsic evidence of the individualized intentions of the parties is commonly excluded from the court’s interpretive calculus, evidence of industry custom and practice commonly is included, either under the “plain meaning” or “custom and practice” canons of construction.

Only a search theory of contract can make sense of this pattern. The parol evidence rule is likely to exclude extrinsic evidence that imposes high search costs on third parties (that is, idiosyncratic understandings not set forth in the contract) in the same industry.¹¹⁷ And courts are likely to permit extrinsic evidence that *lowers* search costs (custom and practice, industry standards) under the pretense that courts are merely examining such evidence to determine what the parties meant.¹¹⁸

117. See, e.g., *Burger King Corp. v. Rudzewicz*, 471 U.S. 462, 467 n.6 (1985) (“Although the franchisees contended that Burger King officials had given them oral assurances concerning assignment, the District Court found that pursuant to the parol evidence rule any such assurances ‘even if they had been made and were misleading were joined and merged’ into the final agreement.” (citation omitted)); see also *St. Johns N. F. Shipping Corp. v. S. A. Companhia Geral Commercial do Rio de Janeiro*, 263 U.S. 119, 120 (1923) (summarizing petitioner’s argument and discussing, in a positive way, earlier cases where “testimony was offered to modify the custom by an oral contract, and [two state supreme courts] refused to admit such evidence on the ground of the parol evidence rule”).

118. See *Porto Rico Sugar Co. v. Lorenzo*, 222 U.S. 481, 482 (1912) (finding that parol evidence of the local grinding season based on industry practice properly was admitted to determine the time of performance, which was not specified in a contract to grind sugarcane).

*c. The Four-Corners and Contract-Integration Doctrines
Also Lower Search Costs*

Similarly, the four-corners and contract-integration doctrines also serve the function of lowering information costs.¹¹⁹ The rationale offered for these rules traditionally has been “information forcing.” That is, if the parties did not bargain to include the term within the four corners of the document or did not include the term in an integrated agreement (depending on how the doctrine plays out), then the parties do not get the benefit of the term. These doctrines presumably force parties to include terms they want.

Yet additional idiosyncratic terms are costly to search. How, then, can a rule that encourages parties to clog up contracts with such terms be search-friendly? Perhaps one answer lies in turning the question around and examining what terms the doctrines exclude. These doctrines exclude idiosyncratic terms that are related to the subject matter—that is, individualized arrangements that deviate from baseline assumptions about how parties usually conduct business of a given sort.¹²⁰ For example, if a party sells his house but later desires to introduce evidence in litigation that he did not intend to sell a house fixture (say, a porch swing) with the house, a court will bar him from so doing if he did not include the provision in the contract. The baseline assumption is that fixtures are sold with the house, and if the seller wants to complicate the parties’ contracting by stating otherwise, he had better do so explicitly.¹²¹

The important part of the analysis is the determination by the court of what sorts of provisions parties expect to be in what sorts of transactions. Violating the expectations for a transaction of that type leads to exclusion of the term. These expectations are understood most cogently as commonly held conceptions about what bundle of negotiations a given transaction will include. Note that these expectations technically are no more part of the

119. *See, e.g.,* *Barron Bancshares, Inc. v. United States*, 366 F.3d 1360, 1375 (Fed. Cir. 2004) (holding that an integration clause conclusively establishes that the integration is total and prohibits the use of external evidence to add to or modify the terms of a written agreement).

120. *UAW-GM Human Res. Ctr. v. KSL Recreation Corp.*, 579 N.W.2d 411, 421 n.14 (Mich. Ct. App. 1998). When concluding that parol evidence was not admissible to contradict the integration clause, the court noted:

To consider parol evidence in interpreting a written contract that includes an integration clause is to accord the integration clause no meaning. An integration clause is not merely an additional “factor” to be weighed in light of the affidavits and other extrinsic evidence to determine the parties’ understandings . . . [It] is an internal rule of construction that any previous or contemporaneous agreements are nullified.

Id.

121. *See, e.g.,* *Westdale Co. v. Gietzen*, 185 N.W.2d 596, 598 (Mich. Ct. App. 1971) (“A written agreement which is complete on its face, unambiguous in its terms, intended by the parties to be a complete integration of their agreement, and signed by the parties to be bound cannot be varied or changed without consent or subsequent agreement.”).

written contract than the idiosyncratic term that the four-corners rule rejected. Yet courts do not discard both commonly held assumptions and the idiosyncratic terms. Rather, courts discard the idiosyncratic terms as conflicting with the commonly held assumptions about what terms ought to be part of a contract. The four-corners rule is, therefore, an exclusion of idiosyncratic contract terms absent a clear statement and, therefore, a search-cost-lowering function.

2. Search-Oriented Remedies in Contract Doctrine

Similarly, some contract remedies are already influenced by search costs, even though that influence has gone undernoticed. This section will discuss two ideas. The first is that the basic common law presumption in favor of remedies at law presumes low search costs. The second is an explanation of the struggle between reliance and expectation damages for contracts from a search-oriented perspective.

a. Limiting Contract Remedies to Money Damages Presumes Low Search Costs

One of the truisms of common law contract is that when a remedy is available at law, equitable relief is presumptively not available. The exception proves the rule: If I contract with Pablo Picasso to draw my portrait, then it is possible that I may receive specific performance because it would be too costly for me to find an alternative artist combining Picasso's style and reputation.

Alternatively, where the performance of a contract is related to fungible goods, a party is usually limited to an action at law.¹²² Fungibility is a proxy for low search costs. If the goods are fungible, it is not difficult to find another party willing to supply the same goods at a price close to the price that the parties originally negotiated. Plus, courts can address shortfalls caused by having to purchase fungible goods on the spot market by adjusting damages. Thus, concepts of search seem to drive the selection of remedies at least as much as the concept of fairness or equity drives the selection.

b. Compensating Parties for Reliance Indicates a Sensitivity to Search Costs

Reliance can be measured as a function of rising search costs. Imagine a television manufacturer that wants a stable contractual relationship with a parts supplier for its televisions. In the initial search phase, any supplier will do, as long as its parts perform the required function. So, the manufacturer cheaply locates a supplier and enters into a contract with that supplier to provide the parts.

122. *Id.* See generally Edward Yorio, *In Defense of Money Damages for Breach of Contract*, 82 COLUM. L. REV. 1365 (1982) (arguing that monetary damages are preferable to specific performance).

In reliance on the contract, the manufacturer then retools its factory and alters its design schematics to include the part that the supplier provides. If the supplier breaches the contract, the manufacturer suffers much higher search costs because it relied on the contract. The manufacturer now must locate a supplier that supplies not just any part that serves the function, but a part that fits the other television pieces that the manufacturer machined to interoperate with the original supplier's parts. Thus, parties can recover some search costs under the rubric of the reliance interest in contract.

To summarize, the common law inefficiently subsidizes negotiation by applying negotiation-specific doctrines to the entire spectrum of contracts, including searched-for terms. On the other hand, some common law contract doctrines covertly have worked to lower search costs for contracting parties or implicitly weigh search costs in deciding on a remedy after breach. The next Part examines what the common law might look like if courts explicitly included search interests in the contractual calculus.

IV. THE IMPLICATIONS OF ADOPTING A SEARCH THEORY OF CONTRACT

The adoption of a search-oriented theory of contract would change very little on the surface of the law. Courts would continue to use traditional doctrines but would perhaps gain a renewed understanding of their own role in interpreting contract language. Remedies would have the same names, but courts might tailor them to the cost of the parties in searching for a prospective counterparty or term, rather than tailoring them to the cost of the parties' negotiations. Thus, a search theory of contract would clarify the role of rules already in place, as well as give courts guidance on how to achieve their current goals.

A. INTERPRETIVE RULES AND REMEDIES WOULD CHANGE

This Article does not suggest a radical change in the law. As previously discussed, search-friendly rules and remedies are not incompatible with common law doctrine. Search-oriented contracts are only one end of the spectrum: The traditional doctrines provide good rules for negotiated agreements. That said, courts that view contracts through the lens of search are likely to retune their interpretive rules and remedies. While the above sections have identified areas of the common law that already show, *sub silencio*, sensitivity to search in the common law of contract, the following sections discuss some ways the lens of search might alter the perceptions of courts dealing with contractual disputes.

1. Interpretive Rules: Examples

As discussed above, interpretive rules might well change if courts view contracts through the lens of search. One valuable contribution that search theory could make to contract interpretation is a coherent framework for

separating out standardized contracts that seek to obscure contractual terms from standardized contracts that enhance the ability of parties to search their terms.

For example, a court might choose to give extra weight to a term that not only is standardized by industry standards but also is standardized for searchability. One could imagine a series of “check-boxes” in a contract, each check standing for a standardized, and therefore easily searchable, contractual term. Parties could search a range of contracts by checking the boxes that represent the terms they desired. The search engine could then search through the set of contracts on offer to find the terms the searcher desired. In such a case, the court could have strong confidence in its obligation to enforce the term. The search-optimized contract term could be the new initialed or bolded contract term meme for modernized contracting. Just as an initialed contract term might be a negotiation marker, the search-optimized contract term would be a search marker.

Another interpretive rule that courts might reimagine under the search lens of contracting would be *contra proferendum*, the canon of construing a contract term against the party that wrote it.¹²³ The question of who *drafted* a searched contract term is odd: The term became part of the contract not just because one party offered it, but also because another party searched for it. In that case, the authorship of the searching party is at least as important to the contract as is the drafting by the offering party. Of course, these interpretive shifts do not supersede courts’ determinations of reasonableness. If Party A puts out a term that looks like a standardized term, but has a non-standard qualification such that it would deceive Party B, a searcher using regular terms, courts can intervene. Nonetheless, the basic principle remains: A “meeting of the searches” is a bilateral contract-authoring process in a way that the negotiation model always aspired to be but never achieved. When one party searches for a term (or offers a term for search) and enters into a contract based on that search, it might prove beneficial to a court to hold that party to that term with especial firmness.

As a third example, courts fill in missing terms of contracts after hearing evidence of industry custom and practice or trade usage.¹²⁴ Yet courts have not been able to provide a satisfactory explanation for why they do so. If the term or its definition were that important to the regular

123. See, e.g., Katz, *supra* note 8, at 16 (noting that computer searching of contract provisions “should lower the relative disadvantage faced by less informed parties, in the long run reducing the need for protective interpretive doctrines such as *contra proferendum* (construing the contract against the drafter), as well as information-forcing doctrines such as unilateral mistake”).

124. See, e.g., Sun Oil Trading Co. of Pa. v. M/T “Mercedes Maria,” C.A. No. 81-1033, -1083, -4021, -4862, 1982 U.S. Dist. LEXIS 17866, at *3 (E.D. Penn. Dec. 29, 1982) (determining that where international fuel shortages had caused parties to begin challenging the amount of wastage of oil during shipment by tanker, an implied contract term permitting 0.5% waste could be read to supplement oil contracts of carriage).

functioning of the contract, the parties would have expressly included it.¹²⁵ Moreover, in a negotiation model, parties will, in the future, negotiate the previously unaddressed provision. Contracting costs will rise. Of course, there is no real going-forward benefit for the actual parties before the court—they did not include the provision, and so one side or the other will get a windfall. This is not an attractive proposition to a court.

A search-oriented analysis makes sense of the practice of supplementing contract terms in light of industry custom. While it makes very little sense from a negotiation standpoint to include by implication a clause that the parties simply chose not to include, from a search standpoint the enforcement of customary terms lowers the costs for third parties engaged in searches of contracts and searches for prospective counterparties. Thus, in this case, the lens of search permits courts to ascertain more clearly when they ought to permit custom and practice evidence to supplement or define contract terms.

These are just several examples—there are more. What is important and valuable about these examples is that they use the lens of search not to overturn the basic principles of the interpretive rules, but rather to permit the interpretive rule to fulfill its original common-sense function without recourse to legal fictions.

2. Remedies: Examples

Similarly, the lens of search might cause courts to reevaluate contractual remedies in certain circumstances. Courts undercompensate search costs because they often consider such costs to be precontractual. Common law courts disfavor precontractual liability.¹²⁶ Under current doctrine, it is quite possible that a court seeking to compensate a wronged party for its contracting costs would simply recompense that party for negotiation costs and not at all for the precontractual search. If the bad acts in the precontractual moment led to a failure of the contracting process, it is quite possible that the harmed party would have no contract cause of action at all.

125. Again, a standard law-and-economics analysis would state that the term was not included because the costs of specification were greater than the surplus created by settling the negotiated term. This is satisfying in that parties cannot specify absolutely everything, and sometimes the facts put pressure on little-considered clauses. Beyond that, the analysis is flawed—if an industry-standard term is actually industry standard such that the meaning is lexical, or the parties are to imply the term in the contract, then the term omission is clearly an act of contractual significance. If facts conspire to make a clause leap into the spotlight, it becomes a drafting issue, not an ongoing issue of contract law. Parties will simply contract around the problem in the future.

126. Compare the tradition of permitting civil actions for bad acts in the precontractual phase (*culpa in contrahendo*). See generally Nadia E. Nedzel, *A Comparative Study of Good Faith, Fair Dealing, and Precontractual Liability*, 12 TUL. EUR. & CIV. L.F. 97, 112–13 (1997) (discussing *culpa in contrahendo* in a civil-law context).

A search-oriented approach to contract might enable courts to compensate parties for precontractual bad acts, especially bad information that led a party to undertake opportunity costs and stop its search for other contractual counterparties. Indeed, when given a pretext, courts recognize such costs under the doctrine of good faith. For example, a court considering an attempt by a supplier of steel to raise prices to its buyer mid-contract determined that the buyer was not able to find another supplier of steel in time to meet its production schedules.¹²⁷ Thus, the court decided that the supplier acted in bad faith in raising the price and that the contract modification was unenforceable.¹²⁸ The court's application of the good-faith requirement was illogical: Good faith is not a requirement during contract negotiation.¹²⁹ However, search costs for replacements had risen because of lock-in effects caused by reliance on the supply contract.¹³⁰ The court therefore employed the doctrine of good faith as a quasi-*culpa in contrahendo* doctrine to respond to these shifting costs.

The view of the remedy of specific performance also might change if courts explicitly recognize the role of search in contracting behavior. As discussed above, the current rule at common law is that courts disfavor specific performance when recovery at law is available. This view presumes low search costs, such that courts might use money to make the harmed party whole. If search costs are high, courts adopting a search-sensitive view of contract might permit specific performance in more scenarios. For example, if costly permits and clearances are necessary in order to import certain goods, it may be impossible to compensate a party for the loss of a contract because no other counterparty could obtain the clearances in a timely manner. Courts then might order the goods imported and later let the parties go their separate ways. Indeed, in the international arena, this is already the rule: Specific performance is the default remedy in cross-border transactions under the Convention on Contracts for the International Sale of Goods.¹³¹ It is not implausible that common law courts seeking to compensate parties for extensive search costs might adopt similar rules.

127. See *Roth Steel Prods. v. Sharon Steel Corp.*, 705 F.2d 134, 147–48 (6th Cir. 1983).

128. *Id.* at 148.

129. See, e.g., GILLETTE & WALT, *supra* note 64, at 91 (“Strictly, good faith under the U.C.C. is limited to good faith in the performance and enforcement of a contract. Good faith in modification goes to the formation of the modified contract, not its performance or enforcement.”).

130. See *Roth Steel*, 705 F.2d at 148.

131. Avery W. Katz, *Remedies for Breach of Contract Under the CISG*, 25 INT’L REV. L. & ECON. 378, 384 (2006).

B. THE FOCUS OF CONSUMER PROTECTION THROUGH
CONTRACT DOCTRINE MAY CHANGE

One strong trend in contract law is the view that standardized contracts, or take-it-or-leave-it deals, make it hard for consumers to get information about the deals to which they nominally are agreeing. Only in the law of contract would one posit that standardization raises information costs. In every other field and discipline, the information benefits of standardization are commonly accepted.¹³²

Standardized contracts became vilified as anti-consumer because of attempts to protect consumers through the law of contract rather than through separate consumer-protection statutes. Even if one does want to protect consumers, controlling contract terms by legislative fiat is a poor way of reaching those distributional goals. Where law dictates contract terms, price terms make up the difference. Thus, distributionally, most attempts to route consumer protection through contract legislation or judicial construction tend to fail.¹³³

Despite this failure, nearly every discussion of standardized contracting discusses the following paradigmatic hypothetical: A party presents a consumer with a long and confusing standardized contract that includes provisions the consumer neither expected nor desired.¹³⁴ Confronted with the prospect of spending a long period of time examining a document that governs eventualities the consumer hopes will not materialize, the consumer opts not to read the document.¹³⁵ There have been two traditional solutions: (1) a legislature dictates the contractual term, or (2) the court determines whether the consumer has consented to the transaction.¹³⁶

Courts often hold standardized contracts to a different standard because they deem that consumers have not consented to the deal.¹³⁷ But,

132. For example, no one would claim that the standardization of a three-pronged plug for an outlet somehow was a bad thing for consumers. The standardization of the plug and the wall socket lowers information costs, making the consumer's search for a plug easier. It is worth asking why the same has not held true, to date, for standardized contracts.

133. Katz, *supra* note 8, at 11.

134. See Todd D. Rakoff, *Contracts of Adhesion: An Essay in Reconstruction*, 96 HARV. L. REV. 1174, 1176-79 (1983) (developing a model of modern contract-of-adhesion law).

135. See Knapp, *supra* note 100, at 794-95 (noting that parties do not read adhesion contracts, even where parties use information-forcing mechanisms like term initialing); Rakoff, *supra* note 134, at 1179 ("[T]he adhering party is in practice unlikely to have read the standard terms before signing the document and is unlikely to have understood them if he has read them.").

136. See *ProCD v. Zeidenberg*, 86 F.3d 1447, 1450-51 (7th Cir. 1996) (holding consumer's failure to return item after opening it sufficient to establish consent to contract); U.C.C. § 2-719(3) (2003) (providing that attempts to limit personal injuries are "prima facie unconscionable").

137. See Rakoff, *supra* note 134, at 1174-75 (arguing that contracts of adhesion receive different treatment under the common law).

when a consumer agrees to a standardized contract despite limited information, the consumer is often perfectly aware that information is limited. The consumer has made an informed guess as to the costs and benefits of inquiring further. Parties routinely offer consent based on limited information. When consumers trust a doctor or a financial expert, or mail a letter, or start a car without intimate knowledge of the workings of the internal combustion engine, they work with very good knowledge about their relative lack of knowledge. Consent is not vitiated merely because it is premised on the consenting parties' accurate self-assessment of limited knowledge.¹³⁸

A theory of search improves the lot of contracting consumers without obfuscating the benefits of searchable contracts. Parties seeking to contract need to ascertain that there are no unpleasant surprises within the contract. One of the ways they can do that is by perusing the document; this is the approach to which even the "pro-standardization" theories ascribe. There is never any negative characterization of the decision of the consumer to read the document, even among the proponents of standard-form contracts as purveyors of efficient allocation of risk among the contracting parties.

Yet at least *some* theory of contract ought to be incensed when consumers are required to read contracts. The cost of doing so is considerable, especially as a proportion of the expected gain to be realized out of the trade. Let us say a consumer values his time at ten dollars per hour. If a contractual relationship takes an hour to fully comprehend, a consumer faced with even a pro-standardization regime will prefer not to undertake the trade if he is required to read the contract. Only a search-centered theory of contract recognizes the reader's loss of time and effort.

V. APPLICATION OF SEARCH-CENTERED REGIMES IN CONTRACT: ELECTRONIC CONTRACTING AND THE UCC

Thus far, this Article has examined how the law focuses on a negotiation model of contract, even in areas (such as standardized "money now, terms later" contracts) where the idea of negotiation seems particularly inapposite. This Article also has examined closely the common law of contract and noticed that, although courts do not expressly consider search costs, many common law doctrines do act to lower search costs. Next, this Article demonstrated how a search-centered theory of contract might influence courts to use slightly different interpretive rules or craft slightly different remedies. This final Part considers whether a search-centered theory of contract casts any light on two of the most important areas of

138. It is true that making this intuition into a hard-and-fast rule would invite parties to abuse consumers' lack of knowledge. However, it would do so no more (and probably less) than the current legal fiction of awareness of, and consent to, contractual terms by consumers.

evolving contract law: electronic contracting and sales law under the Uniform Commercial Code.

A. SEARCH COSTS IN ELECTRONIC CONTRACTING

The Internet has not revolutionized contract law any more than it has revolutionized torts or criminal law.¹³⁹ However, the Internet has significantly shifted the way many people contract.¹⁴⁰ Parties now perform comparison shopping on auction or aggregation sites. Deals happen more quickly, over longer distances, and across borders.¹⁴¹ Computers often take care of the actual ordering, and machine-made contracts are routine in industries that use just-in-time inventory methods.¹⁴² The reduction of search costs occasioned by integrated and computerized networks has shifted contracting to a strongly search-oriented practice. On the other hand, negotiation is not a part of the overwhelming majority of online transactions.¹⁴³ Search engines permit parties to seek the price point, the

139. Frank H. Easterbrook, *Cyberspace and the Law of the Horse*, 1996 U. CHI. LEGAL F. 207, 208 (noting that the laws of "cyberspace" are about as substantial as the laws of the "horse").

140. David G. Post, *Against "Against Cyberanarchy"*, 17 BERKELEY TECH. L.J. 1365, 1374 (2002). Post lists some reasons for the shift:

It does not take a great deal of insight or deep thinking to come up with ways in which activity in cyberspace is functionally not identical to activity in realspace. For example, in cyberspace, I can communicate an offer to sell some product or service instantaneously (or nearly so); at zero marginal cost (or nearly so); to several million people; [and] with near-zero probability of error in the reproduction or distribution of that offer

Id.

141. Jack Goldsmith famously argued that these differences are nonexistent because the law was quite capable of dealing with cross-border disputes—say, international copyright disputes—before the advent of networked computer systems. See Jack L. Goldsmith, *Against Cyberanarchy*, 65 U. CHI. L. REV. 1199, 1200–02 (1998). That this opinion still commands a majority in the legal literature is deeply puzzling. To make the argument, one must assume that the quantity of cross-border transactions has no yield in the quality or cost of cross-border enforcement. Since this is wrong, Goldsmith's approach seems incomplete.

142. See Radin, *supra* note 51, at 1140. Radin notes:

Manufacturing is becoming ever more automated, and the advent of the machine-made contract completes the picture by automating the supply process. If some computer processor "realizes" that more supplies are needed at a certain part of the assembly process, it can also search certain suppliers and see which can most readily supply what is needed, and it can give the go-ahead for the supplies to be delivered. Computers at each end of the transaction could be programmed with sets of terms; when the buyer computer encounters a seller computer, they could enter into a computerized handshake protocol, and if they determine that they have a set of terms in common they could arrive at a commitment, without a human being having to sign off on it.

Id.

143. See, e.g., *Hendrickson v. eBay, Inc.*, 165 F. Supp. 2d 1082, 1084 (C.D. Cal. 2001) (discussing the popularity of sites such as eBay where over twenty-five million buyers and sellers

warranties, the guarantees, and the service they desire not by negotiation, but by searching and choosing from a range of off-the-shelf options.¹⁴⁴

The following subparts deal with two basic aspects concerning the impact of technology on contracting behavior. First, new technology permits faster searches. But this alone does not generate a theory of how the law ought to respond to the new technology. Second, searching is a bilateral business: Contracts and products have become search optimized in order to take the greatest advantage of the new technology.¹⁴⁵

1. The Technology of Search

Networked systems facilitate searches,¹⁴⁶ and computers can search through pre-set criteria quickly.¹⁴⁷ The harder question, though, is how the law ought to respond to these shifts in technology. The danger is that by noting technological shifts, legal analysis might become technologically deterministic. Too many mediocre legal arguments rely on technological change. The usefulness of those arguments lasts precisely as long as the technological shift they address remains current. Thus, the purpose of this subpart is not to argue that technological change must drive changes in the law, but rather to identify a continuum of search and negotiation costs that vary as a function of human contracting behavior and technology.

Searches have become cheaper as a function of networked computer systems.¹⁴⁸ As each network becomes plugged into the pool, the value of every networked computer grows. Moreover, searches are themselves searchable: If an aggregator or auction site like eBay has available searches for thousands of items, an aggregator of searches can include eBay's auctions, plus the auctions from a number of other auction sites.¹⁴⁹ Searches are therefore a positive pyramid scheme: the information metastasizes across the networked system, finally becoming available to the end user at low cost.¹⁵⁰

of consumer goods and services search for and buy items via either an auction or a fixed-price format).

144. See, e.g., *Gentry v. eBay, Inc.*, 121 Cal. Rptr. 2d 703, 706 (Ct. App. 2002).

145. *Id.* at 832; see *infra* notes 159–63 and accompanying text (discussing *Gentry*).

146. See Katz, *supra* note 8, at 16, 29.

147. *Id.* at 16–20.

148. Of course, technology has made negotiation easier as well, but that was one communications revolution ago. Technology has added little to the tools of negotiators following the advent of near-instant person-to-person communication that the telegraph or telephone accomplished.

149. The practice has caused some legal controversy, leading to a resurrection of the antiquated trespass-to-chattels tort in the online context. See, e.g., *eBay v. Bidder's Edge*, 100 F. Supp. 2d 1058, 1060–61, 1066–67 (N.D. Cal. 2000).

150. For a remarkable example of the effect of pyramidal-information schemes on the price of information, see Wikipedia, <http://www.wikipedia.org> (last visited Feb. 6, 2007), a vast information collection assembled at near-zero cost and free to information consumers. The point is not that Wikipedia itself is interesting or useful. Rather, the point is that it was

The benefits of search are not only high, they are easily available to prospective searchers. Because of easy access and low cost, search engines have become part of consumers' everyday lives. AOL recently mistakenly released a massive archive of search queries from AOL users, which revealed precisely what AOL users had been searching for.¹⁵¹ The data indicates that parties use search engines to find information on every sort of topic: shopping, sex, personal acquaintances, hobby or historical interests, religion, and more.¹⁵² The AOL data, and the analysis built upon it, show that consumers use search engines reflexively—often before using any other method (such as consulting with another person). Familiarity, in turn, breeds use. Because search engines fill so many roles in users' lives, it is unsurprising that consumers increasingly use search engines to satisfy their commercial needs.

The growth of networked systems has not only changed what and how much people search, but it also has changed the balance between search and negotiation. Consumers can conduct more deals that previously required customized contracting via search. Niche markets that would previously have been unsustainable are now profitable. For example, if a party desired to purchase a non-standard-length pool table for her small basement, she might once have had to order a custom-built table. However, with the growth of niche markets fueled by searchable networked systems, the purchaser might now search for a manufacturer that has found it profitable to have a limited run of non-standard pool tables.¹⁵³

A search-oriented theory of contract suggests a way that the law can respond to these changing realities. Rather than passing statutes that lag behind technology and are obsolete by the time they are promulgated, it might be preferable to adapt common law rules that vindicate the decisions contracting parties currently are making.

2. Search Optimization and Contract

Technology alone does not entirely, or even mostly, account for the very real rise in the search capability of the Internet. Technology is limited—computers can only search for predefined parameters. Anyone who has become frustrated using a search engine realizes the limitations of

assembled in the face of what ought to be insurmountable transaction costs. Please note that references to Wikipedia in this Article are used only for purposes of demonstrating the use of these terms within the computer-literate community of search optimizers, and not, as it were, for the truth of the matter asserted.

151. See Paul Boutin, *You Are What You Search*, SLATE, Aug. 11, 2006, <http://www.slate.com/id/2147590>.

152. *Id.* (setting forth different types of search profiles from AOL user data); see also Valleywag, <http://www.valleywag.com/tech/aol/aol-creepy-user-watch-volume-9-193364.php> (last visited Feb. 6, 2007) (serving as a clearinghouse for AOL user-profile information).

153. See, e.g., The Factory Outlet, *Selecting the Right Size Pool Table for Your Home*, <http://www.thefactoryoutlet.com/pool-table/table-size.asp> (last visited Feb. 6, 2007).

computerized searches.¹⁵⁴ In a very real way, a computer can only find something that a human has already found and made searchable in some way. This process is called “search optimization.”¹⁵⁵ It is worth first discussing the present phenomenon of search optimization and then tying the practice back into contract law.

If a person searches Google for television sets, Google selects the first ten results that appear to the user based on search optimization. Search optimization is the practice of making a website particularly readable to the computer programs that scan the Web, cataloguing key words and content, and reporting back to the search engines.¹⁵⁶ Website owners often “submit” their sites to the search engine—that is, submit a request that a program re-scan their website and see what it has to offer.¹⁵⁷ Search optimization therefore requires a balance between what people will want to search for and what the software that scans the site will be able to read and correctly categorize, so as to give searching parties access to it.¹⁵⁸

The party offering the information very much determines searchability. That party both has responsibility for, and derives benefit from, the searchability of its offer.¹⁵⁹ For example, in *Gentry v. eBay*, the court determined that when an individual seller placed his merchandise in a false search category, the search category was part of the contract, and the individual seller made the false representation.¹⁶⁰ Thus, an individual seller

154. A simple example involves computer searches using “spell checking” software. The spellchecker is limited in its ability to search context: If the word “for” is misspelled “fore,” it will go undetected because the computer has not yet been told that that is an incorrect use of the term.

155. See generally Wikipedia, Search Optimization, http://en.wikipedia.org/wiki/Search_engine_optimization (last visited Feb. 6, 2007) (providing an overview of search engine optimization).

156. *Id.* (“Search engine optimization . . . as a subset of search engine marketing seeks to improve the number and quality of visitors to a website . . . [by making the search results] ‘natural’ . . .”).

157. See, e.g., AddPro.com, <http://www.addpro.com> (last visited Feb. 6, 2007); BuildTraffic.com, <http://www.buildtraffic.com> (last visited Feb. 6, 2007); Ultimate Promotion, ProSubmit, <http://ultimatepromotion.com> (last visited Feb. 5, 2007); Submit Express, <http://www.submitexpress.com> (last visited Feb. 6, 2007).

158. The latter task commonly is referred to as categorizing the “metadata.” See, e.g., Wikipedia, Metadata, <http://en.wikipedia.org/wiki/Metadata> (last visited Feb. 6, 2007).

159. See, e.g., *Gentry v. eBay, Inc.*, 121 Cal. Rptr. 2d 703, 708–09 (Ct. App. 2002). Plaintiffs alleged that eBay was responsible for categorizing items under the subcategory “SPORTS: Autographs;” and that, as a result, eBay was liable for memorabilia that was not in fact autographed. *Id.* The court noted that the individual sellers of the items were the ones who had set the search categories of the memorabilia and, thus, were the parties bound by those search categories. *Id.*

160. *Id.* at 823–24. In describing how eBay operates, the court noted:

Members who wished to place an item for sale on eBay would themselves choose the main category (e.g., “Sports”) and subcategories (e.g., “Autographs”) under which their item would be listed for sale. Thereafter, the Website would prompt

who set the category for an item of phony sports memorabilia to “SPORTS: Autographs” was responsible for that representation,¹⁶¹ and eBay was not.¹⁶² The importance of this and similar decisions is two-fold: First, the court deemed unilateral, pre-contractual behavior—the selection of a search category—as central to the contract; and second, the person who selected the category is primarily liable, rather than the entity that created the search categories.¹⁶³

Websites are another form of free-floating contract, discoverable by search. Many terms of use or terms of service bind parties merely because those parties browse the website.¹⁶⁴ Every time a party searches for a website and then navigates to that website, it enters into a contract.¹⁶⁵ For example, by navigating and using eBay’s service, you agree to its terms of use. Some of

the seller to provide other information, including the title and description of the item. eBay requested that the court take judicial notice under Evidence Code section 452, subdivision (h) of the fact “[a] user listing an item for sale on eBay’s web site selects the category and subcategory under which her item will appear on eBay’s web site.”

Id. (alteration in original).

161. *Id.*

162. *Id.* at 824. This is consistent with courts’ general practice of deeming an internet service provider immune from suit where it does not select the content on its website but merely acts as a forum or conduit. *See, e.g.,* Carafano v. Metrosplash.com, Inc., 339 F.3d 1119, 1125 (9th Cir. 2003) (holding that a matchmaker website’s structure of information and searches did not make it responsible for the content of its users); Green v. Am. Online, 318 F.3d 465, 470–71 (3d Cir. 2003) (upholding AOL’s immunity from a third party’s transmission of defamatory messages and a program designed to disrupt the recipient’s computer); Corbis Corp. v. Amazon.com, Inc., 351 F. Supp. 2d 1090, 1098 (W.D. Wash. 2004) (holding service provider Amazon.com immune from suit over third-party content posted in its zShops.com forum).

163. *See, e.g.,* Carafano, 339 F.3d at 1124–25. The court noted:

We also note that, as with eBay, Matchmaker’s decision to structure the information provided by users allows the company to offer additional features, such as “matching” profiles with similar characteristics or highly structured searches based on combinations of multiple choice questions. Without standardized, easily encoded answers, Matchmaker might not be able to offer these services and certainly not to the same degree.

Id.

164. Of course, while the positive aspects of websites are well publicized and searchable, negative aspects routinely are hidden deep in non-optimized contracts. Terms of Service are not optimized but are binding. Under a search theory of contract, it may well be that the non-optimization of terms of service would serve as grounds for discounting the provisions.

165. *See* Ann Bartow, Remarks at the Privacy and Security Session, Colloquium on the Digital Frontier: The Buffalo Summit 2001 (Nov. 3, 2001), in 50 BUFF. L. REV. 703, 723–24 (2002) (indicating that if companies have privacy policies “they must at least comply with their own policies,” and when a party voluntarily adopts that policy, she is bound).

these terms extend to third-party contracts and set the rules for the environment in which eBay users contract with each other.¹⁶⁶

Optimization works equally well for aggregation and auction sites, where parties rapidly compare terms or scan many different goods being offered. Parties routinely search for offers; whether they see an offer often depends on whether the offeror optimized for searches. Thus, including the correct words in the offer, or selecting the appropriate category for the offer, can directly drive the number of bids the offer obtains.¹⁶⁷

There are several implications of search optimization for contract theory. First, search is not an entirely unilateral process. The offering party can hide or optimize terms for searches. The traditional characterization of search costs as being unilaterally incurred is the greatest stumbling block to recognition of searches in contract. However, by recognizing the degree of agency available to the party searched, one can begin to understand that searches are a bilateral activity.¹⁶⁸ Thus, the degree of optimization ought to play into a court's decision regarding enforceability.

The second implication of search optimization for contract law is to solve the problem of the unsearchable contract. The nascent literature of search has noted that computers could indeed facilitate fast searches of contracts because computers read documents quickly.¹⁶⁹ The problem has always been, however, that computers cannot read documents unless they seek predefined parameters.¹⁷⁰ If a party inserts a non-standard term into a document, the computer may not recognize that term.¹⁷¹

166. See, e.g., *Foster-Gwin, Inc. v. Fallwell*, No. C 01-03068 WHA, 2001 U.S. Dist. LEXIS 18151, at *7 (N. D. Cal. Nov. 5, 2001). A description of eBay's ground rules for contracts with third parties states:

3.1 Online Auctions. Although we are commonly referred to as an online auction web site, it is important to realize that we are not a traditional "auctioneer." Instead, our site acts as a venue to allow anyone to offer, sell, and buy just about anything, at anytime, from anywhere, in a variety of formats, including a fixed price format and an auction-style format commonly referred to as an "online auction." We are not involved in the actual transaction between buyers and sellers. As a result, we have no control over the quality, safety, or legality of the items advertised, the truth or accuracy of the listings, the ability of sellers to sell items or the ability of buyers to buy items. We cannot ensure that a buyer or seller will actually complete a transaction.

Id.

167. See *Gentry v. eBay, Inc.*, 121 Cal. Rptr. 2d 703, 707-09 (Ct. App. 2002) (noting that eBay provides such tools in order to "better enable users to place items for sale on its site").

168. And, of course, negotiation in most modern contracts is a legal fiction and is entirely unilateral.

169. See *Katz*, *supra* note 8, at 16.

170. *Id.* at 29.

171. See *Gentry*, 121 Cal. Rptr. 2d at 708-09 (discussing how sellers describe and categorize their products).

However, the answer to the problem of searchability is to recognize that humans can and will make contracts searchable with the right incentives. If courts recognize the value of search optimization for contracting parties, the practice will become even more widespread. Bold type or capital letters were the old means of rendering a term prominent and easily searched by the human eye. Correct categorization (e.g., a television set listed in the “electronics” category of eBay), correct matching by keyword (“television,” “t.v.,” “TV,” “Magnavox”), and other search optimizations are, in other circumstances, more effective. The contract is no longer being read by a human, but by a machine following human instruction. The justification for the rules has not changed. Initialing draws a human’s attention to a specific contractual provision, while search optimization makes it simpler for a computer to flag the specific provision so that the contracting party will take note.

Courts cannot affect technology directly, but they can alter the incentives to engage in certain kinds of contracting behavior. The Internet enables faster searches not purely because machines are fast, but because contract offerors value the searchability of the information they place into the network. If courts do not recognize searched-for terms, contracting parties will inefficiently avoid search optimization. Likewise, if courts do not validate searched-for terms, such as the search category of an eBay purchase, purchasers will take expensive precautions or will sub-optimally invest in search activity. In short, the search benefits of networked computers are not emergent characteristics of technology. The benefits are derived from human behavior, and thus, courts can either validate or undercut that behavior by altering the incentives to search.

B. THE UNIFORM COMMERCIAL CODE, STANDARDIZATION, CUSTOM AND PRACTICE, AND THE BATTLE OF THE FORMS

The Internet is one search-centered contractual medium, but hardly the only one. The Uniform Commercial Code (“UCC”) Article 2, governing sales of goods in all fifty states, is an admixture of law, theory, and industry practice that has an overarching goal of lowering the costs of commercial transactions. If anywhere, we ought to expect to see search interests weighed in the UCC and in UCC-governed transactions.

Article 2 has been criticized for insufficiently tracking the will of the parties to make individualized transactions because it provides default provisions and non-disclaimable warranties.¹⁷² For example, scholars have

172. See, e.g., Douglas G. Baird & Robert Weisberg, *Rules, Standards, and the Battle of the Forms: A Reassessment of § 2-207*, 68 VA. L. REV. 1217, 1251 (1982) (“The cost of off-the-rack provisions is that they supply, or allow courts to supply, inefficient terms in some cases. But many who extoll the virtue of the Code for supplying terms whenever the parties do not reach explicit agreement do not appreciate this cost.”); Daniel Keating, *Exploring the Battle of the Forms in Action*, 98 MICH. L. REV. 2678, 2689 (2000) (“[A]n even more fundamental concern with the

criticized the so-called “battle of the forms,” whereby parties form contracts from the set of common terms searched and offered, while neither party assents to the entirety of the other’s offer because it does not correspond to any coherent concept of negotiated consent.¹⁷³ The UCC focuses less on individuals and more on the contracting community, by placing a strong emphasis on evidence of industry custom and practice.¹⁷⁴

If we use a search lens of contract, these provisions of the UCC begin to make sense. The UCC’s provisions streamline the process of searching for and finding a contractual counterparty while limiting the range and role of negotiation. If standardized provisions are the bedrock of a given contractual relationship, then making them non-optional lowers search costs (if a warranty is non-disclaimable, then parties do not have to search contracts for disclaimers). A search-centered approach to contract can help us make sense of the successes of the UCC while permitting us to suggest some areas in need of tuning.

1. Article 2 Lowers Search Costs Ex Ante

The UCC has adopted several rules that directly lower search costs for contracting parties during the search for an acceptable deal. The two rules discussed here are the UCC’s liberal use of industry custom and practice to define contractual terms¹⁷⁵ and the UCC’s “battle of the forms” provision, which lowers search costs by limiting contracts to the terms for which the parties were searching.¹⁷⁶

The UCC makes a point of including evidence of industry custom and practice to clarify contract terms.¹⁷⁷ Custom and practice is the traditional means whereby courts incorporate the community lexicon into contracts and, as such, is a search-friendly rule. In the common law context, courts often use the parol-evidence and four-corners doctrines to limit the reach

default mechanism of the current battle of the forms is not that it favors buyers, but rather that it yields terms that may be in neither party’s interest.”).

173. Baird & Weisberg, *supra* note 172, at 1249–50.

174. *See, e.g.*, U.C.C. § 2-207 (2003). Comment 5 to UCC section 2-207 states:

Examples of clauses which involve no element of unreasonable surprise and which therefore are to be incorporated in the contract unless notice of objection is seasonably given are: . . . a clause providing for interest on overdue invoices or fixing the seller’s standard credit terms where they are within the range of trade practice and do not limit any credit bargained for; [and] a clause limiting the right of rejection for defects which fall within the customary trade tolerances for acceptance “with adjustment” or otherwise limiting remedy in a reasonable manner.

Id. at cmt. 5 (citing *id.* §§ 2-718, -719).

175. *Id.* § 1-303(d)–(g) (2005).

176. *Id.* § 2-207 (2003).

177. *Id.* § 1-303(d)–(g) (2005).

and applicability of such industry evidence.¹⁷⁸ However, the UCC's reliance on custom-and-practice evidence permits the broader contracting community to participate in the construction of contract language that may affect the community as a whole.¹⁷⁹

This, in turn, lowers search costs *ex ante* for third parties seeking prospective contracting counterparties. By enforcing industry-standard terms, courts applying Article 2 give third parties the assurance they need to enter into their own transactions. This is more than the parties' assurance that courts will construe contracts in a predictable way if the parties pursue litigation. Rather, third parties gain from lower search costs outside of litigation: The resulting unification of language makes it easier for parties to determine whether they can get what they want without engaging in costly negotiation.

The UCC lowers search costs for *ex ante* searchers in other ways. One much-discussed feature of Article 2 is the "battle of the forms" provision, which assembles a contract out of the mutually-agreed-upon portions of forms exchanged by parties, whether or not either party has consented to the whole.¹⁸⁰ Although the provision has been revised as part of the Article 2 revision process, the fundamental character of the rule remains the same: A contract may be formed that consists neither of the set of terms offered, nor of the set of terms set forth in an acceptance.¹⁸¹ Indeed, the revision

178. *See, e.g.*, *Air Safety v. Teachers Realty Corp.*, 706 N.E.2d 882, 884–86 (Ill. 1999); *Eichengreen v. Rollins, Inc.*, 757 N.E.2d 952, 958 (Ill. App. Ct. 2001). *See generally* Marie Adornetto Monahan, *Survey of Illinois Law: Contracts—The Disagreement Over Agreements: The Conflict in Illinois Law Regarding the Parol Evidence Rule and Contract Interpretation*, 27 S. ILL. U. L.J. 687 (2003).

179. *See* U.C.C. § 1-303(d) (2005) (indicating that trade usage and course of dealing should be used to construe contract terms).

180. *Id.* § 2-207(1)–(2) (2003). The pre-revision Article 2 of the UCC reads, in part:

(1) A definite and seasonable expression of acceptance or a written confirmation which is sent within a reasonable time operates as an acceptance even though it states terms additional to or different from those offered or agreed upon, unless acceptance is expressly made conditional on assent to the additional or different terms.

(2) The additional terms are to be construed as proposals for addition to the contract. Between merchants such terms become part of the contract unless:

- (a) the offer expressly limits acceptance to the terms of the offer;
- (b) they materially alter it; or
- (c) notification of objection to them has already been given within a reasonable time after notice of them has been received.

Id.

181. *See* U.C.C. § 2-207 (2005). As of the time of this Article, no state has adopted the approved revisions of Article 2. Revised section 2-207 still determines that a contract may be formed out of records that might otherwise be inadequate to create a contract, even when additional or differing terms are offered.

strengthens the “knockout rule,” which removes differing terms between offeror and acceptor and supplants those terms with default rules.¹⁸²

The provisions of the UCC that permit contract formation without the parties’ assent to a single set of terms and conditions have been routinely criticized as inefficient because they hamper bilaterally contracting parties’ ability to craft the bargains they desire.¹⁸³ But the battle of the forms is, in fact, a search-cost-reducing rule. A form is a kind of search: A party searches for a counterparty that matches the desired contractual terms. Imagine a computer that has a database of all prospective contracts on offer. A party could enter the terms of the contract that she wants and have the computer search for offers that matched the desired contractual terms. That party would then have a contract by virtue of search rather than negotiation.

The battle of the forms is like a peer-to-peer search for a contracting partner. Where the terms of the offer and acceptance do not precisely match, the rule attempts to make them match unless either party indicates that they do not wish to benefit from a broad search. In the battle-of-the-forms context, the contract offer and acceptance are like Internet dating. The dating service matches one profile to another and finds the greatest common ground to see if there can be a profitable match. No two profiles will match in every respect, so the dating service streamlines the searches so that general matches will be able to get together. This is precisely what the battle of the forms does, with the additional advantage of not needing a computerized database. The contract “returned” by the battle of the forms consists of the search terms that matched on both sides of the equation—the result of two searches and matches.

This is not to say that the battle of the forms cannot usefully be read in other ways or that it cannot validly be criticized.¹⁸⁴ For example, many courts have read the rule to “knock out” differing provisions.¹⁸⁵ The default rules in

182. *See id.*

183. *See generally* Alex Devience, Jr., *The Renewed Search for the “Bargain in Fact” Under the U.C.C. Section 2-207: Battle of the Forms, Part II?*, 9 DEPAUL BUS. L.J. 349 (1997); Victor P. Goldberg, *The “Battle of the Forms”: Fairness, Efficiency, and the Best-Shot Rule*, 76 OR. L. REV. 155 (1997); Keating, *supra* note 172, at 2688–90; Daniel T. Ostas & Frank P. Darr, *Redrafting U.C.C. Section 2-207: An Economic Prescription for the Battle of the Forms*, 73 DENV. U. L. REV. 403 (1996).

184. Of course, scholars adopting the traditional law-and-economics approach might criticize the above analysis on more-or-less libertarian grounds: The parties are being forced into an agreement to which neither had consented. This view is mired in the negotiation model of contract. If we do believe that parties painstakingly and solely negotiate contractual provisions, then of course we ought not to enforce a searched but non-negotiated deal. I cheerfully concede to the critics in this minute percentage of cases.

185. *See Daitom, Inc. v. Pennwalt Corp.*, 741 F.2d 1569, 1579 (10th Cir. 1984) (finding that where a buyer’s purchase order contained different terms than those contained in seller’s offer, the “knockout rule” applied and operated to cancel out the different terms); *Richardson v. Union Carbide Indus. Gases, Inc.*, 790 A.2d 962, 966–67, 969 (N.J. Super. Ct. App. Div. 2002) (noting that the knockout rule was adopted for conflicting terms in contracts governed by New Jersey’s UCC and holding that the application of that rule to a contract regarding the purchase

the UCC replace knocked-out provisions.¹⁸⁶ Thus, when parties offer differing terms, they may end up with final terms that neither one of them wanted.¹⁸⁷ Indeed, despite the criticism of the knockout rule, the proposed revision of section 2-207 clarifies the language in favor of knockout.¹⁸⁸

The knockout rule certainly raises frustration costs because it prevents parties from seeking precisely the bargains they desire. Are there recognizable efficiency gains from the knockout rule? A comparison to property theory helps. The knockout rule constrains the set of contracts available to parties to one of two categories: (1) a standardized-contract set that has been developed by the industry (i.e., the terms of both offer and acceptance match); or (2) the default rules provided by the UCC. Either way, the parties benefit from low search costs. In the property context, one can be sure that the property will fall into one of a closed set of property types. Likewise, under the UCC's knockout rule, the parties can be sure that their contract will also be one of a closed set—either one familiar to them by industry, or one supplied by the UCC. Thus, it seems at least plausible that search-cost reduction is one of the reasons that the knockout rule, although so often criticized, remains a staple of the UCC.

2. Article 2 Presumes Low Search Costs Ex Post by Limiting Remedies and Requiring Cover

The UCC not only works to lower search costs but also banks on low search costs by encouraging parties to search where search costs are low. In a market for fungible goods, courts can reasonably expect repeat players—such as merchants—to find someone else to provide what they need at an acceptable cost.¹⁸⁹ The UCC therefore disfavors specific performance as a remedy.¹⁹⁰ Instead, Article 2 offers the remedy of substitute performance—cover for a buyer or resale for a seller.¹⁹¹ The UCC encourages a party suffering a breach to attempt to find another contractual counterparty.¹⁹²

If Party A breaches with Party B, Party B may, without otherwise prejudicing its remedies, solve its problem as cheaply as possible by immediately covering and then seeking the difference between the contract

of furnace parts meant that conflicting indemnification provisions were not part of the contract); *Flender Corp. v. Tippins Int'l, Inc.*, 830 A.2d 1279, 1287 (Pa. Super. Ct. 2003) (holding that differing terms regarding the arbitrability of a dispute in an offer and an invoice between the purchaser and seller caused both terms to be knocked out).

186. See *supra* note 180.

187. See Keating, *supra* note 172, at 2689.

188. See *supra* note 180.

189. See *Hertzog v. Hertzog*, 29 Pa. 465, 467 (1857) (“All five contracts grow out of the intentions of the parties to transactions.”).

190. U.C.C. § 2-716 (2003).

191. See *id.* §§ 2-712, -706.

192. *Id.*; see also *id.* § 2-610 (discussing remedies in the context of anticipatory repudiation).

and cover prices from Party A.¹⁹³ If Party B can make the problem go away entirely by contracting with a third party for a price point equal to or below that of Party A, then the UCC encourages Party B to take that route.¹⁹⁴ Although a price point better than the market price is possible, it rarely occurs because parties who have contracts that beat market prices tend to hold up their end of the bargain in the hopes of enforcing the contract. Thus, the UCC's preferred remedy for high negotiation costs (fixing a current broken contract) is to replace the counterparty through low search costs (finding another counterparty).

But the remedy of substitute performance is only attractive if the costs of searching a prospective counterparty are relatively low. The party can, after all, seek other remedies under the UCC. The party will compare the cost of securing substitute performance, which the victim of breach pays out-of-pocket and up front, with the expense of having a trier of fact set a market price.¹⁹⁵ Only where the expected cost of substitution is lower than the cost of proof will substitution be an attractive remedy.¹⁹⁶

By comparison, the U.N. Convention on Contracts for the International Sale of Goods ("CISG") presumes a quite different set of search costs.¹⁹⁷ The CISG gives specific performance as a remedy for contractual violations.¹⁹⁸ When a party contracts across international borders, it may engage in expensive searches to find a cross-border partner that provides the desired commodity.¹⁹⁹ If a party contracts with a foreign partner and there is a breach of contract, a replacement may be quite difficult to find. CISG's remedy of specific performance may reflect the realities of these searches. If finding an alternative contracting party is quite expensive, specific performance is the preferred remedy to compensate for the higher search costs.²⁰⁰

193. See *id.* § 2-712(3) ("Failure of the buyer to effect cover within this section does not bar him from any other remedy.").

194. See *id.* § 2-712.

195. See GILLETTE & WALT, *supra* note 64, at 331. ("[Substitute transactions] enable the party to avoid having a trier of fact determine market price—a determination that is sometimes costly to prove.").

196. *Id.* at 332 ("Fixing damages by resale or cover can be costly to the aggrieved party, however At the same time, by fixing its damages the seller avoids incurring the costs of proving market price.").

197. Katz, *supra* note 131, at 385.

198. *Id.* at 383 ("The international nature of CISG transactions affects relative transaction costs in a number of overlapping ways. It is . . . more costly to communicate information before and during exchange (especially when the greater risk of miscommunication is counted as a cost)").

199. *Id.* ("It is . . . more costly to monitor the performance and reliability of contractual partners [in CISG transactions], and more costly to litigate and settle disputes.").

200. *Id.* at 386 ("In general, greater relational investment, by reducing the substitutability of alternative contractual partners, also favors the greater use of specific performance.").

3. Article 2 and Online Transactions

Search theory can also help explain two of the principle oddities of transactions in software: (1) why Article 2 of the UCC has been selected to govern licenses of intellectual property (software), and (2) why contracts for the customization of software fail at extremely high rates. This section discusses each of these in turn, using search theory to explain their persistence.

One strange fact of modern Internet law is the adoption of Article 2 of the UCC, governing the sale of goods, to govern contracts that address licenses of software.²⁰¹ The majority of states declined to adopt the Uniform Computer Information Transactions Act ("UCITA"), which applied the UCC's lenient approach of standardization to "mass market transactions" in computer software.²⁰² However, what the states chose not to do by statute, courts have opted to do as a matter of common law. Although numerous courts have passed on the question as to exactly why the UCC's sale-of-goods provisions apply to software-licensing contracts, almost all have decided to do so.

It is not immediately clear that such courts are correct. There are serious questions regarding the democratic legitimacy of adopting a statutory scheme as a matter of common law. Such a statutory scheme would govern concerns beyond those raised by the parties in any given case. But questions of the wisdom of importing statutory regimes that have not been voted upon to new areas via the common law aside, there remains the question: Why do courts think that the sales provisions of UCC Article 2 are so salutary for the sale of license rights in intellectual property?

At first blush, the two areas seem to have nothing in common. License rights remain attached to the licensee and also likely run with subsequent purchasers of the software.²⁰³ Most client-side programs have significant interaction with server-side components controlled by the software

201. See, e.g., Warren E. Agin & Scott N. Kumis, *A Framework for Understanding Electronic Information Transactions*, 15 ALB. L.J. SCI. & TECH. 277, 299 (2005) (discussing courts' application of Article 2 to off-the-shelf contracts but reluctance to do the same for software-customization deals); see also *Hill v. Gateway 2000, Inc.*, 105 F.3d 1147, 1149 (7th Cir. 1997) (applying UCC to a software-licensing case); *ProCD, Inc. v. Zeidenberg*, 86 F.3d 1447, 1452 (7th Cir. 1996) (same).

202. Glen O. Robinson, *Personal Property Servitudes*, 71 U. CHI. L. REV. 1449, 1474 n.89 (2004) ("Although UCITA was adopted in two states, Virginia and Maryland, such has been the fury of opposition to its enactment elsewhere that the National Conference of Commissioners on Uniform State Laws has now abandoned efforts to promote its further adoption." (citing Michael Wanecke, *UCITA Drafters Ditch Licensing Act as Ahead of Its Time, Politically DOA*, 8 ELECTRONIC COM. & L. REP. 771 (2003))); see also Radin, *supra* note 51, at 1129 (noting that only two states, Maryland and Virginia, have passed the UCITA).

203. See *ProCD*, 86 F.3d at 1451.

creator.²⁰⁴ Thus, regardless of who buys the client-side program from whom, a court is likely to hold the license agreement viable against subsequent purchasers.²⁰⁵ For example, in *Davidson & Associates v. Jung*, the Eighth Circuit determined that a license agreement bound subsequent purchasers of software.²⁰⁶ This created a paradox: Although purchasers had a right to reverse-engineer the software for interoperability reasons, they were not permitted to see the program unless they agreed to give up that right.²⁰⁷

Perhaps the similarities lie elsewhere, such as in Article 2's search-friendly set of rules. Software is text; as such, the line between purchasing the right to use different components ("modules") of software, and purchasing the software itself, is razor-thin.²⁰⁸ Thus, sales of software blend different categories of search because contract terms and features largely are interchangeable.²⁰⁹ Suppose you seek to purchase and download Microsoft Office. You can select each of the modules (PowerPoint, Excel, etc.) for separate purchase, or you can purchase the software as a whole. The act of searching for the specific software components is tantamount to searching for the specific licenses you wish to purchase.²¹⁰

Similarly, the license is integrated with the software.²¹¹ Suppose a person purchases a single personal copy of software. That software is enabled to run on a single computer. Now suppose the buyer purchases a site license that enables all computers at a single location to run the software. The license is a feature of the software, and the software is plugged into the license.

204. See, e.g., Wikipedia, Client-server, http://en.wikipedia.org/wiki/Client_server (last visited Feb. 6, 2007) (defining client server).

205. See *Davidson & Assocs. v. Jung*, 422 F.3d 630, 642 (8th Cir. 2005) (construing a software license as preventing subsequent users of software from playing online video game).

206. See *id.* at 640.

207. *Id.* at 640–42.

208. See Radin, *supra* note 51, at 1143 ("Computer programs are both text and machine. They are text when considered as code statements, they are machines when considered as devices for accomplishing a task.").

209. *Id.* at 1144. Radin discusses this interchange ability:

The functionality that is supplied can be customized: for example, manufacturing computers to order. Content (textual products) can also be customized, geared toward the users' tastes or political views. In the same way, customization of terms and conditions is possible. Instead of a take-it-or-leave-it set of fine print terms, a website could offer a menu of choices for various clauses, and the user could check boxes for which ones were desired. One might choose the warranty disclaimer (free) or the two-year warranty (pay \$1 extra); one might choose to accede to the arbitration clause (free) or the clause allowing litigation in one's home state (pay \$2 extra).

Id.

210. *Id.* at 1139.

211. *Id.* ("In the 'contract as product' view, the contract is part of the product, part of the collection of functional components, and not a separate text about that collection.").

This phenomenon may explain why courts have opted to apply the law of sales to the licensing of software. The core areas of law—licenses and sales—have surprisingly little to do with one another, but the core concept of lowering search costs where searches are the primary means of contracting exists for both sales of goods and software. Thus, the gains from using low-search-cost rules may outstrip the difficulties in applying the rules governing sales of goods to the licensing of intellectual property.

As a counterexample, negotiations for customized software features are infamous for cost overruns, failure, and eventual litigation.²¹² For example, companies that have extensive inventory-tracking systems or service-tracking systems often contract with software vendors to have software systems written to comport more closely with the precise needs of the company. These contracts for the customization of software are notorious, in information-technology circles, for failure.

Purchasers of software do not adequately budget for the development process.²¹³ They often are unwilling to take advantage of cheap workarounds by changing business practices instead of coding new systems into the software. Similarly, purchasers often under-communicate critical functionality, either because of a lack of knowledge as to what they should communicate or because an indication of need may weaken bargaining positions with the software provider.²¹⁴ Further, there is a particular puffing problem with sales representatives. Since vendors can code custom software to do anything, software salesmen can respond truthfully to nearly any

212. See, e.g., Olga Kharif, *iRise: Real Promise in Simulations*, BUS. WK. ONLINE, Feb. 2, 2005, http://www.businessweek.com/technology/content/feb2005/tc2005022_4709_tc024.htm.

213. See, e.g., James Bessen, *Open Source Software: Free Provision of Complex Public Goods* 23 (July 2005) (unpublished manuscript, on file with the Iowa Law Review), <http://www.researchoninnovation.org/opensrc.pdf> (noting that software “customers have highly disparate needs” and software is complex).

214. See, e.g., Ian Ayres, *The Possibility of Inefficient Corporate Contracts*, 60 U. CIN. L. REV. 387, 400 (1991). Ayres notes:

The potential inefficiency of signaling was eloquently captured by Dr. Seuss in his parable about the Sneetches. High-status Sneetches had stars on their bellies and low-status Sneetches did not. As the tale unfolds, vast inefficiencies are created as the low-status Sneetches try to match the high-status ones by affixing stars to their bellies and the high-status Sneetches try to further distinguish themselves by removing their stars.

question of proposed functionality.²¹⁵ The answer to the common question “can this software do X” is: “Yes—we can make it do X.”²¹⁶

Thus, the field for negotiation is wide open. Given enough money, the parties can have nearly anything they desire. Yet the failure rate of such contracts is startling. The very openness of the negotiation set causes the contracts for customization to fail. When purchasers of customized software negotiate in an unconstrained environment, they make bad contracts—contracts prone to failure and particularly susceptible to litigation because the systems are often inventory or receivables systems critical to the continuing operations of the company.

In sum, courts use Article 2, which normally governs the sale of goods, to govern contracts licensing computer software because doing so enables the majority of valuable contracts to be made with lower search costs. Search theory provides a simple answer to what otherwise appears to be an ad hoc series of problems in the sale of software—Article 2 governing software licensure, and contracting for the customization of software failing at high rates.

VI. CONCLUSION

This Article has sought to show that the negotiation model of contract does not provide a complete model of modern contracting’ costs. Contracting does not happen on an island. Rather, contracting is a networked activity in which parties search the network for terms and counterparties. The contractual language one party uses in her contracts affects third-party costs; other contracting parties must now use or avoid the term. The traditional focus on a closed universe of costs incurred by contracting parties must therefore give way when parties form an enormous number of contracts through offers and acceptances matched through searched networks of offered contracts.

Viewing contract behavior through the lens of search also gives lawyers tools to talk cogently about consent. Consent as a contractual doctrine has become vestigial—as negotiation becomes a smaller part of contracting, negotiated consent has become a largely mythological component of contract. But the search lens of contract returns the conversation about consent to relative simplicity. If the contract is search-optimized and if the

215. Distinctions between puffing and statements constituting express warranties are notoriously difficult for courts to parse. *Compare* *Olin Mathieson Chem. Corp. v. Moushon*, 235 N.E.2d 263, 264–65 (Ill. App. Ct. 1968) (holding that a statement that a product would please the user was mere puffing), *with* *Redmac, Inc. v. Computerland of Peoria*, 489 N.E.2d 380, 382–84 (Ill. App. Ct. 1986) (holding that a statement that a product would arrive free of defect was to be considered an express warranty).

216. For a more complete treatment of the role of engineer statements in litigation, see generally Donovan Bezer, *Your Programmer Promised It Would Work! How Software Engineers’ Well-Intentioned Statements Can Hurt When Their Employers Sue*, 26 RUTGERS L. REC. 2 (2002).

party has a meaningful opportunity to search for other counterparties, take-it-or-leave-it bargains can produce meaningful consent.

Finally, a search-oriented theory of contract gives us a simple way to understand the actual costs of modern contracting. Without this concept, courts will continue to spend resources seeking to determine the negotiated intent of the parties in non-negotiated contracts. Worse, parties will respond to the incentives created by court decisions by either engaging in negotiation where search would have been cheaper or avoiding searched transactions where uncertainty is too high. With a search-oriented theory of contract, on the other hand, courts can begin to adapt the common law to modern contracting practices. For example, courts might begin to see search-optimized contracts in a favorable light similar to that enjoyed by specifically negotiated contracts. Courts may also change their views that negotiation costs are bilateral and compensable, but search costs are unilateral and non-compensable. Courts will hopefully begin to see searches as bilateral through the process of search optimization—the searcher and the search-optimizer groping toward some common ground through searchable systems.

