The Moving Target:

Unilateral Modification, Illusory Promises, and Assent to a Continuously Changing Consumer Interface

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Abstract

A consumer who taps *I accept* and begins using an online service is told, when a dispute arises, that the act of acceptance bound the consumer to the provider's terms. This article concedes the point and asks the question that survives it. If acceptance binds, acceptance to what? Modern consumer interfaces do not hold still. The provider reserves the right to amend its terms at any time, and the interface through which the bargain is actually experienced, the advertising controls, the reporting paths, the placement of the operative buttons, changes continuously, often without notice and without any corresponding update to the agreement. The provider's own documentation frequently fails to describe its own product consistently. This article argues that even granting valid assent at formation, an agreement of this kind fails on three independent contract grounds and one consumer-protection ground. A promise the provider may modify at will, including retroactively and effective on posting, is illusory. Changes delivered without notice do not bind the party who never saw them. An agreement whose terms and interface reflow continuously, and which the provider cannot describe consistently, lacks the definiteness a contract requires. And the arrangement is unconscionable, with its central cost, the cost of relearning a moving target, falling hardest on users whose disabilities impair the executive function and working memory that relearning demands. The provider's escape from each defect is a single clause, the reserved right to amend; that clause is separately contestable on assent grounds, but this article does not rely on that challenge. It grants assent and shows the agreement fails anyway.

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I. Introduction

Consider a person who taps a button labeled *I accept* and begins using a large video platform. Over the following weeks, the platform's advertising controls change. Where a skip control sat last week, a relocated affordance sits this week. A reporting path the user relied on to flag an inappropriate advertisement, the same control that doubles as the user's route past an advertisement, is renamed and moved, then renamed again. The provider's own help documentation states that a certain category of advertisement is capped at thirty seconds, while the running application serves advertisements of ninety seconds.[1] Within a single product, across a single month, the interface and the provider's account of it do not hold still.

For purposes of this article, concede the provider everything it could want about contract formation. Assume the user clicked *I accept* with full legal effect. Or, if the user never logged in, assume that continued use manifested assent under a browsewrap theory, so that the terms reached the user through the act of using the service. Accepting means accepting. The question this article asks is the one that survives that concession. Accepted what?

The argument is that a consumer agreement the provider may rewrite at any time, and does rewrite continuously, fails on grounds that have nothing to do with whether the user assented at the outset. First, a promise the provider may modify at will, including retroactively and effective on posting, is illusory; it commits the provider to nothing and therefore supplies no consideration for the obligations it purports to impose. Second, a modification delivered without notice does not bind the party who never saw it; the routine, silent revision of a live interface is the delivery of changes without notice as a matter of ordinary operation. Third, an agreement whose terms and whose operative interface reflow continuously, and which the provider's own documentation cannot describe consistently, lacks the definiteness a contract requires; there

1. The running example throughout this article is illustrative and drawn from the publicly observable behavior of a major consumer video platform. The point does not depend on the specifics of any one provider; it depends on a pattern, the continuous revision of a consumer interface and the divergence between a provider's deployed product and its own description of that product, that is common across large consumer services. The empirical literature on interface manipulation discussed in Part II documents that pattern at scale.

is no fixed, knowable bargain to be bound to at any given moment. Fourth, the arrangement is unconscionable, and its central cost, the cost of relearning a moving target, falls hardest on users whose disabilities impair exactly the executive function and working memory that relearning demands.

A word on what this article does not argue. The provider's answer to each of these objections is a single clause, the reserved right to amend the terms at any time. That clause is itself open to challenge on the ground that the user never meaningfully assented to it, whether because the interface that presented it was cognitively inaccessible, or because a browsewrap theory imputes assent through a channel a disabled user cannot satisfy. Those challenges are real, and they are developed elsewhere. This article sets them aside deliberately. The point pressed here is narrower, and for that reason harder to evade. Even granting that the user assented to the reserved right to amend, that clause cannot accomplish what the provider needs it to accomplish. A reserved right to amend does not cure an illusory promise, does not supply notice of changes the user never saw, and does not make a continuously reflowing product into a definite agreement. Conceding assent does not rescue the bargain; it isolates the defects that assent cannot reach.

Part II describes the moving target as a factual matter and locates the contract within it, distinguishing the binding instrument, the terms of service, from the provider's noncontractual documentation and interface, which are evidence rather than terms. Part III states the concession this article makes and explains why granting assent arguendo strengthens rather than weakens the argument. Parts IV through VI develop the three contract defects: the illusory promise, the failure of notice, and the failure of definiteness. Part VII develops the unconscionability ground and the differential burden the moving target places on cognitively disabled users. Part VIII confronts the strongest contrary authority, the line of cases enforcing online terms where notice at formation was adequate, and shows that those cases address a question this article has already conceded. Part IX proposes a modest rule. Part X concludes.

II. The Moving Target

A. What Changes, and How Often

The defining feature of the modern consumer interface is that it is revised continuously and unevenly. A provider does not ship one product to all users and leave it in place. It ships many variants at once, testing them against one another, and it alters the interface on a cadence measured in days or weeks rather than in contract cycles. The controls that matter most to a user, the control that skips or reports an advertisement, the control that cancels a subscription, the control that adjusts a privacy setting, are precisely the controls most often moved, renamed, and restyled. A user who has learned where a control sits cannot rely on that knowledge persisting, because the provider has both the capacity and the incentive to change it.

This is not an incidental byproduct of product improvement. The empirical literature on interface design establishes that obstruction and friction are engineered features, deployed because they change user behavior in the provider's favor. In a pair of large experiments using representative samples of American consumers, Luguri and Strahilevitz found that users exposed to mild manipulative interface designs were more than twice as likely to sign up for a dubious service as a control group, and users exposed to aggressive designs were almost four times as likely.[2] They found that the designs most effective at steering consumers into choices they were likely to regret were hidden information, trick questions, and obstruction, the deliberate introduction of friction into a path the user wants to take.[3] And they found something more telling still: where these designs were used, the price of the service became immaterial to the consumer's decision. Decision architecture, not price, drove the outcome.[4] The authors observe that such designs are proliferating because providers' own proprietary testing has revealed them to be profit maximizing.[5] A crawl of roughly eleven thousand shopping websites confirmed that

2. Jamie Luguri & Lior Jacob Strahilevitz, *Shining a Light on Dark Patterns*, 13 J. Legal Analysis 43, 43–44 (2021).
3. *Id.* at 44.
4. *Id.*
5. *Id.*

manipulative interface patterns are widespread in commercial practice, not confined to outlier actors.[6] The continuous revision of a consumer interface is therefore not a neutral fact about software. It is an exercise of design power, and the friction it introduces is selected for its effect on the user.

B. The Contract Is Not the Interface, and the Documentation Is Evidence

A careful objection must be answered at the outset, because the argument fails if it is built on the wrong instrument. When a provider's help page says one thing and its application does another, the inconsistency is arresting, but the help page is not the contract. Neither is the interface. The binding instrument is the terms of service, the document the user is said to have accepted. A help article describing an advertising cap, a tooltip labeling a button, a support page explaining a reporting path, these are not contractual terms, and the argument of this article does not treat them as such. The provider does not promise, in its terms of service, that a button will remain in a fixed location.

What, then, does the inconsistency do? It is evidence, and it bears on three questions the contract analysis must answer. It bears on notice, because a provider whose own documentation cannot state its product consistently cannot plausibly claim that the user was on notice of the operative terms at any given moment. It bears on definiteness, because the inability of the drafter itself to describe the bargain consistently is direct evidence that there is no fixed bargain to describe. And it bears on unconscionability, because a set of terms the user cannot pin down, and that the provider itself does not hold steady, is the procedural hallmark of an unfair adhesive arrangement. The documentation inconsistency is not the legal defect. It is proof of the conditions under which the legal defects arise.

6. Arunesh Mathur et al., *Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites*, 3 Proc. ACM on Hum.-Comput. Interaction (CSCW) (2019).

C. Almost No One Reads, and the Provider Knows It

The contract analysis that follows unfolds against a settled empirical backdrop. The premise that a consumer reads the terms before accepting them is false, and it is known to be false by the parties who rely on it. Tracking the browsing behavior of more than forty-eight thousand visitors to ninety online software vendors, Bakos, Marotta-Wurgler, and Trossen found that only one or two of every thousand retail software shoppers accessed the end user license agreement at all, and that most of those who did spent too little time to have read more than a small portion of it.[7] The limiting factor was not the difficulty of finding the agreement; it was the cost of reading and comprehending it.[8] A separate study of the privacy policies and terms of service of social networking services, aptly titled to capture the phenomenon, found that the overwhelming majority of users ignore these documents entirely, treating the click as a formality rather than an act of reading.[9]

These findings matter to the argument in a specific way. If the bargain a consumer actually experiences is the interface, not the unread document, then the continuous revision of the interface is the continuous revision of the only terms the consumer ever engages. The provider cannot have it both ways. It cannot insist that the unread written terms are the contract for purposes of binding the user, while reserving to itself the power to change the experienced product at will and without notice. The next several Parts show why that combination does not survive ordinary contract doctrine.

III. Granting Assent Arguendo

This article makes a concession and builds on it. It assumes that the user validly assented to the provider's terms at the moment of formation. Where the user clicked *I accept*, assume the click

7. Yannis Bakos, Florencia Marotta-Wurgler & David R. Trossen, *Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts*, 43 J. Legal Stud. 1, 1 (2014).

8. *Id.*

9. Jonathan A. Obar & Anne Oeldorf-Hirsch, *The Biggest Lie on the Internet: Ignoring the Privacy Policies and Terms of Service Policies of Social Networking Services*, 23 Info. Commc'n & Soc'y 128 (2020).

carried its full legal effect. Where the user never logged in, assume that the user's continued use of the service manifested assent to terms presented through a browsewrap arrangement. Assume, in other words, everything the provider would need to establish that a contract formed.

The concession is deliberate, and it is strategic rather than merely cautious. There is a serious argument that assent of this kind is defective, that a clickwrap interface can be cognitively inaccessible so that the click does not manifest the assent it appears to manifest, and that a browsewrap theory imputes agreement through a channel that a user with a cognitive or developmental disability cannot satisfy. That argument is developed at length in separate work and is not rehearsed here. Importing it would not strengthen the present argument; it would change the subject. The present argument is more powerful precisely because it does not depend on the formation challenge. It accepts the contract as formed and shows that the provider still cannot hold the user to the moving target.

Granting assent also closes the provider's most natural rhetorical escape. Confronted with the objection that its product changes constantly, a provider's first move is to say that the user agreed, that acceptance of the terms included acceptance of the provider's reserved right to change them. Very well. Grant that the user agreed to the reserved right to amend. The question becomes whether a reserved right to amend can do the work the provider assigns it: whether it can convert an illusory promise into a binding one, supply notice of changes the user never saw, and render a continuously reflowing product definite. The remainder of this article argues that it cannot.

IV. The Illusory Promise

A contract requires consideration, and consideration requires that each party be bound to something. A promise that leaves the promisor free to perform or not, as it chooses, is illusory; it is not a promise at all, and it cannot serve as consideration. The reserved right to amend terms at any time, in any respect, effective immediately upon posting, is the paradigm of an illusory promise. A provider that may rewrite any obligation it has undertaken, at the moment it chooses, has undertaken no fixed obligation. Whatever it appears to promise, it has reserved the power to unpromise.

The point is settled in the online contracting context. In *Harris v. Blockbuster, Inc.*, the court confronted a terms of use provision under which the provider reserved the right to modify the terms at any time, with changes effective upon posting and binding on continued use.[10] The court held the agreement illusory and the arbitration provision it contained unenforceable, on the reasoning that a promise subject to unilateral modification at the promisor's whim binds the promisor to nothing.[11] The defect is structural. It does not turn on bad faith in any particular amendment; it turns on the reservation of unilateral power itself, which deprives the provider's promise of the mutuality that consideration requires.

The same reasoning controls where the reserved right to amend sits inside a browsewrap arrangement. In *In re Zappos.com, Inc.*, the provider's terms of use, presented through inconspicuous browsewrap, reserved the right to change the terms at any time without notice.[12] The court refused to enforce the arbitration clause, holding both that the user had not assented to the browsewrap terms and that the reserved right to change the terms at any time rendered the provider's promise illusory.[13] *Zappos* is instructive because it isolates the modification defect from the assent defect and finds each independently sufficient. Even a court prepared to assume assent, as this article assumes it, would still confront the illusoriness that the reserved right to amend produces on its own.

Apply this to the moving target. The reserved right to amend is the provider's claimed authority for the continuous revision of its product and terms. If that reservation renders the provider's promise illusory, then the provider has supplied no consideration for the obligations it seeks to enforce against the user, and the revised terms it would invoke were never validly part

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10. *Harris v. Blockbuster, Inc.*, 622 F. Supp. 2d 396 (N.D. Tex. 2009).

11. *Id.* at 399.

12. *In re Zappos.com, Inc.*, 893 F. Supp. 2d 1058 (D. Nev. 2012).

13. *Id.* at 1064 (no assent to inconspicuous browsewrap); *id.* at 1065–66 (reserved right to amend renders the arbitration clause illusory).

of a binding agreement. The clause the provider relies on to legitimize the moving target is the very clause that, under *Harris* and *Zappos*, dissolves the bargain.

V. Changes Without Notice Do Not Bind

Suppose a court were unwilling to declare the entire promise illusory and instead asked the narrower question whether a particular revised term binds the user. The answer is still adverse to the provider, because a party is not bound by a contractual modification of which it had no notice. The leading statement of the rule in the online context is *Douglas v. United States District Court ex rel. Talk America, Inc.*, where a service provider revised its customer contract, posting the new terms on its website, and later sought to enforce against a customer terms that had not existed when the customer first contracted.[14] The court held that the customer was not bound by the revised terms, reasoning that a party cannot unilaterally change the terms of a contract and that the revisions could not bind a customer who had no notice of them; a customer is not expected to monitor a website periodically for unannounced changes to the deal.[15]

The moving target delivers changes without notice as its ordinary mode of operation. When a provider relocates a control, renames a reporting path, or alters the behavior of its advertising interface, it does not present the user with the change and ask for assent. The change simply appears. If a relocated control reflects a corresponding change in the terms, the user has received no notice of that change, and under *Douglas* the user is not bound by it. If the relocated control does not reflect a change in the terms, then the provider's own conduct demonstrates the gap between the product the user experiences and the document the provider would enforce, which is the definiteness problem taken up next. Either way, the routine silent revision that characterizes the modern interface is, in contract terms, the delivery of changes without notice, and *Douglas* holds that such changes do not bind.

14. *Douglas v. U.S. Dist. Court ex rel. Talk Am., Inc.*, 495 F.3d 1062 (9th Cir. 2007).
15. *Id.* at 1066.

The reserved right to amend does not answer this. A clause stating that the provider may change the terms at any time is not itself notice of any particular change. *Douglas* did not hold that customers can be bound to unannounced revisions so long as the original contract warned that revisions might occur; it held the opposite, that the customer need not monitor for unannounced changes and is not bound by changes of which the customer lacks notice.[16] A standing announcement that the deal may change is not the same as notice that the deal has changed, and only the latter can bind.

VI. Definiteness and the Knowable Bargain

A contract must be reasonably definite. There must be a determinate set of terms for the parties' minds to meet upon, and a court must be able to ascertain what the parties agreed to in order to enforce it. The moving target strains this requirement to the point of failure. When the operative interface reflows continuously, when different users are served different variants at the same time, and when the provider's own documentation cannot describe the product consistently, there is no single, fixed, knowable bargain in force at a given moment. There is instead a shifting family of arrangements, varying across users and across weeks, that the drafter itself cannot state without contradiction.

The provider's documentation inconsistency is the proof. A drafter who genuinely held a definite set of terms could describe them consistently across its own help pages, tooltips, and support documentation. A drafter whose own materials say thirty seconds in one place and serve ninety seconds in operation has demonstrated, by its own hand, that there is no determinate term to be on notice of. This is not a quibble about customer support copy. It is evidence going to the core of contract formation: whether there was ever a determinate object of agreement. A bargain the drafter cannot describe consistently is a bargain the user cannot have assented to with the definiteness that enforcement requires, because there was no definite thing to assent to.

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16. *See id.*

Definiteness and notice reinforce one another here. The notice problem of Part V asks whether the user knew of a particular change. The definiteness problem asks whether there was a stable term to know. Where the answer to the second is no, the first becomes unanswerable, because one cannot have notice of terms that do not hold still long enough to be identified. The reserved right to amend aggravates rather than cures this. A clause authorizing perpetual change is a clause guaranteeing indefiniteness; it converts the agreement, by its own terms, into a permanently provisional one.

VII. Unconscionability and the Differential Burden

A. The Moving Target Is Unconscionable

Unconscionability has a procedural dimension, concerned with the manner in which the agreement was reached, and a substantive dimension, concerned with whether its terms are unreasonably one-sided. The moving target offends both. Procedurally, it is an adhesive arrangement whose terms the user cannot pin down, presented through interfaces engineered, as Part II showed, to introduce friction where the user's interest and the provider's interest diverge. Substantively, the reserved right to amend allocates the entire power to change the bargain to one party, binds the other to changes it never sees, and leaves the user no corresponding ability to hold the provider to any fixed commitment. Courts have not hesitated to find online consumer terms unconscionable on facts of this character. In *Comb v. PayPal, Inc.*, the court held provisions of an online user agreement unconscionable, emphasizing the one-sided allocation of rights and the adhesive manner of presentation to consumers who had no meaningful opportunity to negotiate.[17] The continuous, unannounced revision of a consumer product, governed by a reserved right to amend that binds the user to changes it never sees, is one-sidedness of the same kind, compounded by the impossibility of identifying the terms in force at any moment.

17. *Comb v. PayPal, Inc.*, 218 F. Supp. 2d 1165 (N.D. Cal. 2002).

B. The Burden Falls Unequally

The cost the moving target imposes is a cognitive cost, and cognitive costs are not distributed evenly. To use a continuously changing interface safely, a user must repeatedly relearn where the operative controls are, detect that a path has changed, and rebuild the habit that the change has disrupted. That work draws on attention, working memory, and executive function. For most users it is an irritation. For users whose disabilities impair those very capacities, it is a barrier, and the same friction that mildly inconveniences a typical user can exclude a disabled user from the control altogether.

The empirical record supports treating this differential as real rather than speculative. Luguri and Strahilevitz found that less educated participants were significantly more susceptible to milder manipulative designs than their more educated counterparts.[18] The mechanism they identify, the exploitation of limited attention and the cost of careful processing, operates with greater force on users whose conditions directly reduce available attention and raise the cost of processing. A user with a disorder of attention or executive function does not merely find the relearning tiresome; the relearning consumes a resource the disability has already depleted. The non-readership data point the same way. If almost no one reads the written terms, and the bargain a user actually engages is the interface, then a user who cannot keep pace with a continuously changing interface is a user who cannot engage the bargain on equal footing.[19] The moving target thus does not impose a uniform inconvenience that happens to be unfair; it imposes a graduated burden that is heaviest on those least able to bear it, which is the substantive core of an unconscionability objection and, independently, the kind of differential exclusion that consumer-protection and disability-access principles exist to address.

18. Luguri & Strahilevitz, *supra* note 2, at 44.

19. Bakos, Marotta-Wurgler & Trossen, *supra* note 7, at 1.

VIII. The Strongest Contrary Authority

The provider's best response draws on a real and substantial line of authority enforcing online terms. The cases must be confronted directly, because they are frequently the first thing a provider cites, and because, properly read, they govern a question this article has already conceded.

The line begins with the recognition that online terms can be enforceable when the user has adequate notice of them and manifests assent. In *Meyer v. Uber Technologies, Inc.*, the Second Circuit enforced terms presented through a sign-in-wrap interface, holding that a reasonably prudent user was on notice of the terms because the interface was uncluttered and the notice of terms was conspicuous and temporally connected to the user's assent.[20] *Meyer* stands at one pole of a spectrum. At the other pole sit cases refusing enforcement where notice was inadequate. In *Specht v. Netscape Communications Corp.*, the Second Circuit declined to enforce terms presented below a download button where a user would not necessarily have seen them before acting, holding that a reasonably prudent user was not on inquiry notice and had not assented.[21] In *Nguyen v. Barnes & Noble Inc.*, the Ninth Circuit held that the mere proximity of a terms hyperlink to a button, without more, does not put a user on constructive notice of browsewrap terms.[22] In *Sgouros v. TransUnion Corp.*, the Seventh Circuit refused to enforce terms where the interface did not require the user to view them and a button's placement was misleading as to what the click signified.[23] And in *Berkson v. Gogo LLC*, the court catalogued the spectrum of wrap arrangements and made explicit that enforceability turns on the adequacy of notice and the manifestation of assent.[24]

What unites this line is its subject. Every one of these cases asks the formation question: whether the user had adequate notice of the terms, and manifested assent to them, at the moment

20. *Meyer v. Uber Techs., Inc.*, 868 F.3d 66 (2d Cir. 2017).
21. *Specht v. Netscape Commc'ns Corp.*, 306 F.3d 17 (2d Cir. 2002).
22. *Nguyen v. Barnes & Noble Inc.*, 763 F.3d 1171 (9th Cir. 2014).
23. *Sgouros v. TransUnion Corp.*, 817 F.3d 1029 (7th Cir. 2016).
24. *Berkson v. Gogo LLC*, 97 F. Supp. 3d 359 (E.D.N.Y. 2015).

the contract was made. That is the question this article concedes. It assumes, with *Meyer*, that notice at formation was adequate and assent was given. The concession does not touch the moving-target defects, because those defects arise after formation and from a different source. *Meyer* holds that a conspicuous interface can put a user on notice of the terms presented at sign-in. It does not hold that a reserved right to amend is a valid promise, that it cures illusoriness, or that it supplies notice of changes made weeks later. A user perfectly on notice of the terms at formation, and bound by them, is still not on notice of an unannounced revision under *Douglas*, still confronts an illusory promise under *Harris* and *Zappos*, and still faces a bargain rendered indefinite by perpetual change. The enforcement line answers whether a contract formed. This article assumes it did and asks what happens to that contract as the product beneath it will not stop moving.

IX. A Modest Rule

The doctrines invoked here are not novel, and the remedy they imply is correspondingly modest. The proposition is simply that a provider may not use a reserved right to amend as a license for perpetual, silent, unilateral revision of a consumer bargain. Three constraints follow, each grounded in authority already discussed. A reserved right to amend cannot render the provider's promise binding if it leaves the provider free to modify any obligation at will; mutuality requires that some core of the provider's commitment be fixed. A modification of the terms does not bind a user who received no notice of that particular change; a standing warning that change may occur is not notice that change has occurred. And a material change to the terms, as distinct from a trivial one, should require conspicuous notice and, for genuinely material terms, a fresh manifestation of assent before it binds, rather than taking effect through silent posting and imputed acquiescence.

These constraints ask little that the law does not already supply. They restate mutuality, the notice rule of *Douglas*, and the definiteness and unconscionability limits that govern adhesive consumer terms. Their effect is to deny the provider the one thing the moving target depends on, the power to bind a user to terms the user cannot identify and changes the user never saw. A provider that wishes to change its product remains free to do so. It must simply tell the user when the deal has changed, and obtain agreement when the change is material, rather than treating the reserved right to amend as a standing authorization to move the target whenever it likes.

X. Conclusion

The provider's opening position is that acceptance binds. This article has granted it. The difficulty is that the position answers a different question than the one a dispute actually presents. A user can accept, and be bound by what was accepted, and still be unable to say what that was, because the provider reserved the right to change it and then exercised that right continuously, silently, and unequally across users. Granting acceptance does not rescue such a bargain.
It exposes the defects that acceptance cannot reach. A promise the provider may revoke at will is illusory. A change the user never saw does not bind. A product that will not hold still is not a definite agreement. And a burden that falls hardest on those least able to carry it is unconscionable. The simple question the user is entitled to ask, accepted what, has no answer the provider can give, because the thing accepted is a moving target, and a moving target is not a contract a user can be held to.