



A Critique of Digital Consent and Freedom of Contract in Clickwrap Agreements

Kritik Terhadap Persetujuan Digital dan Kebebasan Berkontrak pada Klausula Baku Praktik Klik-Setuju

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Abstract

This study critically examines the complex intersection of debtor default, personal data protection, and algorithmic governance within P2P lending platforms operating in Indonesia. Classical contract law under the Civil Code consistently fails to accommodate the structural asymmetries of digital agreements, wherein personal data is illegally weaponized as a de facto guarantee during default debt collection. Employing a normative legal methodology with both statutory and conceptual approaches, this paper systematically deconstructs the persistent illusion of preventive and repressive consumer protection mechanisms. The findings reveal that digital consent is systematically manufactured through predatory dark patterns, while existing dispute resolution frameworks remain slow against real time, irreversible social character assassination. Consequently, this study introduces the novel paradigm of integrated strict liability. This prescriptive model dictates that any algorithmic privacy violation by fintech platforms automatically forfeits their civil debt recovery rights, rendering the underlying electronic loan agreement null and void to definitively restore equity.

Abstrak

Penelitian ini mengkaji secara kritis persinggungan kompleks antara wanprestasi debitur, perlindungan data pribadi, dan tata kelola algoritmik pada platform pinjaman P2P yang beroperasi di Indonesia. Hukum perjanjian klasik dalam KUHPerdara secara konsisten gagal mengakomodasi asimetri struktural dari kontrak elektronik, di mana data pribadi dijadikan senjata ilegal sebagai jaminan de facto selama penagihan utang macet. Menggunakan metodologi hukum normatif melalui pendekatan perundang-undangan dan konseptual, artikel ini secara sistematis mendekonstruksi ilusi persisten dari mekanisme perlindungan konsumen preventif dan represif. Hasil temuan mengungkapkan bahwa persetujuan digital diproduksi secara sistematis melalui pola manipulasi gelap, sementara kerangka penyelesaian sengketa yang ada tetap lambat terhadap pembunuhan karakter sosial yang ireversibel dan seketika. Oleh karena itu, penelitian ini memperkenalkan paradigma baru berupa tanggung jawab mutlak terintegrasi. Model preskriptif ini menetapkan bahwa setiap pelanggaran privasi algoritmik oleh platform teknologi finansial secara otomatis menggugurkan hak penagihan perdata mereka, menjadikan perjanjian pinjaman elektronik batal demi hukum untuk memulihkan keadilan asimetris.



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A. INTRODUCTION

1. Background

Contemporary discourse within digital contract law evinces an escalating tension between classical civil doctrine and the automated architecture of electronic agreements. Recent jurisprudence and legal doctrine have begun to spotlight the fundamental vulnerabilities inherent within the "click-wrap" agreement model, which frequently precipitates the exploitation of volition as a consequence of algorithmic undue influence. Within this landscape, the normative expectation of autonomous consent collides frontally with the pragmatic efficiency underlying the massification of electronic contracts. When automated systems unilaterally prioritize a frictionless experience over the comprehensive protection of privacy rights, data protection obligations are systematically nullified by algorithmic contract execution. This condition engenders a jurisdictional anomaly wherein the foundational doctrines of autonomy and good faith are rendered paralyzed when tested against the scale, velocity, and opacity of the digital ecosystem.

The evolution of the digital economy has engendered a pattern of asymmetrical legal relations that radically deviates from the anatomy of conventional agreements. Transactions facilitated through marketplaces, digital financial services, transportation applications, and even cloud computing are almost invariably delegated via consent to terms and conditions that are dictated absolutely by electronic system operators.¹ Users are confronted with a stark binary proposition: to execute a click of assent or be absolutely precluded from accessing the service. Superficially, this algorithmic action is construed as the formal *acceptance* of an offer. Substantively, however, this postulate harbors a profound theoretical defect. The fundamental inquiry is not whether consent has been ostensibly manifested, but rather whether consumers within the digital sphere genuinely possess the cognitive liberty to read, process, and negotiate the binding legal derivatives imposed upon them.

The phenomenon of these click-based agreements has empirically deconstructed the very meaning of consensus itself. Within classical legal architecture, an agreement is conceptualized as a *meeting of minds* engendered through egalitarian discourse and

¹ Afrizal Mukti Wibowo et al., *Perkembangan Hukum Keperdataan Di Era Digital* (Jakarta: Sada Kurnia Pustaka, 2024). Hal, 45.

symmetrical negotiation.² Conversely, within the click-wrap regime, consensus is reduced to a series of mechanical actions psychologically engineered through the user interface (UI/UX).³ The choices proffered by the algorithm do not constitute a genuine preference among various contractual alternatives, but rather a form of subtle repression wherein refusal equates to socio-economic exclusion from digital services. Consequently, the freedom of contract is degraded from the liberty to "formulate the terms of the agreement" into a merely illusory freedom to "submit to a contract" that has been unilaterally drafted.

Standard clauses inherently constitute an antiquated instrument, a legacy of the industrialization era historically employed to minimize transaction costs.⁴ However, the capitalization of standard clauses within the digital sphere operates at a level of intensity and toxicity that profoundly surpasses its conventional variants. Terms and conditions can be unilaterally modified by the system in real-time, obscured behind an infinite scroll, or camouflaged through a technical lexicon that exploits the cognitive biases of lay consumers. Even more problematically, contemporary digital contracts have metamorphosed into extractive instruments; they dictate the harvesting of personal data, absolute exemptions from liability, and subjugation to asymmetrical arbitration.⁵ Consequently, the discourse surrounding digital standard clauses is no longer merely a matter of civil breach of contract; rather, it constitutes a direct threat to the constitutional privacy and data sovereignty of citizens.

The exigency of this deconstruction becomes increasingly imperative amidst the ambivalence of Indonesian positive law. On the one hand, the regulatory regime of the Electronic Information and Transactions Law (UU ITE) legitimizes the validity of electronic contracts as a direct derivation of the freedom of contract.⁶ On the other hand, protective instruments such as the Consumer Protection Law (UUPK) and the Personal Data Protection Law (UU PDP) mandate that data processing and the transfer of liability

² Sidik Salim, *Hukum Kontrak: Teori Dan Teknik Penyusunan Kontrak* (Jakarta: Sinar Grafika, 2021). Hal, 88.

³ Maulia Nurfadillah, "Hukum Kontrak Di Era Digital: Adaptasi Teknik Pembuatan Kontrak Dalam Transaksi Online," *Jurnal Ilmiah Nusantara (JINU)* 2, no. 1 (2025): 185–93, <https://ejurnal.kampusakademik.co.id/index.php/jinu/article/view/3185>.

⁴ Rahman, Sunaryo Sunaryo, and Ahmad Zazili, "Perlindungan Hukum Bagi Konsumen Pada Perjanjian Baku Shopee Pinjam," *AKADEMIK: Jurnal Mahasiswa Humanis* 6, no. 2 (May 1, 2026): 592–602, <https://doi.org/10.37481/jmh.v6i2.1954>.

⁵ Rohendi, *Hukum Bisnis Digital Regulasi, Etika, Dan Perlindungan Di Era Ekonomi Digital* (Bandung: PT Kimhsafi Alung Cipta, 2015). Hal, 112.

⁶ I Nyoman Triana Eka Putra and I Made Dedy Priyanto, "Keabsahan Perjanjian Elektronik Dalam Perjanjian Jual Beli Ditinjau Dari Perspektif Hukum Perdata," *Jurnal Media Akademik* 3, no. 9 (2025): 1–18, <https://jurnal.mediaakademik.com/index.php/jma/article/view/2859>.

be predicated upon consent that is transparent, specific, and devoid of any defects in volition. The nexus of friction between these legal regimes necessitates a systematic reconstruction to preclude the dogmatic compartmentalization of contract law, consumer protection, and technology governance.

Unfortunately, prior academic discourse concerning click-wrap agreements generally remains confined to a narrow positivistic approach. The majority of the literature, as represented in the studies by Widyawati et al. as well as Putra and Priyanto, endeavors to legitimize digital contracts solely by mechanically conforming them to the validity requirements for an agreement stipulated in Article 1320 of the Indonesian Civil Code.^{7,8} Meanwhile, consumer protection-oriented studies by Sumual and Muhammad, as well as Martinelli et al., have begun to delineate user vulnerabilities; nevertheless, the proffered recommendations remain fixated on antiquated prescriptions: legal education and multi-layered informational transparency.^{9,10} The fundamental blind spot of all preceding literature lies in its failure to dissect the "weaponry" underlying the digital architecture itself. Imposing solutions in the guise of "more transparent and multi-layered" informational provision for consumers constitutes a mere illusion of choice. The rational consumer has long perished within the digital sphere, paralyzed by algorithmic interface manipulations (*dark patterns*) that exploit human psychological vulnerabilities to instantaneously generate manufactured consent.¹¹

Diverging from preceding scholarship, this article proffers a novel contribution by deconstructing the doctrine of freedom of contract through the lens of algorithmic governance. This study advances the thesis that within the *click-wrap* agreement ecosystem, the principles of propriety and good faith are no longer sufficient when merely "codified" within regulatory texts; rather, they must be technically embedded into the code architecture of digital operators (*compliance by design*). Absolute freedom of

⁷ Agnes Maria Janni Widyawati, Mig Irianto Legowo, and Heri Purnomo, "Keabsahan Perjanjian Digital Berbasis Klik (Clickwrap Agreement) Dalam Perspektif Hukum Perdata Indonesia," *Jurnal Kolaboratif Sains* 8, no. 9 (2025): 5849–58, <https://jurnal.unismuhpalu.ac.id/index.php/JKS/article/view/8668>.

⁸ Putra and Priyanto, "Keabsahan Perjanjian Elektronik Dalam Perjanjian Jual Beli Ditinjau Dari Perspektif Hukum Perdata."

⁹ Yonisha Sumual and Danang Wahyu Muhammad, "Kontruksi Hukum Dalam Perjanjian Jual Beli Online," *Media of Law and Sharia* 3, no. 2 (April 7, 2022): 142–54, <https://doi.org/10.18196/mls.v3i2.14333>.

¹⁰ Imelda Martinelli et al., "Penggunaan Click-Wrap Agreement Pada E-Commerce: Tinjauan Terhadap Keabsahannya Sebagai Bentuk Perjanjian Elektronik," *Jurnal Supremasi* 14, no. 1 (March 24, 2024): 73–86, <https://doi.org/10.35457/supremasi.v14i1.2797>.

¹¹ Melanie Smith, "Staring into the Abyss: A Crisis of the Rule of Law in the EU," *European Law Journal* 25, no. 6 (November 17, 2019): 561–76, <https://doi.org/10.1111/eulj.12345>.

contract must be construed as a liberty safeguarded by state infrastructure, wherein the standardization of efficiency must not be permitted to legitimize mass subjugation.

Predicated upon this exigency, this article will demonstrate that the freedom of contract within the era of the algorithmic society must be reconstructed from a mere procedural liberty into substantive justice. As a manifestation of *ius constituendum* (prospective law) prescriptions, this research aims to propose a framework of "algorithmic responsibility," wherein state regulations technically mandate digital platforms to autonomously reject exploitative standard clauses. In the event of a violation, such exploitative clauses would not merely be subject to litigation, but would be automatically rendered null and void by a Regulatory Technology (RegTech) oversight system, thereby restoring the harmonization between consumer protection and personal data sovereignty in Indonesia.

2. Research Questions

Predicated upon the preceding background exposition, the principal dilemma surrounding digital standard contracts no longer pertains to the legal recognition of their electronic medium, but rather resides in the quality of the user's substantive consent, which is frequently circumscribed by interface architecture. Consequently, this study aims to systematically elucidate and address two primary research questions.

First, how are the doctrines of freedom of contract and good faith interpreted within digital contracts when users are confronted with mechanical consent (*click-wrap agreements*) entirely devoid of negotiatory space?

Second, how must this freedom of contract be reconstructed to ensure that digital consent transcends a merely formal dimension, thereby fulfilling the principles of contractual equilibrium and substantive justice for the involved parties?

3. Research Methods

This study constitutes doctrinal legal research focused on deconstructing the principle of freedom of contract within the architecture of the digital ecosystem. Rather than reducing the analysis merely to substantiating the formal validity of electronic contracts, this research operationalizes a hybrid methodology—integrating a statutory approach and a conceptual approach—through the lens of techno-legal governance. The application of this hybrid approach is essential, given that the complexities of volitional manipulation (such as exploitation via *click-wrap* agreements) cannot be fully

deconstructed through a purely dogmatic legal optic; rather, it necessitates a rigorous dissection of code design and user-machine interactions.¹²

The corpus of primary legal materials analyzed encompasses the Indonesian Civil Code, Law Number 8 of 1999 concerning Consumer Protection, regulations pertaining to Electronic Information and Transactions, as well as Law Number 27 of 2022 concerning Personal Data Protection. This corpus of normative regulations is not merely reiterated in a positivistic manner; rather, its viability and resilience are critically tested when confronted with the digital interface architecture that underpins the automation of consensus. Meanwhile, secondary legal materials are rigorously curated from global jurisprudence and highly reputable journal literature that dissect the anatomy of adhesion contracts, the regulation of smart contracts, algorithmic governance, and the manipulation of digital consent (*dark patterns*). This constellation of secondary literature is utilized to ensure that the analysis is not isolated within a static bubble of national positive law, but is instead calibrated with the contemporary discourse of digital *lex mercatoria*.¹³

The analysis of legal materials is executed prescriptively through the instrumentation of systematic, teleological, and futuristic interpretations. Specifically, systematic interpretation is operationalized to trace the structural throughlines and identify the clash of norms among classical civil regimes, consumer law, and the safeguarding of privacy sovereignty. In turn, teleological interpretation is directed toward dismantling the fundamental power asymmetries meticulously obscured beneath the automation of standard clauses. This endeavors to validate the postulate that procedural justice within cyberspace has been effectively subverted by corporate algorithmic domination.¹⁴ Through this analytical framework, at the conclusive stage, this research transcends mere deductive justification; instead, it formulates prescriptions of *ius constituendum* that imperatively mandate the integration of structural equilibrium

¹² Mireille Hildebrandt, "Intricate Entanglements of Law and Technology," in *Smart Technologies and the End(s) of Law* (Edward Elgar Publishing, 2015), 159–85, <https://doi.org/10.4337/9781849808774.00016>.

¹³ Tantangan metodologis dan konseptual dalam menilai ekosistem teknologi dibahas secara mendalam dalam Roger Brownsword, "Five Conversations and New Directions for Law and Technology," *Law, Innovation and Technology* 17, no. 1 (January 2, 2025): 37–57, <https://doi.org/10.1080/17579961.2025.2469342>.

¹⁴ Ettore Battelli, "Smart Contracts in the Financial Sector: Fintech's Prospects and Risks," in *The Transformation of Private Law – Principles of Contract and Tort as European and International Law*, 2024, 995–1010, https://doi.org/10.1007/978-3-031-28497-7_45.

principles directly into the source code architecture of platform operators—a paradigm recognized within the domain of technology law as *compliance by design*.

B. DISCUSSION

1. The Construction of the Problem of Freedom of Contract: From Private Autonomy to Algorithmic Repression

Freedom of contract constitutes a fundamental dogma within civil contract law, granting an autonomous space for parties to determine the architecture of their legal relations. Within the framework of the Indonesian Civil Code (*KUHPerdata*), this autonomy is codified through Article 1338 paragraph (1), which postulates that the binding force of a contract is tantamount to statutory law. However, this freedom is never absolute. It is limitatively circumscribed by the requisite elements of validity set forth in Article 1320 of the Civil Code. Consensus, functioning as the epicenter of contract formation, is classically conceptualized as a *meeting of minds*. Nevertheless, modern legal discourse acknowledges that a formal convergence of wills does not necessarily represent authentic free volition; the doctrine of defective will (*wilsgebrek*) has consequently evolved to encompass undue influence and economic domination.¹⁵

Standard clauses introduce the initial disruption to this pure consensus. Macroeconomically, contract standardization curtails transaction costs. Juridically, however, it precipitates a severe power asymmetry, as one party monopolizes the contractual design, thereby relegating the counterparty to a mere passive recipient.¹⁶ The state's normative response to this is manifested within the Consumer Protection Law, which strictly prohibits exploitative clauses (such as the absolute transfer of liability) in order to restore contractual justice.¹⁷ The state's normative response to this is manifested within the Consumer Protection Law, which strictly prohibits exploitative clauses (such as the absolute transfer of liability) in order to restore contractual justice.

Furthermore, the doctrine of pre-contractual good faith (Article 1338 paragraph 3 of the Civil Code) initially mandated transparency to ensure that business actors

¹⁵ Nadia Putri Salsa Bella and Yunanto Yunanto, "Tinjauan Perjanjian Dalam Hukum Bisnis: Antara Kebebasan Berkontrak Dan Kepastian Hukum," *Jurnal Ilmu Hukum, Humaniora Dan Politik* 6, no. 1 (October 30, 2025): 569–74, <https://doi.org/10.38035/jihhp.v6i1.6397>.

¹⁶ Ade Puma Sari et al., "Kajian Prinsip Keseimbangan Hak Dan Kewajiban Dalam Kontrak Baku," *Jurnal Riset Multidisiplin Edukasi* 2, no. 1 (January 14, 2025): 160–69, <https://doi.org/10.71282/jurmie.v2i1.27>.

¹⁷ Komang Pebri Gunawan, Si Ngurah Ardhya, and I Gusti Ayu Apsari Hadi, "Perlindungan Konsumen Terhadap Klausula Baku Dalam Perjanjian," *Jurnal Pacta Sunt Servanda* 5, no. 2 (2024): 130–141, <https://ejournal2.undiksha.ac.id/index.php/JPSS/article/view/6960>.

refrained from concealing information.¹⁸ However, in the digital era, this definition of good faith suffers from theoretical paralysis. "Concealing information" is now executed in a highly legal and transparent manner: by amassing tens of thousands of words within Terms and Conditions (T&C) documents.¹⁹ Good faith can no longer be measured by the mere availability of text, but rather by interface design.

The construction of the problem concerning freedom of contract can be analytically mapped across three layers. The formal layer examines the fulfillment of contractual validity requirements. The relational layer investigates the equilibrium of the parties' bargaining power. The substantive layer dissects the degree of propriety and transparency within the contents of the agreement itself. The equilibrium between legal certainty and justice across these three layers constitutes the primary arena for contemporary contract law reform.

Furthermore, the discourse surrounding this substantive freedom confronts its most formidable test under the shadow of state governance of emerging technologies. As transactional infrastructures shift toward artificial intelligence (AI) automation and decentralized ecosystems, relational asymmetry is no longer exclusively economic in nature, but rather architectural.²⁰ Platform operators do not merely control the contractual design; they also monopolize the code infrastructure (*source code*) that dictates how, when, and where such consent is extracted.

The failure of classical civil law to respond to these anomalies necessitates the deconstruction of the parameters of contractual validity. Consensus forged through interface interference paralyzes the doctrine of pre-contractual good faith, given that legal subjects no longer interact with human entities, but rather with *black-box algorithms* programmed absolutely to prioritize business efficiency over distributive justice. This paradigm shift from classical contracts to algorithmic contracts can be

¹⁸ Ery Agus Priyono, "Peranan Asas Itikad Baik Dalam Kontrak Baku (Upaya Menjaga Keseimbangan Bagi Para Pihak)," *Diponegoro Private Law Review* 1, no. 1 (2017): 13–22, <https://ejournal2.undip.ac.id/index.php/dplr/article/view/1934>.

¹⁹ Keterbatasan kognitif manusia dalam menghadapi tumpukan informasi dibahas secara empiris dalam Yannis Bakos, Florencia Marotta-Wurgler, and David R. Trossen, "Does Anyone Read the Fine Print? Consumer Attention to Standard-Form Contracts," *The Journal of Legal Studies* 43, no. 1 (January 2014): 1–35, <https://doi.org/10.1086/674424>.

²⁰ Jonas Tallberg et al., "The Global Governance of Artificial Intelligence: Next Steps for Empirical and Normative Research," *International Studies Review* 25, no. 3 (June 23, 2023), <https://doi.org/10.1093/isr/viad040>.

systematically mapped to articulate the exigency of state intervention, as illustrated in Table 1.

Table 1. A Comparative Deconstruction of the Freedom of Contract Paradigm: Classical vs. Algorithmic

Analytical Parameter	Classical Paradigm (Civil Code)	Algorithmic Paradigm (Digital Ecosystem)	Legal Reconstruction (<i>Ius Constituendum</i>)
Manifestation of Consensus	<i>Meeting of minds</i> via negotiation.	One-directional mechanical action (<i>click-to-agree</i>) engineered by the system.	Consent must be evaluated based on interface neutrality.
Form of Asymmetry	Economic disparity and unequal bargaining power.	Computational disparity and algorithmic opacity (<i>black-box algorithms</i>).	The state's obligation to conduct technical algorithmic auditing of the platform's code.
Indicator of Good Faith	Textual transparency and absence of deceptive intent.	Transparent text as weaponized cognitive exploitation (information overload).	<i>Compliance by Design</i> : The system is mandated to reject exploitative clauses by default.

The crucial questions emerging from the preceding tabular mapping demonstrate that absolute freedom of contract must be construed as a liberty that is simultaneously procedural and substantive. Procedurally, this signifies that the contract formation process is not dictated by visual layout manipulation, whereas substantively, it mandates that the contents of the contract do not infringe upon fundamental digital rights.²¹

Consequently, the construction of freedom of contract must be conceptualized as a dynamic principle, rather than a static justification for commercial domination. Within asymmetric digital relations, the freedom of contract actively demands a radical correction through consumer protection integrated with the oversight of technological design. This paradigm serves as the essential point of departure for dissecting *click-wrap agreements*—which theoretically constitute the darkest manifestation of standard contracts—wherein the power of market oligopolies and technological repression are amalgamated into a singular consent button that is practically impossible to decline.

²¹ Philipp Hacker, "Manipulation by Algorithms. Exploring the Triangle of Unfair Commercial Practice, Data Protection, and Privacy Law," *European Law Journal* 29, no. 1-2 (January 9, 2023): 142-75, <https://doi.org/10.1111/eulj.12389>.

2. Critique and Reconstruction of Freedom of Contract within Digital Click-Wrap Agreements

Digital contracts based on *click-wrap* agreements constitute a palpable manifestation of the dominance of standard clauses within the cyber ecosystem. Users are conditioned to click the "agree" button as an absolute justification for the acceptance of terms and conditions. This mechanical convenience engenders a juridical anomaly wherein the motor action of "clicking" is equated with free and autonomous cognitive consent. The most conspicuous phenomenon is the complete absence of consumer readership regarding contractual documents. Users execute consent solely to eliminate barriers to service access (*friction*)—a psychological inclination exploited by interface design through the prominent placement of consent buttons, the isolation of document links, and the obfuscation of convoluted legal text.²² Within such an ecology, digital consent is reduced to a hollow administrative ritual; it formally validates acceptance, yet definitively fails to manifest a considered, substantive will.²³

Conversely, the most profound disruption engendered by *click-wrap agreements* materializes at their intersection with data sovereignty. Contemporary digital contracts no longer merely govern rights pertaining to commercial services; rather, they have morphed into hybrid instruments that effectively hold user privacy hostage. Consent for data processing (situated within a human rights regime) is frequently camouflaged and conflated with general terms of service (situated within a commercial regime).²⁴ However, the Personal Data Protection Law imperatively mandates consent that is separate, specific, and freely given. This coercive amalgamation (*bundled consent*) renders the quality of freedom of contract not merely problematic, but structurally defective.

For years, jurisprudence and conventional legal studies have responded to this asymmetry through the *Notice-and-Choice* paradigm. This paradigm posits that the dominance of standard clauses can be neutralized through textual transparency and

²² Manipulasi kognitif antarmuka ini dikenal sebagai *dark patterns*. Lihat analisis komprehensif dalam Jamie Luguri and Lior Jacob Strahilevitz, "Shining a Light on Dark Patterns," *Journal of Legal Analysis* 13, no. 1 (March 23, 2021): 43–109, <https://doi.org/10.1093/jla/laaa006>.

²³ Widyawati, Legowo, and Purnomo, "Keabsahan Perjanjian Digital Berbasis Klik (Clickwrap Agreement) Dalam Perspektif Hukum Perdata Indonesia."

²⁴ Glory Sylviana et al., "Perlindungan Hukum Data Pengguna E-Wallet Atas Kebocoran Data Yang Disalahgunakan Oleh Pinjaman Online," *Journal Evidence Of Law* 3, no. 3 (September 13, 2024): 340–53, <https://doi.org/10.59066/jel.v3i3.765>.

layered consent. However, within contemporary digital architecture, this solution has proven obsolete. Relying upon *layered consent* amidst manipulative interfaces merely reproduces an illusion of freedom (*illusion of choice*), which paradoxically burdens the vulnerable party with an insurmountable deluge of information that defies rationalization. As critiqued by Waldman, textual transparency within the digital realm is dead; it has been weaponized by technology corporations as a shield of legality to perpetually extract data.²⁵

Therefore, the reconstruction of freedom of contract can no longer be predicated upon consumer literacy and reading comprehension. Digital contract law must imperatively transform toward the doctrine of "Compliance by Design".²⁶ In this progressive paradigm, substantive justice is not offloaded onto the user as a burden, but is instead technically encoded into the standard technological architecture. Operators are mandated to embed the principle of good faith directly into the application's layout (UI/UX) and its algorithmic code (*source code*). The system must be configured by default to reject data mining that is non-essential to the primary transaction, without compelling the consumer to manually navigate opt-out clauses.

Furthermore, the computational asymmetry exercised by corporations can no longer be countered through classical administrative legal instruments. The approach of *ex-post* manual oversight by consumer protection authorities, which relies on victim reporting or clause-by-clause analysis, is highly irrelevant in the cloud computing era. The state must respond to algorithmic technology by employing equivalent oversight technology. This transformation in governance necessitates the state's utilization of Regulatory Technology (RegTech) instruments.²⁷ Supervisory authorities (such as the Financial Services Authority/OJK and the Data Protection Commission) must deploy artificial intelligence-based automated algorithmic auditing capable of scanning and freezing exploitative clauses (such as the absolute transfer of liability or the extraction of device contacts) directly from the operator's Application Programming Interface (API) in

²⁵ Ari Ezra Waldman, "Privacy, Practice, and Performance," *California Law Review* 110, no. 4 (2022): 1221–80, <https://www.californialawreview.org/print/privacy-practice-and-performance>.

²⁶ Fathya Aprilianti and Amoury Adi Sudiro, "Keseimbangan Para Pihak Dalam Kontrak Elektronik (E-Contract)," *Jurnal Hukum Positum* 8, no. 2 (January 7, 2024): 276–98, <https://doi.org/10.35706/positum.v8i2.10898>.

²⁷ Nofie Iman, "The Rise and Rise of Financial Technology: The Good, the Bad, and the Verdict," ed. Albert W. K. Tan, *Cogent Business & Management* 7, no. 1 (January 1, 2020), <https://doi.org/10.1080/23311975.2020.1725309>.

real-time.²⁸ The fundamental failure of the traditional consent model and the urgency of transitioning toward this algorithmic governance are holistically mapped in Table 2.

Table 2. The Paradigm Shift of Digital Consent: From *Notice-and-Choice* to *Compliance-by-Design*

Dimension of Digital Contracts	Obsolete Paradigm (Notice-and-Choice)	New Paradigm (Compliance-by-Design & RegTech)
Focus of Protection	Transparent availability of clause text.	Interface neutrality.
Consent Mechanism	<i>Layered consent</i> and checkboxes.	Automatic restriction of rights by the system (<i>default privacy</i>).
Oversight Method	<i>Ex-post</i> manual curation by institutions/courts.	<i>Real-time automated auditing</i> using AI.
Burden of Compliance	Consumers are required to read and rationalize tens of thousands of words.	Operators are obligated to secure code architecture from <i>dark patterns</i> .

Essentially, the issue of *click-wrap agreements* demonstrates that civil contract law must migrate from a document paradigm toward a contractual experience paradigm. Legal subjects no longer interact with paper, but rather with computational architecture—ranging from button colors and warning designs to engineered default options—which neurobiologically influences decision-making. If the interface design is engineered to camouflage exploitative clauses, then the freedom of contract merely becomes an illusory dogma. Conversely, if legal compliance is encrypted into the algorithmic code, technology fundamentally becomes an instrument of liberation. Ultimately, freedom of contract in the algorithmic era is not dead; rather, it demands a radical redefinition wherein the moral propriety of a contract can no longer be merely written, but must be programmed *by design*.²⁹

C. CONCLUSION

In the architecture of digital contracts, the construct of freedom of contract and the principle of good faith have been distorted into algorithmic repression, wherein mechanical consent via *click-wrap agreements* reduces private autonomy to a mere

²⁸ Dewa Kadek Kevin Patria and Abdul Rokhim, “Klausula Eksonerasi Dalam E-Commerce: Antara Kebebasan Berkontrak Dan Penyalahgunaan Keadaan,” *JURNAL USM LAW REVIEW* 8, no. 3 (October 28, 2025): 1743–57, <https://doi.org/10.26623/julr.v8i3.12776>.

²⁹ Edrick Edwardina Effendy and Gina Hanifah, “Keabsahan Perjanjian Elektronik Yang Termuat Dalam Peraturan Pemerintah Nomor 80 Tahun 2019 Tentang Perdagangan Melalui Sistem Elektronik,” *Notary Journal* 5, no. 1 (April 30, 2025): 1–21, <https://doi.org/10.19166/nj.v5i1.8241>.

illusion of freedom devoid of substantive negotiation space. The dominance of standard clauses engineered by system interfaces not only engenders a computational asymmetry in bargaining power, but also holds users' personal data sovereignty hostage under the guise of transactional efficiency. Therefore, civil contract law must imperatively reconstruct the doctrine of freedom of contract by transitioning from the paradigm of textual transparency (*notice-and-choice*) toward *compliance by design*. This transformation obligates the state to operationalize algorithmic governance through Regulatory Technology (RegTech) instruments to automatically audit and nullify exploitative clauses, thereby restoring equilibrium and substantive justice for the parties.

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