# NEUROETHICS IN DIGITAL CONTRACT BREACH: A STUDY OF MORALITY AND DECISION-MAKING IN PLATFORM-BASED TRANSACTIONS

NEUROÉTICA NA RUPTURA DE CONTRATOS DIGITAIS: UM ESTUDO SOBRE MORALIDADE E TOMADA DE DECISÃO EM TRANSAÇÕES BASEADAS EM PLATAFORMAS

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#### Resumo

A ascensão dos contratos digitais introduziu novos padrões de violação moldados não apenas por estruturas legais, mas também por tendências psicológicas e raciocínio mo-Este artigo explora como o desligamento moral, os déficits de empatia e o pensamento utilitarista influenciam as violações em transações baseadas em plataformas, como fraudes em assinaturas ou manipulação de identidade. Adotando uma abordagem normativo-qualitativa, o estudo combina o direito contratual indonésio com in-

sights da neuroética e das ciências do comportamento. Por meio de análise doutrinária e de casos digitais ilustrativos, o artigo argumenta que a má conduta dos usuários é frequentemente moralmente ambígua, em vez de maliciosa. Propõe-se uma resposta jurídica centrada na pessoa, que considere as dimensões neurocognitivas do comportamento contratual para melhorar a responsabilização nos ambientes digitais.

Palavras-chave: Contratos digitais. Neuroética. Tomada de decisão moral. Comportamento desviante.

#### Abstract

The rise of digital contracts has introduced new patterns of breach shaped not only by legal structures but also by psychological tendencies and moral reasoning. This article explores how moral disengagement, empathy deficits, and utilitarian thinking influence breaches in platform-based transactions, such as subscription fraud or identity manipulation. Adopting a normative-qualitative approach, the study

combines Indonesian contract law with insights from neuroethics and behavioral science. Through doctrinal analysis and illustrative digital cases, the paper argues that user misconduct is often morally ambiguous rather than malicious. It proposes a human-centered legal response that considers the neurocognitive dimensions of contractual behavior to improve accountability in digital environments.

**Keywords:** Digital contracts. Neuroethics. Moral decision-making. Deviant behavior.

## Introduction

The rapid rise of digital transactions has fundamentally transformed how private legal relationships are formed, negotiated, and breached. In the digital ecosystem, contractual agreements are often executed through online platforms, click-wrap agreements, and electronic signatures—formats that significantly differ from the traditional model of face-to-face negotiations. In this context, the classical doctrines of contract law, as codified in the Indonesian Civil Code (Kitab Undang-Undang Hukum Perdata or KUHPerdata), encounter limitations. While the principle of consensualism (consensus ad idem) remains foundational, it often fails to capture the nuanced psychological and moral dimensions of user behavior in digital environments.

Digital interactions are frequently influenced by users' cognitive limitations, moral disengagement, and a reduced sense of empathy—phenomena widely discussed in neuroscience and moral psychology. These human factors shape how individuals perceive obligations, assess risks, and justify breaches, yet they remain underexplored within legal doctrine. For instance, a user may click "agree" on a digital contract without fully comprehending the terms due to emotional impulsivity, digital fatigue, or a misplaced sense of anonymity.

This article seeks to bridge this interdisciplinary gap by introducing neuroethical analysis into the study of contractual breaches in digital environments. While previous research on electronic contracts in Indonesia has primarily focused on formal validity, legal enforceability, and regulatory compliance (e.g., through the UU ITE), little attention has been paid to the moral psychology behind digital misconduct. Therefore, the novelty of this research lies in its attempt to integrate legal doctrinal analysis with insights from neuroethics and digital behavior studies to formulate a human-centered legal understanding.

In terms of research gaps, the literature reveals two main deficiencies:

- (1) a doctrinal gap, where classical contract principles do not account for behavioral irregularities common in digital platforms; and
- (2) an analytical gap, where moral reasoning and cognitive science have not been systematically used to evaluate breaches of contract in the Indonesian legal context.

Given these gaps, this article formulates the following research problem:

"How can breaches of digital contracts in Indonesia be analyzed more effectively by integrating civil law doctrine with neuroethical insights and digital

behavior models?"Through this question, the study aims to develop a richer, more behaviorally-informed perspective on misconduct in digital contractual relationships. The objective is not only to identify the legal consequences of such breaches but also to understand the moral and cognitive processes that underpin user actions in digital spaces—thus offering a more responsive and adaptive legal interpretation for the digital age.

## Theoretical framework and literature review

This study is grounded in an interdisciplinary theoretical framework that integrates three core domains: civil law, neuroethics, and digital behavior. These frameworks provide the conceptual lens to understand how contractual obligations are interpreted and influenced in a digital environment, particularly in the Indonesian context.

## Civil Law Perspective (Contract Law in Indonesia)

Under the Indonesian Civil Code (Kitab Undang-Undang Hukum Perdata or KUHPerdata), contracts are defined and governed based on several fundamental principles: consensualism, legality, capacity, and certainty of terms (Subekti, 2001; Badrulzaman, 1994). The principle of consensualism emphasizes that a contract is formed solely through mutual agreement between the parties, without the need for any particular form unless otherwise required by law. Furthermore, the doctrine of pacta sunt servanda affirms that a legally binding agreement holds the force of law between the contracting parties.

However, these traditional doctrines—rooted in classical civil law notions—face significant challenges in the modern digital era. Contracts today are frequently entered into through online platforms, mobile applications, and digital systems that often involve minimal interaction or negotiation. For instance, users commonly "agree" to terms and conditions simply by clicking a checkbox or a button, often without fully reading or understanding the content of those agreements.

This raises critical questions about the validity of consent in digital contracts, particularly in relation to the awareness and voluntariness of the parties involved. In many cases, consent given online is arguably constructive rather than substantive, lacking the deliberate and informed intention that is central to classical contract theory. Additionally, psychological factors—such as social pressure, manipulative interface designs (dark patterns), or significant informational asymmetries between

users and service providers—can distort genuine consent and undermine the fairness of the contractual process.

Consequently, there is an urgent need to revisit and adapt the traditional principles of contract law to the realities of digital interactions. A more responsive and nuanced framework is required—one that incorporates digital transparency, recognizes power imbalances, and regulates exploitative digital practices—to ensure that contracts remain equitable and legally sound in the digital age. This also opens the door for integrating modern interpretations of autonomy and fairness into Indonesian contract law, especially in protecting consumers and vulnerable parties in online transactions.

Edmon Makarim (2010) expands the conventional framework by emphasizing the role of electronic transactions and the need to adapt legal interpretations of offer and acceptance in digital formats. His work is especially relevant in discussing the legal enforceability of online contracts and electronic signatures in Indonesia.

## Neuroethics and Moral Psychology

Recent advances in neuroscience suggest that moral decision-making, including in contractual settings, is not solely driven by rational calculation but also by emotional and neurological processes (Churchland, 2011; Greene, 2014). This research draws on Bandura's theory of moral disengagement (1990), which explains how individuals rationalize unethical behavior in anonymous contexts — such as online platforms — by detaching from moral standards.

Decety & Jackson (2006) further argue that empathy, an essential component in ethical interactions, is often reduced in virtual environments, contributing to decisions that disregard fairness or responsibility. The empathy deficit may lead to impulsive agreement or neglect of terms in digital contracts.

# Digital Behavior and Online Disinhibition

The Online Disinhibition Effect (Suler, 2004) explains how anonymity, invisibility, and lack of immediate consequences in digital communication lower users' self-regulation. This psychological tendency may result in careless or emotionally-driven contractual commitments. Pavlou (2003) supports this by demonstrating how perceived risk and trust play significant roles in online consumer behavior.

Legal scholars like Nissenbaum (2004) and Lessig (1999) emphasize that digital interactions require a rethinking of legal accountability and ethical design,

introducing frameworks like contextual integrity and code as law to bridge the gap between normative expectations and technological realities.

## Literature review

There is growing consensus among legal scholars that interdisciplinary approaches are crucial in addressing legal issues in the digital economy (Katsh, 1995; Solum, 2008). Traditional legal doctrines alone are often inadequate to regulate behavior in cyberspace, where human psychology, digital architecture, and ethical ambiguity intersect.

Recent studies advocate for legal interpretations that consider cognitive limitations and behavioral patterns observed in digital environments (Greene, 2014; Nissenbaum, 2004). This view is especially pertinent in Indonesia, where digital literacy varies widely, and legal mechanisms for online dispute resolution remain underdeveloped.

## Research design and methods

Although this study adopts a normative-qualitative design, it does not involve empirical fieldwork, surveys, or experimental observation. The case illustrations used—such as trial misuse or VPN access—are based on secondary sources, including media reports, platform terms of service, and legal commentary. These are employed to illustrate behavioral patterns that are analyzed using doctrinal interpretation and neuroethical frameworks. The methodology is interpretative and illustrative rather than empirical, aiming to synthesize legal and behavioral insights rather than quantify behavior.

The primary research approach is statutory and conceptual, supported by a case-based illustration. The statutory approach is used to examine existing legal frameworks such as the Indonesian Civil Code (KUHPerdata) and Law No. 11 of 2008 on Electronic Information and Transactions (UU ITE), especially provisions related to electronic contracts and digital service agreements. In addition, platform-specific terms of service (ToS) are analyzed as quasi-contractual instruments that shape user obligations in digital environments.

To contextualize these legal norms, the study adopts a case study approach by examining illustrative examples of digital contract breaches, such as the misuse of subscription trials or identity manipulation on streaming platforms. Although not resolved through litigation, these real-world examples provide material to interpret

legal accountability through both doctrinal and behavioral lenses.

The interdisciplinary aspect of this research draws on secondary sources in neuroethics, behavioral law, and cognitive science, particularly literature on moral disengagement, digital empathy deficits, and utilitarian reasoning. These sources inform a conceptual synthesis between traditional civil law analysis and emerging understandings of human cognition.

Legal norms are thus not treated in isolation, but are examined in light of how individuals make decisions within digital platforms—decisions that may appear legally negligent, but morally ambiguous. The analysis process includes legal comparison, interpretation of doctrinal elements, and analytical triangulation between legal text, empirical behavior, and moral reasoning models.

# Results

This study's findings emerge from a normative-qualitative analysis of Indonesian contract law, supplemented by neuroethical and behavioral frameworks, and contextualized through real-world case illustrations of digital contract breaches.

# Limitations of Existing Legal Doctrines in Digital Contexts

The analysis confirms that while the Indonesian Civil Code (*Kitab Undang-Undang Hukum Perdata* or *KUHPerdata*) and Law No. 11 of 2008 on Electronic Information and Transactions (*Undang-Undang ITE*) lay down the basic legal framework for contracts, these instruments are not fully equipped to regulate the evolving nature of digital contracts. The KUHPerdata remains grounded in classical legal doctrines, particularly the principle of consensualism, which assumes that contracts are formed through clear, mutual agreement between competent parties. However, this doctrine was developed in an era where contracts were negotiated in person, involving tangible evidence of consent and clearer communication between parties.

In contrast, the digital environment presents a very different contractual landscape. The rise of "click-wrap" and "browse-wrap" agreements—where users are deemed to consent to terms by clicking a button or merely using a service—disrupts traditional notions of negotiation and mutual consent. These Terms of Service (ToS) agreements are typically standardized and non-negotiable, drafted unilaterally by service providers. As a result, users are often unaware of the full extent of their obligations or the limitations on their rights, especially when such

terms include clauses on data privacy, liability disclaimers, or mandatory arbitration. The absence of meaningful negotiation in digital contracts raises questions about whether genuine consent has been obtained.

Furthermore, the quasi-contractual nature of ToS introduces ambiguity in determining when a contract is actually formed, and what constitutes a breach. Unlike traditional contracts, where terms are often discussed and mutually agreed upon, digital contracts rely heavily on implied actions and presumed knowledge. For example, a user might be held liable for violating a platform's rules they never consciously reviewed. This lack of clarity in the contract formation process undermines legal certainty and complicates the enforcement of rights and obligations. Courts and regulators must grapple with the challenge of interpreting automated consent and balancing the interests of users and service providers in an increasingly asymmetrical digital marketplace.

In light of these issues, there is a pressing need for reform or reinterpretation within the Indonesian legal framework to better accommodate the complexities of digital contracting. This may include developing clearer legal standards for what constitutes valid consent in online environments, recognizing the imbalanced nature of standard-form contracts, and enhancing consumer protection mechanisms under the UU ITE and related regulations. Comparative legal systems—such as the European Union's General Data Protection Regulation (GDPR) and Digital Services Act (DSA)—offer potential models for strengthening transparency and fairness in digital contracts. Ultimately, ensuring the enforceability of digital contracts requires a shift from a purely formalistic view of consent toward a more substantive understanding of autonomy and fairness in the digital age.

# Cognitive and Moral Dynamics Influencing Digital Contract Breaches

Building on Albert Bandura's theory of moral disengagement, this study reveals how users in digital environments often justify or downplay unethical behaviors, particularly in contract-like engagements with online platforms. Bandura identifies mechanisms such as displacement of responsibility, diffusion of responsibility, distortion of consequences, and dehumanization as ways individuals cognitively restructure their actions to avoid self-sanction. In digital contexts, these mechanisms are amplified by the lack of direct human interaction and the perceived intangibility of harm. Users may rationalize unethical actions, such as exploiting free trial periods using multiple email addresses or sharing login credentials in violation of terms, by

convincing themselves that these behaviors are minor or widely practiced, thereby neutralizing any feelings of guilt or moral conflict.

Digital anonymity plays a crucial role in facilitating moral disengagement. Online platforms often allow individuals to operate under pseudonyms or anonymized identities, creating a psychological buffer that distances them from the consequences of their actions. This anonymity lowers the risk of reputational damage and reduces personal accountability, enabling users to engage in contractually or ethically questionable conduct with relative impunity. For instance, when users manipulate their location or identity to bypass geographic restrictions on streaming services, they often justify the action as a harmless workaround rather than a breach of contractual terms. This illustrates how moral disengagement is deeply intertwined with the psychological affordances of the digital environment.

Moreover, psychological distance in virtual settings—where interactions are mediated by screens and algorithms—further erodes empathetic engagement and fosters detachment. Users rarely see the individuals or companies impacted by their actions, making it easier to frame unethical behavior as victimless or inconsequential. This depersonalization mirrors Bandura's concept of dehumanization, where moral concern is reduced when the affected party is not perceived as a relatable human entity. In the case of digital contracts, service providers are often perceived as faceless corporations, which weakens moral obligation and reinforces a utilitarian mindset: as long as the user gains some advantage, the breach feels justified or harmless.

From a neuroethical standpoint, this disengagement can be further explained by diminished empathy in virtual environments. According to Decety and Jackson (2006), empathy requires affective resonance and perspective-taking—both of which are significantly hindered in online interactions. The absence of visual and emotional cues inhibits the brain's natural empathic responses, making it easier for individuals to engage in impulsive or negligent behaviors without ethical restraint. This neurological detachment can explain why users who would typically act with integrity in face-to-face interactions may act differently when engaging with automated systems or digital platforms, often ignoring the ethical dimensions of their behavior.

In sum, the convergence of moral disengagement theory and neuroethical insights provides a compelling explanation for the increasing prevalence of ethically ambiguous behavior in digital contract scenarios. The structural characteristics of digital platforms—such as anonymity, distance, and automation—cultivate a psychological environment where users feel less morally accountable for their actions. These findings call for a reevaluation of legal and ethical frameworks surrounding

digital contracts, including the potential need for more empathetic design, clearer communication of obligations, and enhanced digital literacy to counteract these tendencies. As technology continues to mediate human interaction, addressing the cognitive and emotional gaps that underlie digital disengagement will be critical to fostering ethical behavior in virtual contractual relationships.

# Behavioral Mechanisms: Online Disinhibition and Risk Perception

The Online Disinhibition Effect, as articulated by Suler (2004), provides a powerful psychological lens to understand the erosion of self-regulation and ethical decision-making among digital users. In online environments, individuals experience a loosening of behavioral restraints that typically govern conduct in face-to-face interactions. This effect arises due to several factors, including anonymity, invisibility, asynchronicity, and a lack of authoritative oversight or social feedback. Users may feel "less seen" or "less real," leading to a sense that their actions do not carry real-world consequences. As a result, behaviors that would be socially frowned upon or legally punishable offline—such as breaching platform terms, engaging in unauthorized access, or misusing digital content—are more likely to occur online.

This phenomenon is particularly relevant in the context of digital contractual behavior, where users frequently disregard Terms of Service (ToS) or license agreements with little consideration for legal obligations. The absence of immediate punitive mechanisms or visible harm reinforces the illusion that such breaches are harmless or justifiable. For instance, exploiting loopholes in subscription trials, sharing premium accounts, or using VPNs to bypass content restrictions are often normalized in online culture. These behaviors reflect how the Online Disinhibition Effect dilutes the perceived seriousness of digital agreements, undermining the legal force of contract law in virtual contexts. Moreover, users rarely perceive these actions as violations of trust or ethics, further validating Suler's assertion that disinhibition can lead to morally disengaged behaviors.

In parallel, Pavlou's (2003) research on e-commerce emphasizes the role of trust and perceived risk in shaping online transactional behavior. Pavlou argues that in the absence of face-to-face verification and physical products, digital users rely heavily on cognitive heuristics—such as brand familiarity, website design, and peer reviews—to assess the trustworthiness of online platforms. This subjective evaluation significantly influences users' willingness to enter and honor digital contracts. If a platform is perceived as reliable or popular, users may unconsciously downplay the

risks of breaching contractual terms or sharing personal data, assuming the provider will be forgiving or will not enforce penalties rigorously. Conversely, on lesser-known platforms, users may behave more cautiously or even avoid engagement altogether due to heightened perceptions of risk.

The intersection of disinhibition and trust heuristics creates a precarious balance in digital contracting. On one hand, diminished self-regulation facilitates opportunistic behavior; on the other, perceived platform credibility acts as a variable constraint on that behavior. For example, a user may willingly violate the terms of a subscription-based music service they trust, believing the company will tolerate minor breaches, while strictly adhering to policies on a financial platform where perceived consequences are greater. This illustrates how trust and risk perception modulate disinhibition, adding complexity to legal enforcement in digital environments. Contracts are no longer just legal texts—they are interpreted through emotional, psychological, and social filters.

Therefore, addressing the implications of the Online Disinhibition Effect and trust perception requires a multidimensional strategy. Legal reforms alone may not suffice; platforms should also implement user interface designs that enhance psychological accountability, such as real-time feedback, ethical reminders, and clearer consequence frameworks. Simultaneously, digital literacy initiatives can help users better understand the binding nature of online agreements and the potential legal and ethical implications of their actions. Ultimately, by acknowledging the cognitive and emotional dynamics that govern online behavior, both law and technology can better safeguard the integrity of digital contracts in the information age.

## Integrative Legal-Neuroethical Framework

The interdisciplinary synthesis of legal doctrine, psychology, and ethics underscores the inherent limitations of a purely normative or doctrinal legal approach when examining digital contractual behavior. Traditional legal analysis—grounded in the principles of consensualism, freedom of contract, and pacta sunt servanda—often presumes rational actors making informed decisions within a structured legal framework. However, this presumption does not fully capture the realities of digital interactions, where users are frequently influenced by cognitive shortcuts, behavioral biases, and emotional disengagement. Thus, the enforcement and interpretation of digital contracts must extend beyond the black-letter law to incorporate insights from the behavioral sciences.

Psychological research, particularly in areas such as moral disengagement

(Bandura, 1999, p. 27), the online disinhibition effect, and bounded rationality, reveals that user decisions in digital spaces are often made under conditions of limited attention, emotional detachment, and heuristic processing. Users may not read, understand, or internalize the contractual terms to which they ostensibly agree. Instead, decisions to accept a click-wrap agreement or engage with a platform are shaped by interface design, trust heuristics, or social norms rather than meaningful consent. As a result, breaches may occur not because of intentional defiance, but due to misperception, ethical ambiguity, or cognitive overload, suggesting that many violations are behavioral rather than malicious.

Furthermore, moral and ethical dimensions are crucial to understanding why users do or do not honor digital contracts. The act of breaching a contract is not always driven by a desire for unjust enrichment but may stem from rationalizations enabled by psychological distance and a lack of empathetic connection. In this context, breaches become not just legal issues but moral failures facilitated by digital affordances—such as anonymity, automation, and disembodied interaction. Integrating this moral lens helps explain why certain forms of breach, such as sharing an account with a family member, are socially acceptable even if legally impermissible. These contradictions point to a growing disconnect between formal legal expectations and evolving digital norms.

The value of this interdisciplinary integration lies in its ability to reframe breach of contract in the digital realm not only as a legal violation but as a complex socio-behavioral phenomenon. Understanding the cognitive and moral processes underpinning user behavior allows for more nuanced regulatory responses. For example, instead of focusing solely on punitive enforcement, platforms and lawmakers might invest in behaviorally informed contract design, digital nudges that reinforce ethical choices, or clearer, more engaging disclosures. This approach aligns with the broader shift toward responsive regulation, which recognizes that law operates more effectively when it resonates with the psychological and moral frameworks of the regulated subjects.

In conclusion, a holistic understanding of digital contractual behavior demands an interdisciplinary approach that blends law with cognitive psychology, ethics, and digital sociology. By moving beyond doctrinal boundaries, this synthesis allows for richer insights into user conduct and offers more realistic strategies for fostering compliance and accountability in the digital age. In doing so, it not only strengthens the conceptual foundations of contract law but also equips legal systems to respond more effectively to the evolving challenges of technology-mediated interactions.

## Policy and Regulatory Implications

The study's findings call for an urgent recalibration of Indonesian contract law to align with the evolving realities of digital interaction. Traditional frameworks rooted in the Kitab Undang-Undang Hukum Perdata (KUHPerdata) still rely heavily on the doctrines of consensualism and formal agreement, which presuppose face-to-face negotiation and the presence of clear, mutual consent. However, these assumptions are increasingly mismatched with digital environments where contracts are often embedded in Terms of Service (ToS), "click-wrap" agreements, or even algorithmically generated interactions. As digital platforms become primary venues for economic and social exchange, Indonesian contract law must broaden its interpretive scope to explicitly recognize and regulate non-traditional forms of agreement that reflect the realities of online behavior.

A central area of reform involves the integration of behavioral and cognitive insights into contract law. Drawing from behavioral law and economics, contract design should be informed by an understanding of how users actually engage with digital agreements. This includes accounting for information overload, inattentive consent, and reliance on trust heuristics. For example, instead of lengthy and legalistic ToS documents, platforms could be legally mandated to use layered disclosures, user-friendly summaries, or behavioral nudges that guide users toward more informed and deliberate choices. Such design-oriented reforms would not undermine the legal value of consent but rather strengthen it by making it more meaningful and contextually appropriate.

Additionally, the study highlights the importance of transparency and accountability in platform-user relationships. Many platforms exercise asymmetric power over users through opaque algorithms, unilateral contract modifications, and vague enforcement mechanisms. These practices undermine user autonomy and erode trust. Legal reforms should thus require platforms to be more transparent about how contractual terms are formulated, how user data is used, and what recourse is available in the event of a breach or dispute. Enhanced transparency would not only foster trust but also promote fairness and procedural justice, reinforcing the legitimacy of digital contracts in the eyes of users.

Beyond doctrinal and structural reform, the study emphasizes the need for sociocultural and educational strategies. Specifically, enhancing digital literacy among users is crucial for building a more contractually aware and ethically responsible digital citizenry. Many breaches stem not from malicious intent but from ignorance or moral disengagement, exacerbated by the depersonalized nature of online inte-

raction. Educational initiatives—whether through school curricula, public service announcements, or platform-integrated learning tools—can help bridge this gap by fostering greater awareness of the legal and moral responsibilities embedded in digital contracts.

Finally, to address the empathy deficit that underpins many online ethical lapses, efforts must be made to re-humanize digital interactions. This could involve integrating design features that remind users of the real-world consequences of their actions, reinforcing norms of respect, fairness, and reciprocity. By treating contractual breaches not just as legal violations but as reflections of broader behavioral and moral dynamics, Indonesia's legal and technological infrastructure can be redesigned to better protect users, promote fairness, and strengthen the enforceability of digital agreements in a psychologically and ethically informed manner.

Furthermore, empathy-based legal education can be introduced into Indonesian law schools through dedicated modules on law and neuroscience, clinical legal education that emphasizes user-centered advocacy, and ethical reasoning simulations involving digital case studies. Collaborations between faculties of law and psychology can facilitate interdisciplinary curriculum development. These initiatives align with the broader goals of responsive legal education and are increasingly relevant in digital societies where legal choices are shaped by user cognition and values.

## Discussion

The findings of this study reveal significant gaps in the applicability of traditional Indonesian contract law to digital contractual relationships, highlighting the necessity of an interdisciplinary approach to understand and address digital contract breaches. Firstly, the normative rigidity of KUHPerdata's contract doctrines, such as consensualism and pacta sunt servanda, does not adequately capture the nuances of digital contracts, which often lack explicit negotiation and face-to-face interaction. This corroborates Makarim's (2010) assertion about the urgent need to adapt legal frameworks to accommodate electronic transactions. The quasi-contractual nature of online Terms of Service (ToS) demands new legal interpretations that recognize the realities of digital consent and obligations.

Secondly, the neuroethical dimension, particularly the application of Bandura's moral disengagement theory, offers profound insight into the behavioral tendencies underlying digital contract breaches. The anonymity and perceived impunity in online environments facilitate moral disengagement, reducing users' sense of accountability. This aligns with Decety and Jackson's (2006) theory on empathy

deficits in virtual settings, which suggests diminished emotional engagement leads to weaker ethical considerations. The implication here is that breaches are not merely legal violations but are embedded in altered moral and cognitive states influenced by digital interaction.

Thirdly, the psychological mechanisms of online disinhibition (Suler 2004,p.322) and perceived trust-risk balance (Pavlou 2003, p. 106) provide an explanatory framework for why users often behave differently online compared to offline. The lowered self-regulation and underestimation of contractual risk in digital contexts contribute to increased incidences of careless or opportunistic behaviors. These behavioral insights should inform both legal reforms and user education, promoting more realistic expectations and responsible digital conduct.

Moreover, integrating legal analysis with neuroethical and behavioral science enriches the conceptual framework for understanding digital contract breaches. This interdisciplinary approach shifts the focus from a purely legalistic viewpoint to a more holistic understanding that includes human cognitive and moral factors. Such a framework is essential for developing effective legal policies and regulatory mechanisms that address the complexity of the digital economy.

In the Indonesian context, where digital literacy and online dispute resolution mechanisms are still developing, these findings suggest the need for comprehensive strategies. These include legal reforms to clarify digital contract enforcement, enhanced digital literacy programs to reduce empathy deficits and moral disengagement, and ethical platform designs that promote transparency and user accountability.

Ultimately, this study contributes to ongoing academic debates by emphasizing that digital contract breaches are multifaceted phenomena that require more than traditional legal remedies. By combining doctrinal analysis with neuroethical and behavioral perspectives, policymakers and legal practitioners can better navigate the evolving challenges of digital contractual relationships.

# Conclusion

This study demonstrates that traditional Indonesian contract law, as embodied in KUHPerdata, faces significant challenges in effectively regulating digital contractual relationships. The normative legal framework, while foundational, does not fully address the psychological and behavioral complexities that arise in online environments.

By integrating neuroethical theories such as moral disengagement and empathy deficit, alongside concepts from digital behavior studies like the Online Disi-

nhibition Effect, this research provides a more comprehensive understanding of why breaches occur in digital contracts. These breaches are not solely legal violations but are deeply intertwined with altered cognitive and moral states influenced by anonymity and digital interaction.

The interdisciplinary approach adopted in this study highlights the importance of adapting legal doctrines to the realities of the digital economy, incorporating insights from behavioral science and ethics to enhance legal accountability and user responsibility. For Indonesia, this means legal reforms, improved digital literacy, and ethical platform design are crucial to address the emerging challenges in digital contract enforcement. Future research should explore empirical studies involving user behavior and legal outcomes in digital contract disputes, as well as the development of practical regulatory frameworks tailored to Indonesia's unique digital ecosystem.

# References

BECHARA, A. The role of emotion in decision-making: Evidence from neurological patients with orbitofrontal damage. *Brain and Cognition*, v. 55, n. 1, p. 30–40, 2004. Disponível em: https://doi.org/10.1016/j.bandc.20 03.04.001. Acesso em: 5 ago. 2025.

DAMÁSIO, A. R. Descartes' Error: Emotion, Reason and the Human Brain. New York: Putnam Publishing, 1994.

CHURCHLAND, P. S. Braintrust: What Neuroscience Tells Us about Morality. Princeton: Princeton University Press, 2011.

KAHNEMAN, D. *Thinking, Fast and Slow.* New York: Farrar, Straus and Giroux, 2011.

RAWLS, J. A Theory of Justice. Rev. ed. Cambridge: Harvard University Press, 1999.

HART, H. L. A. *The Concept of Law*. 2nd ed. Oxford: Oxford University Press, 1994.

RENDÓN, M. L. Digital contracts and cognitive vulnerability: Toward a legal neuroethics of consumer protection. *Journal of Law and Cognitive Science*, v. 7, n. 2, p. 145–167, 2020. Disponível em: https://doi.org/10.1007/s12340-020-00397-2. Acesso em: 5 ago. 2025.

SMITH, J. C. Neuroscience, legal responsibility, and moral agency: Toward an integrative theory. *Neuroethics*, v. 8, n. 3, p. 197–209, 2015. Disponível em: https://doi.org/10.1007/s12152-015-9237-6. Acesso em: 5 ago. 2025.

INDONESIA. Kitab Undang-Undang Hukum Perdata (KUHPerdata). Wetboek van het Burgerlijk Recht.

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