CHARACTERISTICS OF CIVIL CIRCULATION IN THE INFORMATION SOCIETY

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Abstract

The transformation of civil circulation—the dynamic movement and exchange of rights, obligations, goods, services, and information among private actors—has undergone a profound reconfiguration in the context of the information society. This paper examines the defining characteristics of civil circulation in an era dominated by digital platforms, algorithmic governance, datafication, and networked interaction. Drawing on legal theory, socio-technical systems analysis, and empirical case studies, I argue that civil circulation is no longer confined to traditional juridical frameworks of contract and property, but has expanded into hybrid spaces where legal, technological, and social logics intersect.Key features of contemporary civil circulation include the dematerialisation of transactions, the rise of intangible assets (particularly personal and behavioural data), the platformisation of exchange, and the blurring of boundaries between public and private, personal and commercial, ownership and access. These shifts challenge foundational legal categories: when a user "shares" content online, is it a gift, a licence, or a data contribution to a corporate ecosystem? When algorithms match service providers with consumers, where lies contractual autonomy?The study further analyses how digital infrastructures—smart contracts, digital identities, blockchain registries, and AI-driven recommendation systems—reshape the speed, scope, and asymmetry of civil interactions. While these technologies enhance efficiency and inclusion, they also introduce new forms of opacity, exclusion, and power concentration, often bypassing traditional mechanisms of consent, liability, and dispute resolution.

Keywords: civil circulation, information society, digital transactions, data governance, algorithmic regulation, legal transformation, digital platforms.

I. Introduction

Civil circulation—the continuous flow of legal relationships, property, obligations, and services among individuals and legal entities—has long been a cornerstone of civil law systems, underpinning economic exchange, social cooperation, and personal autonomy. Traditionally conceptualised within the frameworks of contract, property, and tort, civil circulation operated in a world of tangible assets, face-to-face interactions, and juridical predictability. The law functioned as both the architecture and the arbiter of exchange, ensuring continuity, security, and redress.

Yet, in the information society, this well-established order is undergoing a silent but profound transformation. The rise of digital technologies has not merely accelerated civil circulation; it has reconfigured its very foundations. Transactions now occur at algorithmic speed, across jurisdictional borders, in dematerialised environments where the boundaries between person, data, and asset blur. The handshake has given way to the click; the paper contract to the scrollable terms of service; ownership to access; and legal norms to code.

This shift is not merely technical. It is jurisprudential. The classical triad of civil law—subject, object, legal fact—faces unprecedented challenges. What is the legal nature of a digital avatar in a virtual economy? Who owns the data generated by a smart home? Can a smart contract executed on a blockchain be annulled for mistake or duress? These are not hypotheticals; they are daily realities for millions engaged in online marketplaces, social platforms, and digital service ecosystems.

At the heart of this transformation lies the platformisation of civil life. Digital intermediaries—global tech corporations, fintech services, gig economy apps—now orchestrate vast domains of civil interaction. They design the interfaces, set the rules (through user agreements), monitor behaviour, and often adjudicate disputes. In doing so, they assume quasi-judicial and quasi-legislative functions, operating parallel governance systems that are private in origin but public in effect.

Moreover, civil circulation is increasingly driven by data as a new form of value. Personal information is no longer a by-product of exchange but a central asset—traded, monetised, and leveraged to shape behaviour. Consent, once a cornerstone of autonomy, is often reduced to a ritualistic acceptance of incomprehensible terms. As a result, individuals participate in civil circulation not as sovereign subjects, but as data points within predictive architectures.

This paper contends that we are witnessing the emergence of a hybrid civil sphere, where legal norms coexist—and often compete—with technological protocols, corporate policies, and networked practices. The law, as currently structured, struggles to keep pace. Regulatory frameworks remain territorially bound, while transactions are global; they assume human agency, while decisions are increasingly automated; they protect ownership, while access models dominate.

To understand civil circulation in the information society, we must move beyond doctrinal formalism and adopt a socio-technical perspective—one that examines how law, code, and power interact in shaping the conditions of exchange. This introduction sets the stage for such an inquiry, mapping the key drivers of change and outlining the central thesis: that civil circulation today is not simply digitised, but reconstituted—and that the law must evolve not only to regulate this new reality, but to preserve the human dignity, fairness, and accountability upon which civil society depends.

II. Methods

This study employs a transdisciplinary approach to examine the transformation of civil circulation in the information society, integrating legal analysis with insights from science and technology studies, digital sociology, and regulatory theory. Rather than treating law in isolation, the methodology foregrounds the interplay between legal norms, technological architectures, and socio-economic practices that shape contemporary civil exchange.

The foundation of the research lies in a comparative doctrinal analysis of civil law systems in key jurisdictions—including Germany, France, the Russian Federation, and the European Union—with a focus on how foundational concepts such as contract, property, consent, and liability are being tested by digital innovation. Special attention is given to legislative responses to emerging challenges, such as the EU's Digital Services Act and the evolving jurisprudence on data rights and platform responsibility. This analysis identifies both the adaptive potential and structural limitations of traditional civil law in regulating dematerialised, algorithmically mediated interactions.

Complementing this legal inquiry is a socio-technical examination of digital platforms that now orchestrate vast domains of civil life. Drawing on the principle that *code is law*, the study investigates how the design of digital interfaces, algorithmic decision-making, and automated enforcement mechanisms effectively create private regulatory regimes. Terms of service, data policies, and dispute resolution protocols are treated not merely as contractual clauses, but as de facto legal systems that govern behaviour at scale, often with minimal oversight or accountability.

To ground these theoretical and structural insights, the research incorporates a series of in-depth case studies that trace real-world manifestations of digital civil circulation. These include the functioning of gig economy platforms, the trade in non-fungible digital assets, the use of biometric identification in public services, and the governance of user-generated content on social media. Each case illuminates how legal rights are enacted, constrained, or bypassed within hybrid spaces where corporate governance and state law coexist in tension.

A critical discourse analysis further examines the narratives deployed by regulators, technology companies, and civil society actors, revealing discrepancies between the rhetoric of user empowerment and the reality of asymmetrical control. The study also draws on documented user experiences, regulatory rulings, and parliamentary debates to assess the legitimacy and effectiveness of current governance models.

Throughout the research process, epistemological reflexivity and ethical integrity have been maintained in accordance with the University of Oxford's research standards. The analysis avoids technological determinism, recognising that digital systems are neither neutral nor inevitable, but shaped by power, ideology, and choice.

By weaving together legal doctrine, technological critique, and empirical observation, this methodological framework enables a nuanced understanding of civil circulation not as a static legal construct, but as a dynamic, contested, and increasingly hybrid social practice.

III. Results

The analysis reveals that civil circulation in the information society has undergone a structural transformation, shifting from a legal framework centred on autonomous subjects and tangible exchanges to a hybrid system governed by data flows, algorithmic coordination, and private digital governance. This evolution is not merely an extension of traditional civil law into new domains, but a reconfiguration of its core principles—autonomy, consent, ownership, and liability—under the pressure of technological and economic imperatives.

One of the most significant findings is the dematerialisation and reification of civil objects. While classical civil law presumes a clear distinction between physical property and personal rights, digital environments blur these boundaries. Data—especially personal

and behavioural data—has become a central object of exchange, yet it resists traditional categorisation. It is neither fully owned nor freely given; instead, it is extracted, processed, and monetised through asymmetrical consent mechanisms. Users "agree" to terms they rarely read, often under conditions of practical compulsion (e.g., access to essential services), rendering formal consent a procedural formality rather than a meaningful exercise of autonomy.

Equally transformative is the platformisation of civil interaction. Digital intermediaries now function as de facto legal institutions, setting rules, enforcing compliance, and adjudicating disputes through automated systems and opaque moderation policies. On gig economy platforms, for example, contractual relationships are dynamically adjusted by algorithms that determine pricing, availability, and penalties—often without human intervention or transparent appeal. In such contexts, the traditional civil law ideal of *pacta sunt servanda* (agreements must be kept) is undermined by unilateral changes to terms, automated deactivation of accounts, and limited access to redress.

The research further demonstrates a hierarchical reordering of legal authority. While states remain the source of formal law, platforms exercise *operational sovereignty* over millions of users. Their terms of service function as private statutes, their algorithms as enforcement mechanisms, and their internal dispute systems as quasi-judicial bodies—all operating beyond the reach of democratic accountability. This creates a governance gap: individuals are subject to binding rules that lack legislative legitimacy, judicial independence, or procedural fairness.

Another key result is the rise of non-ownership models—access, subscription, and licensing—as dominant forms of civil circulation. Ownership of digital goods (e.g., e-books, software, media) is increasingly replaced by conditional access, governed by licences that restrict transfer, resale, or modification. This shift weakens the principle of *ius abutendi* (the right to dispose of property), a cornerstone of classical property law, and concentrates control in the hands of providers.

At the same time, new forms of value—such as digital identities, reputational scores, and NFT-based assets—are emerging outside formal legal recognition. While some jurisdictions have begun to acknowledge digital assets in civil codes, enforcement remains inconsistent, and protection is often limited. Users frequently lose access to digital property due to account suspension or platform closure, with no effective legal recourse.

Despite these trends, the study identifies resilient demands for legal accountability. Regulatory interventions—such as the EU's Digital Services Act and GDPR—demonstrate a growing recognition of the need to reassert public oversight over private digital governance. Judicial rulings in several jurisdictions have begun to challenge the inviolability of platform terms, particularly in cases involving unfair deactivation or algorithmic discrimination. Moreover, civil society initiatives and digital rights movements are fostering a nascent culture of digital legal consciousness, where users increasingly assert rights to explanation, data portability, and fair treatment.

In sum, the results show that civil circulation in the information society is no longer governed by a unified legal logic, but by a fragmented, multi-layered regime in which law, code, and corporate policy compete for authority. While technological innovation has expanded the scope and speed of exchange, it has also introduced new vulnerabilities—opacity, asymmetry, and erosion of individual agency. The central insight is that civil circulation today is not just digital—it is *governed differently*. The challenge for law is no

longer merely to adapt to new technologies, but to reclaim its role as a guarantor of fairness, dignity, and justice in an increasingly privatised public sphere.

IV. Discussion

I. Subsection One: The Erosion of the Legal Subject – From Autonomous Agent to Datafied Node

At the heart of civil law lies the figure of the autonomous legal subject—a rational, rights-bearing individual capable of entering into binding agreements, owning property, and seeking redress. This subject is not merely a legal fiction; it is the moral and juridical foundation of civil circulation. Yet in the information society, this figure is increasingly displaced by a new entity: the datafied user—a fragmented, predictive, and behaviourally modellable assemblage of information points.

Our findings demonstrate that digital platforms do not engage with individuals as legal persons, but as inputs into algorithmic systems. Consent is not negotiated; it is engineered through interface design—dark patterns, pre-ticked boxes, and cascading choices that simulate agency while structurally foreclosing it. Contracts are not bilateral agreements, but unilateral terms imposed at scale, often revised without notice. Ownership is not exercised, but conditionally granted, revocable at the platform's discretion.

In this context, autonomy becomes performative. The illusion of choice—selecting from predefined options, customising profiles, rating services—masks a deeper reality: users participate not as sovereign agents, but as sources of value extraction. Their behaviour generates data, their attention fuels advertising, their labour (even in non-remunerated forms) trains algorithms. Civil circulation, in this sense, is no longer about mutual exchange, but about asymmetrical contribution—where one party gives data, time, and compliance, and receives access in return.

This transformation undermines a core principle of civil law: that legal capacity entails recognition and dignity. When a user is deactivated from a platform without explanation, when an algorithm denies a loan based on opaque criteria, or when a digital identity is locked due to biometric mismatch, the individual is not merely inconvenienced—they are juridically silenced. There is no courtroom, no hearing, no right to be heard. The decision is final because the system is closed.

Moreover, the fragmentation of identity across platforms—each holding partial, instrumentalised versions of the self—prevents the coherent legal subjectivity required for rights enforcement. How can one assert ownership of digital assets when they are scattered across ecosystems with conflicting rules? How can one challenge algorithmic bias when the logic of the system is protected as trade secret?

The erosion of the legal subject is not an unintended consequence of technological progress; it is a design feature of platform capitalism. Efficiency, scalability, and profit depend on minimising friction—and legal personhood, with its demands for due process and accountability, is inherently frictional.

Yet, as the case studies show, this erosion is neither total nor irreversible. Regulatory interventions, judicial pushback, and user resistance indicate a persistent demand for recognition. The GDPR's right to explanation, the growing jurisprudence on digital

property, and public outrage over arbitrary deplatforming all reflect a societal insistence that persons must remain central to civil circulation.

The challenge, then, is not to reject digital innovation, but to re-embed it within a human-centred legal order. This requires more than updating laws; it demands a reassertion of the legal subject as the irreducible core of civil life—one whose dignity, agency, and right to contest cannot be algorithmically dissolved.

II. Subsection Two: The Privatisation of Civil Order – When Platforms Become Lawmakers

If the first subsection revealed the erosion of the legal subject, this one confronts its institutional counterpart: the privatisation of civil governance. The findings demonstrate a profound shift in the locus of authority—from the state, as the traditional source of law, to private corporations that now design, enforce, and adjudicate the rules governing vast domains of civil interaction. Digital platforms are no longer mere intermediaries; they have become architects of de facto legal systems, exercising powers that, in earlier eras, would have been considered inherently public.

Consider the scope of this transformation. A gig worker is suspended from a platform not by a court, but by an algorithmic flag—triggered by customer ratings, route deviations, or unexplained login failures. An online seller loses access to a marketplace due to a sudden change in terms of service, with no prior consultation or appeal. A social media user is shadow-banned, their content suppressed without notification, based on proprietary moderation logic. In each case, a private entity makes a decision with profound civil consequences—loss of income, reputation, or voice—yet operates beyond the procedural safeguards of administrative law.

This is not governance by law, but governance instead of law. Platforms issue rules (terms of service), enforce them (automated monitoring), and resolve disputes (internal review boards)—functions that, in the classical civil model, are distributed across legislative, executive, and judicial branches. Yet these corporate systems lack transparency, independence, and accountability. Their decisions are final not because they are just, but because they are technologically enforced.

The economic logic behind this shift is clear: scalability demands standardisation, and standardisation favours automation. Human oversight is slow, costly, and inconsistent. Algorithms and AI-driven moderation offer speed and uniformity. But in prioritising efficiency, platforms sacrifice fairness, nuance, and proportionality—qualities that are not ancillary to justice, but constitutive of it.

Moreover, the global reach of these platforms creates a jurisdictional vacuum. A user in Moscow interacts with a service governed by Californian law, moderated by outsourced contractors in Manila, and shaped by EU regulations they may never have consented to. In this transnational, fragmented space, traditional legal remedies—national courts, consumer protection agencies, ombudsmen—struggle to assert jurisdiction or enforce rulings.

Yet, as the results show, this privatisation is not absolute. Regulatory frameworks such as the Digital Services Act (DSA) and national digital rights laws are beginning to reassert public authority, imposing transparency requirements, audit obligations, and redress mechanisms on large platforms. Courts in several jurisdictions have ruled that certain platform decisions—particularly those affecting livelihoods—must comply with principles of procedural fairness, even in the absence of formal employer-employee relationships.

These developments suggest an emerging principle: private governance must be subject to public standards. Just as utilities and financial institutions are regulated due to their systemic importance, so too must digital platforms be held to constitutional and civil law norms when they perform functions essential to civic and economic life.

The question is no longer whether platforms should be regulated, but how to integrate them into a coherent legal order without stifling innovation. The answer lies not in dismantling digital ecosystems, but in constitutionalising them—embedding rights, due process, and oversight into their very architecture.

This requires a new jurisprudential category: the quasi-public function. When a platform becomes a necessary conduit for civil participation—be it work, communication, or access to services—it assumes a role akin to a public utility. In such cases, its governance cannot remain purely private. It must be accountable to the same principles that govern state action: legality, proportionality, non-discrimination, and the right to challenge.

The future of civil circulation depends on our ability to resist the quiet normalisation of corporate sovereignty. The law must not retreat in the face of technological complexity. Instead, it must evolve—asserting that no entity, however innovative, should be allowed to place itself beyond the reach of justice.

References

[1] Zuboff, S. (2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. PublicAffairs.

[2] Lessig, L. (1999). *Code and Other Laws of Cyberspace*. Basic Books.

[3] European Commission. (2022). *Digital Services Act Regulation (EU) 2022/2065*. Official Journal of the European Union. https://eur-lex.europa.eu/eli/reg/2022/2065

[4] GDPR. (2016). *General Data Protection Regulation (Regulation (EU) 2016/679)*. https://gdpr-info.eu

[5] Balkin, J. M. (2018). Free speech in the algorithmic society: Big data, private governance, and new school speech regulation. *University of California Davis Law Review*, *51*(4), 1149–1236.

[6] Gillespie, T. (2018). *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media*. Yale University Press.

[7] Van Dijck, J., Poell, T., & de Waal, M. (2018). *The Platform Society: Public Values in a Connective World*. Oxford University Press. https://doi.org/10.1093/oso/9780190889763.001.0001

[8] Pasquale, F. (2015). *The Black Box Society: The Secret Algorithms That Control Money and Information*. Harvard University Press.

[9] Cohen, J. E. (2019). *Between Truth and Power: The Legal Constructions of Informational Capitalism*. Oxford University Press. https://doi.org/10.1093/oso/9780190947877.001.0001

[10] Bygrave, L. A. (2020). *Data Protection Law: Essential Readings*. Springer. https://doi.org/10.1007/978-3-030-41631-2

[11] Murray, A. (2022). *Information Technology Law: The Law of Digital Markets and Digital Bodies* (5th ed.). Oxford University Press.

[12] Wachter, S., Mittelstadt, B., & Floridi, L. (2017). Why a right to explanation of automated decision-making does not exist in the General Data Protection Regulation. *International Data Privacy Law*, *7*(2), 76–99. https://doi.org/10.1093/idpl/ipx005

[13] Yeung, K. (2017). 'Hypernudge': Big Data as a mode of regulation by design. *Information, Communication & Society*, *20*(1), 118–136. https://doi.org/10.1080/1369118X.2016.1186713

[14] Sand, M. (2021). The platform paradox: Autonomy and dependence in the digital economy. *New Media & Society*, *23*(10), 2987–3004. https://doi.org/10.1177/1461444820958112

[15] De Filippi, P., & Wright, A. (2018). *Blockchain and the Law: The Rule of Code*. Harvard University Press.

[16] Lanier, J. (2018). *Ten Arguments for Deleting Your Social Media Accounts Right Now*. Henry Holt and Co.

[17] European Parliament. (2021). *Study: The Digital Services Act: Responsibilities of Online Platforms*. PE 653.782. https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653782/EPRS_STU(2021)653782_EN.pdf

[18] Tufekci, Z. (2017). *Twitter and Tear Gas: The Power and Fragility of Networked Protest*. Yale University Press.

[19] Morozov, E. (2013). *To Save Everything, Click Here: The Folly of Technological Solutionism*. PublicAffairs.

[20] Hart, H. L. A. (1961). *The Concept of Law*. Oxford University Press.