

REAL ESTATE REGISTRATION IN VISUAL LAW: AN EXPLORATORY STUDY TO OPTIMIZE ACCESS TO EXTRAJUDICIAL PROCEDURES

MATRÍCULA IMOBILIÁRIA EM VISUAL LAW: UM ESTUDO EXPLORATÓRIO PARA OTIMIZAR O ACESSO À EXTRAJUDICIALIZAÇÃO

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Abstract: *This study examines the application of Legal Design and Visual Law—methodologies derived from Design Thinking—as instruments for optimizing access to extrajudicial procedures within the Real Estate Registry, achieved through the visual and communicative redesign of property registration records. It proceeds from the hypothesis that adopting these methodologies can render registry documents more accessible and more comprehensible to users, thereby enhancing the effectiveness of communication and the transparency of extrajudicial services. The research adopts a mixed (qualitative and quantitative) approach, descriptive and empirical in nature, drawing on documentary research (the analysis of legislation and property registration records), bibliographic research (an interdisciplinary theoretical framework), and the development and evaluation of visual prototypes of the registration record. The method combines qualitative content analysis with empirical observation of the practical applicability of the models developed. The findings confirm the initial hypothesis, demonstrating that the application of Legal Design and Visual Law significantly improves the user experience and fosters substantive accessibility to registry information. As a contribution, the study proposes a new communicative approach to registry documents—particularly property registration records—bringing extrajudicial services into closer alignment with the principles of plain language, user-centered design, and public innovation. For future research, it*

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*suggests deepening the analysis within the context of the digital folio and the consolidation of electronic registries*³.

Keywords: Real Estate Registry; Legal Design; Visual Law; optimization of access to extrajudicial procedures; public innovation.

Summary: 1. Introduction; 2. The structure of the property registration record in the Real Estate Registry and user comprehension: between technical precision and accessibility; 3. Design Thinking, Legal Design, and Visual Law as tools for extrajudicial innovation; 4. Visual methodologies applied to the Real Estate Registry: the possibilities and limits of innovation in the property registration record; 5. From the traditional registration model to prototypes in Visual Law; 6. Final considerations; 7. References.

1 INTRODUCTION

The transformations brought about by technological progress and by new social dynamics have heightened the challenge of making the law more accessible and more functional for the citizen. Legal language, traditionally technical and exclusionary, often proves to be an obstacle to the full understanding of public acts, including in the context of extrajudicial registry and notary offices (*serventias extrajudiciais*)⁴.

Against this backdrop, the adoption of innovative communication strategies is essential to ensuring clarity, accessibility, and effectiveness in conveying information. It is here that methodologies such as Design Thinking, Legal Design, and Visual Law acquire relevance, for they propose restructuring legal processes and documents around the centrality of the user, with the aim of improving both the user's experience and their comprehension of the content conveyed.

The object of this study is to analyze the application of Legal Design and Visual Law—methodologies derived from Design Thinking—in structuring more comprehensible models of the property registration record (*matrícula*)⁵ in the Real Estate Registry (Registro de Imóveis)⁶, with a view to optimizing communicative efficiency and user comprehension.

³ The English version of this article was produced by translating the original Portuguese text with the assistance of the artificial-intelligence model Claude (Anthropic). The translation was reviewed for fidelity to the original; no information, data, or sources beyond those contained in the Portuguese version were added.

⁴ Brazilian notarial and public registry services (commonly known as *cartórios*) are public functions performed privately by individuals who hold a delegation from the State, obtained through a competitive public examination (Article 236 of the Federal Constitution). They cover real estate, civil registration, and notarial matters, among others — functions that in many countries are carried out by courts or government agencies.

⁵ In Brazilian law, the *matrícula* is the unique registry record opened for each individual property within the Brazilian Real Estate Registry. Structured under the real folio system, it consolidates the property's identification and the chronological history of all rights, transfers, and legal changes affecting it — in effect, the property's legal biography.

⁶ The Registro de Imóveis is the Brazilian public registry charged with registering rights over real property. It is operated as an extrajudicial (out-of-court) service by a private individual holding a delegation of this public function from the State, and its records are public and carry a legal presumption of validity.

The study proceeds from the hypothesis that implementing Legal Design and Visual Law, guided by the stages of Design Thinking, can make property registration records clearer, more accessible, and more comprehensible—including for lay users—thereby contributing to the improvement of extrajudicial services and to the realization of access to justice.

Beyond this general objective, the research pursues the following specific objectives: (i) to define and contextualize the methodologies of Design Thinking, Legal Design, and Visual Law; (ii) to identify the benefits of applying these approaches within the extrajudicial system; (iii) to propose alternatives for a visual, user-centered legal language; and (iv) to develop and evaluate prototype registration records based on these methodologies.

The approach adopted is mixed (qualitative and quantitative), descriptive and applied in nature, and combines three main procedures: a documentary survey of legislation and property registration records; an interdisciplinary bibliographic review of the theoretical foundations of the methodologies employed; and empirical research aimed at developing and evaluating prototype registration records built upon the principles of Design Thinking.

The method combines qualitative content analysis with structured empirical observation of the applicability of the visual models, seeking to gauge their functionality in practice and their contribution to improving the communicative quality of property registration records.

The results obtained indicate that applying Legal Design and Visual Law makes it possible to reorganize the informational structure of the registration record without compromising legal certainty, providing a more comprehensible, efficient, and user-centered experience.

The research further highlights the importance of aligning registry services with contemporary guidelines on public innovation, digital transformation, and access to information. Such practices are consistent with the social function of extrajudicial offices and with the need to strengthen citizenship through accessible legal communication.

The significance of this study lies in its capacity to reveal how structural and linguistic barriers within the registry system can compromise substantive access to legal information. By proposing solutions centered on the user's experience and grounded in the methodologies of Design Thinking, Legal Design, and Visual Law, the research contributes to registry practices that are more accessible, more comprehensible, and more compatible with the social function of extrajudicial activity.

2 THE STRUCTURE OF THE PROPERTY REGISTRATION RECORD IN THE REAL ESTATE REGISTRY AND USER COMPREHENSION: BETWEEN TECHNICAL PRECISION AND ACCESSIBILITY

Under Brazilian law, extrajudicial services—understood, within the system of public registries, as notarial and registry services—are performed in a private

capacity by delegation from the Government, and entry into the profession is conditioned upon success in a competitive public examination of credentials and qualifications, pursuant to Article 236 of the Federal Constitution (CF/88).⁷

This legal and institutional framework endows the acts performed by these delegate officers with a public character and significant legal effects, particularly as regards the production of records vested with public faith⁸. From this perspective, registry entries constitute records materialized in public documents that thereby enjoy a presumption of legitimacy, arising from the public faith attributed to the delegate officers. The documentary holdings of these offices secure the effectiveness of one of the foundational principles of notarial and registry activity: the principle of publicity^{9, 10}.

Among the various branches of registry activity, the Real Estate Registry Offices stand out, whose primary function is to confer publicity not only on the filed title but, above all, on the real property right¹¹ created or declared through the registration act. For this reason, legal scholarship classifies the legal nature of the Brazilian Real Estate Registry as a registry of rights.¹²

This registration is carried out by entering the relevant acts on the property's registration record (Book No. 2 – General Registry)¹³, in accordance with the real folio system (*fólio real*)¹⁴, which replaced the former model based on the personal folio, in which the organization of information centered on persons rather than on the property itself. With the adoption of the real folio system, the registry function came to concentrate on the property unit itself, affording greater systemic organization, security, and traceability.¹⁵

The registration record, then, is the core of the real folio system. In a single document, it consolidates all the relevant legal and factual information about the

⁷ BRASIL, Constituição (1988), Constituição da República Federativa do Brasil, Brasília: Congresso Nacional, 1988, Available at http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm, Accessed on October 25, 2024.

⁸ Public faith (*fé pública*) is the authority vested in notaries and registrars whereby the acts and documents they issue are presumed to be authentic and accurate and are opposable to third parties unless proven otherwise.

⁹ The principle of publicity holds that registered rights are public and may be asserted against third parties; it underpins the security afforded by the registry system.

¹⁰ CENEVIVA, Walter, *Lei dos Registros Públicos comentada*, 16. ed., São Paulo, Saraiva, 2005.

¹¹ A *direito real* (right in rem) is a civil-law right exercised directly over a thing and enforceable against everyone — ownership being the principal example — as opposed to a personal right, enforceable only against a specific person.

¹² FARIA, Bianca Castellar de, *Registro de Imóveis: Brasil x Estados Unidos – comparativo sobre a segurança, eficácia e custo*, Rio de Janeiro, Lumen Juris, 2023.

¹³ Book No. 2 (General Registry) is the registry book in which each property registry record (*matrícula*) is opened and in which real property rights and subsequent changes affecting those rights are entered.

¹⁴ The real folio system (*fólio real*) is the organizing principle of the modern Brazilian real estate registration system. Under this model, registration is organized around the individual property rather than the holder of rights, as in the earlier personal folio system (*fólio pessoal*). A single property record therefore consolidates the property's legal history.

¹⁵ LOUREIRO, Luiz Guilherme, *Registros públicos – Teoria e prática*, 9. ed. rev., atual. e ampl., Salvador, JusPodivm, 2018.

property, serving as the basis for subsequent acts of registration and notation¹⁶. Opening a record entails the transfer of data from the previous registration and inaugurates a dedicated repository of data reflecting the legal trajectory of the property and any changes it may undergo over time.¹⁷

The purpose of Book 2 – General Registry is to individualize the property and to bring together, in a centralized form, all of its entries,¹⁸ constituting “the inaugural act of the real folio, that is, the physical document in which all real property rights are registered and acts modifying those rights are noted.”¹⁹

From these premises, it can be observed that the registration record not only fulfills a technical-legal function but also operates as a means of legal communication between the State and society. It is through the record that essential legal information about properties is conveyed; it is therefore the principal link between the formal rigor of the registry structure and the user’s need for understanding.

Thus, beyond consolidating registry acts, the content of the registration record gives material form to the publicity of real property rights, fulfilling a dual function: ensuring static legal certainty²⁰, by protecting formally registered ownership, and prioritizing dynamic legal certainty, by enabling the secure circulation of real property in the market.²¹

As an instrument of legal transparency, the registration record sets out ownership, the description of the property, and the legal changes to which it may be subject,²² reinforcing its role not only in formalizing rights but also in clearly communicating the legal and proprietary situation to the interested public.

The certificate²³, in turn, is the instrument through which this information is externalized, conferring authenticity and evidentiary force on the content of the registration. In reprographic form, it must reproduce the content of the registration record in full, dispensing with any addition other than the certification, the date of issuance, and the period covered by the searches.²⁴

¹⁶ Brazilian registry law distinguishes a registro — the registration of a right, such as a transfer of ownership or a mortgage — from an averbação, a marginal notation recording a fact or change affecting the property or the parties, such as a name change or the cancellation of a charge.

¹⁷ ORLANDI NETO, Narciso, Registro de Imóveis, 1. ed., Rio de Janeiro, Forense, 2023.

¹⁸ ALVIM NETO, José Manuel de Arruda, CLÁPIS, Alexandre Laizo, CAMBLER, Everaldo Augusto, Lei de Registros Públicos comentada, 2. ed., Rio de Janeiro, Forense, 2019.

¹⁹ EL DEBS, Martha, Legislação Notarial e de Registros Públicos – Comentada artigo por artigo, 6. ed. rev., atual. e ampl., São Paulo, JusPodivm, 2023.

²⁰ Brazilian scholarship distinguishes static legal certainty — protecting the holder of a formally registered right — from dynamic legal certainty — ensuring that third parties may rely on the registry in order to transact safely.

²¹ LOUREIRO, op. cit.

²² ALVIM NETO et al., op. cit.

²³ A certidão is the official certificate issued by the registry reproducing the content of a record; it is the ordinary means by which registry information is disclosed to the public — so-called indirect publicity.

²⁴ ORLANDI NETO, op. cit.

In this way, the publicity of registry acts is ensured through the issuance of certificates, whose nature is classified as indirect publicity. In exercising this function, the registrar is bound by the principle of strict legality²⁵ and is forbidden from any subjective interpretation concerning the legal situation of the rights holders.²⁶

The merely formal publicity of the registry document is not enough, however. It is essential that the user understand the legal content it sets out. Effective access to legal information requires more than the mere availability of the document: it requires clarity, precision, and intelligibility. Substantive comprehension is achieved only when the recipient is able, unaided, to draw clear and reliable answers from the document, without the need for technical mediation or the decoding of an overly specialized language.

Therefore, although it is invested with technical and legal density, the registration record must also be understood through a communicative lens. The way its content is presented can directly influence the recipient's comprehension—and, consequently, their very “access to a just legal order.”²⁷²⁸ At this point of tension between normative precision and informational accessibility, it becomes imperative to analyze how the structure of the registration record affects the user's experience, and how the registry system can evolve without surrendering legal certainty, incorporating solutions that favor a more functional, clear, and inclusive model.

The clarity and accessibility of registry information are central to the effectiveness of the system. They promote not only legal certainty but also a stronger relationship of trust between the citizen and the institution. To this end, the manner in which information is conveyed must likewise evolve, becoming better suited to contemporary communication demands.

Here, the adoption of a simpler, user-centered language, together with the improvement of the document's structure, emerges as an indispensable tool of inclusion and democratization. An accessible legal language strengthens the social function of registration, integrating the citizen into the legal universe with greater autonomy and clarity.

Information visualization—the process of graphically representing data and meanings—presents itself as an essential aid to understanding complex legal content.²⁹ By converting legal data into a visual and accessible language, it makes the information easier for the user to comprehend and retain.

²⁵ Under the principle of strict legality, the registrar examines each title solely for its conformity with the law (the *qualificação registral*) and may not add subjective interpretations regarding the parties' legal situation.

²⁶ FARIA, op. cit.

²⁷ WATANABE, Kazuo, *Acesso à ordem jurídica justa (conceito atualizado de acesso à justiça)* – processos coletivos e outros estudos, Belo Horizonte, Del Rey, 2019.

²⁸ Coined by the Brazilian jurist Kazuo Watanabe, “access to a just legal order” broadens the classic notion of access to justice beyond access to the courts, to include the effective and comprehensible enjoyment of one's rights.

²⁹ MCLACHLAN, Scott, WEBLEY, Lisa, “Visualisation of Law and Legal Process: An Opportunity Missed”, *Information Visualization*, v. 20, n. 2–3, p. 192–204, 2021, Available at https://www.mclachlandigital.com/lawvis/_include/img/work/full/LawDataVis0.4.pdf, Accessed on January 4, 2025.

Holtz and Coelho³⁰ prompt an important reflection: “What if we could do away with the excess of technical words and expressions, pairing a text with content that is appropriate and tailored to each user?”

In this vein, the National Council of Justice (Conselho Nacional de Justiça – CNJ)³¹ has established guidelines aimed at realizing substantive access to justice—access that goes beyond the merely formal plane and includes, among its objectives, generating greater accessibility, prioritizing the right to clear information, and advancing legal knowledge in its substantive dimension.

CNJ Resolution No. 325/2020, which defines the National Strategy of the Judiciary for the 2021–2026 period, includes among its goals the adoption of more accessible communication strategies, with simple, swift, and objective language, integrating technological innovations to improve judicial and extrajudicial services.³²

CNJ Resolution No. 347/2020, in the sole paragraph of its Article 32, recommends the use, whenever possible, of Visual Law resources in order to achieve greater clarity in documents and workflows in digital environments.³³ CNJ Resolution No. 395/2021, in turn, reinforces this guideline by encouraging institutional modernization focused on the user, suggesting a qualitative analysis of the impact of these directives.³⁴

CNJ Recommendation No. 144/2023 directs courts and councils to adopt simple, clear, and accessible language, using visual elements that aid the comprehension of information.³⁵ In line with this proposal, the CNJ launched the National Pact of the Judiciary for Plain Language, calling on the bodies of the Judiciary to develop strategies aimed at encouraging the use of direct, comprehensible language in judicial acts and in institutional communication.³⁶

³⁰ HOLTZ, Ana Paula Ulandowski, COELHO, Alexandre Zavaglia, *Legal Design/Visual Law: comunicação entre o universo do Direito e os demais setores da sociedade*, São Paulo, Thomson Reuters Brasil, 2020, E-book, Available at <https://thomsonreuters.com.br/content/dam/openweb/documents/pdf/Brazil/white-paper/legal-one-e-book-visual-law-2020.pdf>, Accessed on February 15, 2025.

³¹ The National Council of Justice oversees the administrative and financial conduct of the Brazilian Judiciary and issues binding resolutions and non-binding recommendations addressed to courts and to notarial and registry services.

³² BRASIL, Conselho Nacional de Justiça, Resolução n.º 325, de 29 de junho de 2020, Dispõe sobre a Estratégia Nacional do Poder Judiciário 2021–2026 e dá outras providências, Available at <https://atos.cnj.jus.br/atos/detalhar/3365>, Accessed on December 7, 2024.

³³ Idem, Resolução n.º 347, de 13 de outubro de 2020, Dispõe sobre a Política de Governança das Contratações Públicas no Poder Judiciário, Available at <https://atos.cnj.jus.br/atos/detalhar/3518>, Accessed on February 25, 2025.

³⁴ Idem, Resolução n.º 395, de 07 de junho de 2021, Institui a Política de Gestão da Inovação no âmbito do Poder Judiciário, Available at <https://atos.cnj.jus.br/atos/detalhar/3973>, Accessed on February 23, 2025.

³⁵ Idem, Recomendação n.º 144, de 25 de agosto de 2023, Recomenda aos Tribunais que implementem o uso da linguagem simples nas comunicações e atos que editem, Available at <https://atos.cnj.jus.br/atos/detalhar/5233>, Accessed on February 21, 2025.

³⁶ Idem, Pacto Nacional do Judiciário pela Linguagem Simples, nov. 2023, Available at <https://www.stj.jus.br/sites/porta/paginas/Comunicacao/Noticias/2024/24032024-STJ-na-luta-contra-o-juridiques-e-por-uma-comunicacao-mais-eficiente-com-a-sociedade.aspx>, Accessed on May 10, 2025.

The National Pact of the Judiciary for Plain Language thus represents the concrete realization of the CNJ's strategic efforts to promote—as envisaged in the National Strategy of the Judiciary 2021–2026—a language that is clearer and more comprehensible to the lay public, reinforcing transparency and the effectiveness of access to justice.³⁷

It is precisely here that the idea of access to a just legal order, as advocated by Watanabe,³⁸ gains strength. Plain language, as a communication technique, places the reader at the center of the process, affording direct, clear, and efficient access to the content of the document.³⁹

Access to justice is a fundamental right and a precondition for the realization of all other rights. Its absence, or its substantial limitation, hollows out citizenship itself.⁴⁰ The barriers to access to justice can be manifold: economic, cognitive, linguistic, or legal. When combined, such barriers deepen exclusion, preventing the exercise of rights in a truly substantive sense.⁴¹

Along these lines, effective access to justice demands inclusive policies, structured around creative measures that counter inequalities. The law, therefore, must adopt a language that welcomes rather than repels.⁴² This orientation calls for an interdisciplinary posture, in which language, design, and technology join legal structures to remedy historical gaps and broaden the reach of information.

In the context of extrajudicial offices, and particularly the Real Estate Registry, one of the greatest obstacles to substantive access to justice lies in the users' effective comprehension of registry acts. As Teresa Arruda Alvim observes, “access to justice also means the possibility of understanding legal discourse.”⁴³

The way registry content is expressed can function as a bridge—or as a barrier—between the citizen and legal information. Rendering that content technically yet in clear language is a fundamental challenge in the present age,

³⁷ BRASIL, Superior Tribunal de Justiça, “STJ na luta contra o juridiquês e por uma comunicação mais eficiente com a sociedade”, March 24, 2024, Available at <https://www.stj.jus.br/sites/portalt/Paginas/Comunicacao/Noticias/2024/24032024-STJ-na-luta-contra-o-juridiques-e-por-uma-comunicacao-mais-eficiente-com-a-sociedade.aspx>, Accessed on May 10, 2025.

³⁸ WATANABE, op. cit.

³⁹ TESHEINER, André Luís de Aguiar, “Linguagem simples e Visual Law”, in COELHO, Alexandre Zavaglia; SOUZA, Bernardo de Azevedo e (orgs.), *Legal Design e Visual Law no Poder Público*, São Paulo, Thomson Reuters Brasil, 2021.

⁴⁰ CAPPELLETTI, Mauro, GARTH, Bryant, *Acesso à justiça*, trad. Ellen Gracie Northfleet, Porto Alegre, Sérgio Antônio Fabris, 1988.

⁴¹ SARDINHA, Cristiano de Lima Vaz, *Cartórios e acesso à justiça – a contribuição das serventias extrajudiciais para a sociedade contemporânea como alternativa ao Poder Judiciário*, 3. ed. rev., atual. e ampl., Salvador, JusPodivm, 2021.

⁴² CENTENO, Murillo Heinrich, “O impacto dos recursos visuais no âmbito jurídico”, in SOUZA, Bernardo de Azevedo e; OLIVEIRA, Ingrid Barbosa (orgs.), *Visual Law: como os elementos visuais podem transformar o Direito*, 2. ed. ver., atual. e ampl., São Paulo, Thompson Reuters Brasil, 2022.

⁴³ ALVIM, Teresa Arruda, “Acesso à Justiça passa pelo fim da linguagem ‘empolada’ no Direito”, December 16, 2017, Available at <https://www.conjur.com.br/2017-dez-16/teresa-alvim-acesso-justica-passa-fim-linguagem-empolada/>, Accessed on May 7, 2025.

which prizes democracy. For legal language ought not to be an instrument of domination or obscurity. Its primary function is to communicate. Excessively ornate and inaccessible styles not only undermine communication but also generate exclusion, foster elitism, and distance the law from its public and social calling.⁴⁴

Making legal documents easier to read and understand is not merely a matter of communicative efficiency: it is an act of inclusion, for language is also power, and to obstruct its comprehension is to reinforce mechanisms of exclusion.⁴⁵ Promoting plain language in the Real Estate Registry is therefore not just about improving legal text—it is about ensuring a public service that is accessible, transparent, and committed to citizenship.

And it is precisely in this setting that the methodologies of Design Thinking, Legal Design, and Visual Law come to be regarded as strategic tools of transformation, for they make it possible not only to simplify language but also to rethink the visual and communicative structure of registry documents. These approaches do not replace legal content; they reorganize it, making its transmission more effective, more intuitive, and better aligned with the contemporary user's need for clarity and inclusion.

3 DESIGN THINKING, LEGAL DESIGN, AND VISUAL LAW AS TOOLS FOR EXTRAJUDICIAL INNOVATION

Design Thinking represents a cognitive paradigm based on a mixed (exploratory and empirical) human-centered approach, oriented toward the creative solution of problems and toward innovation driven by empathy, technical feasibility, and economic sustainability. It is a method that seeks to transform complex challenges into concrete design opportunities, fostering technologically and commercially viable solutions.⁴⁶

Design Thinking makes it possible to broaden the reach of design-based thinking by integrating it with other fields of knowledge, equipping people—even those outside the field of design—to solve problems in a creative and functional way.⁴⁷ This methodology stimulates the development of organized, innovative, and empathetic solutions through a continuous process of learning, ideation, and adaptation.⁴⁸

Barbaroux describes five fundamental stages of this approach: (i) empathizing, which aims to understand the user's point of view through interviews or observation; (ii) synthesizing, by defining the problem on the basis of the

⁴⁴ Ibidem.

⁴⁵ WAMBIER, Teresa Arruda Alvim, RODRIGUES, Luiz, “Pequeno ensaio sobre a função da linguagem e o fenômeno jurídico”, *Revista Jurídica Consulex*, ano XI, n. 240, January 15, 2007.

⁴⁶ BROWN, Tim, “Design Thinking”, *Harvard Business Review*, v. 86, n. 6, p. 85–92, jun. 2008, Available at <https://readings.design/PDF/Tim%20Brown,%20Design%20Thinking.pdf>, Accessed on October 7, 2024.

⁴⁷ Idem, *Design Thinking: uma metodologia poderosa para decretar o fim das velhas ideias*, Alta Books, 2020.

⁴⁸ MAIA, Ana Carolina, NYBO, Erik Fontenele, CUNHA, Mayara, *Legal Design – criando documentos que fazem sentido para os usuários*, São Paulo, Saraiva, 2020, E-book.

systematized data collected; (iii) ideating, which seeks to generate creative solutions in a collaborative, multidisciplinary environment; (iv) prototyping, the stage in which an initial artifact is developed to be tested; and (v) testing the product developed with users, whose feedback makes it possible to adjust or refine the prototype⁴⁹.

This methodology balances reason and intuition, play and formalism, feasibility and empathy, constituting a genuine driving force of innovation.⁵⁰ By following these stages, it is possible to create a dynamic and iterative process that privileges the user's experience from the conception of the solution through to its implementation⁵¹.

In the present study, the stages of Design Thinking were applied to three prototype registration records in the Real Estate Registry, validated through usability analysis.

Design Thinking can guide the creation and rethinking of legal services and processes through an empathetic approach to users' needs, stimulating divergent thinking to generate multiple ideas and adopting rapid prototyping—with users themselves participating from the earliest versions—as a way of validating solutions in a real-world context⁵².

In the legal field, Design Thinking finds concrete expression in Legal Design, which seeks to reshape legal services and documents from the standpoint of the user's experience. For Margaret Hagan, Legal Design applies the methods of design to legal practice with the aim of creating systems that are clearer, more comprehensible, and more accessible.⁵³ It is an intersection of design, technology, and law, preserving the human-centered approach as an essential foundation⁵⁴.

Legal Design constitutes a methodological, procedural, and instrumental environment geared toward building optimized legal experiences.⁵⁵ Its essence lies in collaboration among people with different areas of expertise to identify real legal problems, test prototypes, and validate them from the perspective of the target audience⁵⁶, amounting to a new mindset in the legal field⁵⁷.

⁴⁹ BARBAROUX, Marine, *Untangling UX, Part 1: Design Thinking vs UCD*, Cambridge Consultants, 2016, Available at <https://cambridgeconsultants.com/us/node/33036>, Accessed on February 1, 2025.

⁵⁰ MOOTEE, Idris, *Design Thinking for Strategic Innovation: What They Can't Teach You at Business or Design School*, John Wiley & Sons, 2013.

⁵¹ LEINER, Gabrielle Santangelo, DYKSTRA, Mayna Marchiori de Moraes, CRUZ, Fabrício Bittencourt da, "Aplicação de Legal Design e Visual Law na promoção do acesso à justiça no Brasil", *Revista Internacional Consinter de Direito*, v. 10, n. 18, p. 79–94, 1º sem. 2024, Available at <https://revistaconsinter.com/index.php/ojs/article/view/499>, Accessed on February 27, 2025.

⁵² LEINER; DYKSTRA; CRUZ, op. cit.

⁵³ HAGAN, Margaret, *Law by Design*, 2017, E-book, Available at <https://lawbydesign.co>, Accessed on February 17, 2025.

⁵⁴ BROWN, "Design Thinking", op. cit.

⁵⁵ COELHO, Alexandre Zavaglia, "Legal Design e Visual Law: conceitos e sua aplicação pelo Poder Público", in COELHO, Alexandre Zavaglia; SOUZA, Bernardo de Azevedo e (orgs.), *Legal Design e Visual Law no Poder Público*, São Paulo, Thomson Reuters Brasil, 2021.

⁵⁶ HOLTZ, Ana Paula Ulandowski, "O que é Legal Design?", *Ana Holtz Legal Design*, 1 mai. 2019, Available at <https://www.anaholtz.com.br/post/o-que-e-legal-design>, Accessed on May 17, 2025.

The incorporation of visual elements into legal products or services developed on the basis of Legal Design strengthens the effectiveness of legal communication and broadens the accessibility of the law for everyone; from this arises Visual Law, devoted to applying visual elements to legal communication.⁵⁸

Whereas Legal Design operates behind the organizational scenes to structure solutions, Visual Law focuses on the delivery of information, translating complex content into visual formats that are more accessible to the user.⁵⁹ The effective application of these methodologies requires interdisciplinary cooperation between designers and jurists.⁶⁰

After all, Visual Law presupposes an approach nourished as much by the classical foundations of the Legal and Linguistic Sciences as by recent contributions from Technology and Design, integrating these forms of knowledge to refine legal practice.⁶¹

Visual Law incorporates visual strategies to make the legal message clearer, more comprehensible, and more impactful.⁶² To achieve this communicative functionality, the visual resources must not merely enrich the document aesthetically but contribute directly to its intelligibility.⁶³

In this sense, Legal Design and Visual Law are not merely techniques for aesthetic or narrative enhancement: they are structural tools for modernizing and democratizing access to legal information. Both promote the redesign of language and form, bringing legal documents closer to the ordinary citizen and contributing to substantive access to justice.

In the extrajudicial context, and especially within the real estate registry sphere, the application of these methodologies represents an innovative strategy of institutional modernization. By reorganizing the way documents are presented—from a functional, visual, and user-centered perspective—it becomes possible to raise the standards of efficiency, transparency, and accessibility in Real Estate Registry Offices.

Incorporating Legal Design and Visual Law makes it possible to improve the language, structure, and form of registry acts, yielding tangible gains in the legibility

⁵⁷ LEINER; DYKSTRA; CRUZ, op. cit.

⁵⁸ BRITTO, Melina Carla de Souza; CRUZ, Fabrício Bittencourt da, “Visual Law e inovação: uma nova percepção para o processo eletrônico no direito brasileiro”, *Humanidades & Inovação*, v. 8, p. 226–234, 2021.

⁵⁹ COELHO, op. cit.

⁶⁰ JI, Xiaoyu, *Where design and law meet – An empirical study for understanding Legal Design and its implication for research and practice*, 2019, Dissertação (Mestrado em Design Industrial e Colaborativo), Escola de Artes, Design e Arquitetura, Universidade Aalto, Helsinki, 2019.

⁶¹ SANTOS, Bruno Rabelo dos; CRUZ, Fabrício Bittencourt da; DINIZ, Cláudio Smirne, “Natureza jurídica da Visual Law produzida pelo Poder Judiciário no Brasil”, *Humanidades & Inovação*, v. 10, p. 24–34, 2023.

⁶² ROSA, Alexandre Moraes da, MATTAR, Fernanda Badalotti Benvenuti, “Visual Law: como melhorar a comunicação forense”, *Consultor Jurídico*, January 2, 2024, Available at <https://www.conjur.com.br/2024-jan-02/visual-law-como-melhorar-a-comunicacao-forense/>, Accessed on January 14, 2025.

⁶³ MAIA, et. al., op. cit.

and legal certainty of documents. The result is extrajudicial services that are clearer, more reliable, and more responsive to the needs of the contemporary user.⁶⁴

In light of these theoretical contributions, it is proposed to investigate, in a descriptive and empirical manner, the extent to which the use of these methodologies is compatible with the normative and structural limits of the real folio system, without compromising legal certainty. The following sections discuss the challenges and possibilities of these methodological innovations, exploring the potential and the limits of the visual modernization of the registration record as an instrument for realizing access to extrajudicial procedures.

4 VISUAL METHODOLOGIES APPLIED TO THE REAL ESTATE REGISTRY: THE POSSIBILITIES AND LIMITS OF INNOVATION IN THE PROPERTY REGISTRATION RECORD

The modernization of the property registration record demands attention not only to technical and communicative aspects but also to the normative framework that governs its structure. At the federal level, Law No. 6,015/1973⁶⁵ stands out: it lays down the general guidelines for public registries and establishes the essential elements of the registration record. At the state level, extrajudicial services are subject to the Codes of Rules for Extrajudicial Affairs, issued by the Internal Affairs Departments of the Courts of Justice (Corregedorias-Gerais dos Tribunais de Justiça)⁶⁶.

These Codes, established through administrative orders, reflect the exercise of the states' residual legislative competence. According to the case law of the Federal Supreme Court⁶⁷, although the states may not innovate as to the requirements of validity, form, or content of registry acts—a matter within the exclusive competence of the Union—such state rules regulate procedural and operational aspects of registry practice⁶⁸ and may therefore permit, and even

⁶⁴ NUNES, Dierle, RODRIGUES, Larissa Holanda Andrade Rodrigues, “O contraditório e sua implementação pelo Design, Design Thinking, Legal Design e Visual Law como abordagens de implementação efetiva da influência”, in NUNES, Dierle; LUCON, Paulo Henrique dos Santos; WOLKART, Erik Navarro (orgs.), *Inteligência Artificial e direito processual – os impactos da virada tecnológica no direito processual*, Salvador, JusPodivm, 2020.

⁶⁵ Law No. 6,015/1973, the Public Registries Act (Lei de Registros Públicos), is the federal statute governing Brazil's public registries and setting out the essential elements of the property record.

⁶⁶ In each Brazilian state, the Internal Affairs Department of the Court of Justice (Corregedoria-Geral da Justiça) supervises notarial and registry services and issues, through administrative orders (provimentos), a Code of Rules (Código de Normas) governing their day-to-day operation.

⁶⁷ The Federal Supreme Court (Supremo Tribunal Federal) is Brazil's highest court for constitutional matters, and a Direct Action of Unconstitutionality (Ação Direta de Inconstitucionalidade) is a proceeding for the abstract review of a statute's constitutionality. Under the Constitution, only the Union may legislate on the validity of registry acts, while the states retain a residual competence over procedural detail.

⁶⁸ The legislative competence to establish requirements for the validity of notarial and registry acts belongs exclusively to the Union, under Article 22, item XXV, of the Federal Constitution. The member states hold residual legislative competence to create ancillary obligations for providers of notarial and registry services, provided that such obligations do not amount to the creation or alteration of the national rules concerning the

encourage, innovations in the graphic presentation and formatting of registration records, provided that the prevailing federal legislation is respected.

In this context, it is necessary to identify the points of tension between the prevailing legal framework and the possibilities for innovation. Even if certain legal requirements appear to be obstacles to the graphic and structural reformulation of registration records, systematic analysis reveals room for flexibility in adopting visual resources and more accessible communication strategies, without compromising legal certainty or altering the essential elements of the registry act.

Traditional practices within real estate registry offices also pose challenges to innovation. Resistance may come from delegate officers accustomed to conventional methods, or from internal affairs departments and supervising judges. It is therefore important to consider both the normative frameworks and the institutionalized practices when seeking to overcome obstacles to the modernization of registration records.

This analysis aims to map constraints and to explore the possibilities for adaptation within legal limits. In this respect, the study proceeds from the hypothesis that there is normative room for visual innovations without compromising legal certainty. By understanding the existing boundaries and opportunities, it becomes feasible to devise strategies for making registry documents more accessible and comprehensible, promoting broader, more efficient, and more substantive access to extrajudicial justice.

In real estate registry offices, the recording of the registration record, the registrations, and the notations (Book 2) is governed by Law No. 6,015/73 (Article 231),⁶⁹ which requires a narrative and chronological entry at the top of the page, with a sequence number, date, description of the property, identification of the owner, and reference to the previous registration.⁷⁰

Although the recording must follow a narrative structure, in accordance with the regulatory provisions of each Brazilian state, this directive does not preclude the application of visual and structural improvements. At first glance, it might seem that elements such as maps and tables would not be permitted, as they would run counter to the principle of strict legality. Innovations designed to broaden the comprehension of legal content and facilitate access to extrajudicial procedures, however, are not only feasible but have been progressively encouraged by the Government, especially by the Judiciary.

validity, form, content, or effectiveness of notarial and registry acts (BRASIL, Supremo Tribunal Federal, Ação Direta de Inconstitucionalidade n. 5.663, Rel. Min. Luiz Fux, Tribunal Pleno, julgado em 30 ago. 2019, publicado em 16 set. 2019, Available at <https://redir.stf.jus.br/paginadorpub/paginador.jsp?docTP=AC&docID=754406331>, Accessed on May 14, 2025).

⁶⁹ BRASIL, Lei n.º 6.015, de 31 de dezembro de 1973, Dispõe sobre os registros públicos e dá outras providências, Available at http://www.planalto.gov.br/ccivil_03/leis/l6015compilada.htm, Accessed on September 7, 2024.

⁷⁰ LOUREIRO, op. cit.

It is important to stress that the proposal of this study is not to alter the essential elements of the registration record, but to improve the way information is presented through visual resources and accessible language. The aim is to generate greater public value, democratize access, and increase the efficiency of registry communication, without departing from the procedural rules in force.

A quality registry service is one that adopts standards consonant with modernity and technological progress—something that applies to the recording of legal documents as well. The rules do not mandate the use of technical terms or inflexible structures, which leaves room for additions such as headings, visual highlights, and a more accessible language, without any normative violation.

As for the recording itself, the Code of Rules for Extrajudicial Affairs of the Internal Affairs Department of the Court of Justice of the State of Paraná (Articles 41 and 43)—which guided the research and the development of the prototypes—requires the use of black ink; fonts at least the size of Times New Roman 13 or Arial 12; the recording of acts spelled out in full and signed in indelible black or blue ink, with the signatory's full name written legibly beside or beneath each signature; and prohibits filled-in or altered interlineations that affect essential parts of the act.⁷¹

The rules in question govern the insertion of acts into the registry's own books, but they impose no restrictions on the graphic presentation of the registration record or even on its enhancement so as to generate greater public value. Accordingly, a new formatting of the elements described in the registration record, the insertion of visual resources such as colored maps, and improvements to the layout may all be adopted. In the State of Paraná, indeed, Article 540 of the Code of Rules expressly authorizes the inclusion of illustrative maps in registration records, provided they are prepared by a qualified professional and serve to represent the description of the property with precision.⁷²

From this perspective, comparing the federal legislation with the Paraná rules shows that there is no prohibition on restructuring the registration record to make it more accessible, provided the formal requirements are observed. Visual improvement is therefore not only possible but also desirable, as long as the integrity of the essential elements of the act is preserved. Reinforcing this orientation, the Code of Rules of the State of Paraná establishes that clear, precise, and logical language must be observed in drafting acts, while preserving the chronological order of the registrations.⁷³

Thus, although the traditional model is widely accepted, there is considerable room for improvement through the methodologies of Design Thinking, Legal Design, and Visual Law, with a focus on improving the communication of legal

⁷¹ ESTADO DO PARANÁ, Corregedoria-Geral da Justiça, Código de Normas do Foro Extrajudicial – CNFE, Provimento nº 249, de 30 de setembro de 2013, Corregedoria-Geral da Justiça do Paraná, Curitiba, TJPR, 2025, Available at <https://www.tjpr.jus.br/codigo-de-normas-foro-extrajudicial>, Accessed on May 10, 2025.

⁷² Ibid.

⁷³ Ibid.

information. Effective language should communicate and not conceal; confusing and ornate texts are dysfunctional in a world that demands agility and clarity.⁷⁴

The logical organization and concise presentation of the elements of the registration record help users grasp registry acts more quickly and accurately. This clarity enhances legal certainty and reduces interpretive errors, fostering a more effective delivery of the service.

It is essential to note that the proposed improvements can be applied only to new acts. Physical registration records prepared under the regime of Law No. 6,015/1973 must retain their original form, by force of legal certainty. Even in digitized registration records, the older entries must be preserved exactly as originally drafted.

Although the registration record is digitized and certificates are issued digitally, the real folio system is not yet fully electronic. The transition to the digital folio is already in sight, however, and it will place even greater value on how data are organized and will make visual strategies all the more necessary and feasible.

In this context, the modernization of registration records does not entail a breach of legal certainty but rather an adaptation to the new demands for clear, efficient, and accessible communication. Introducing visual and structural elements, as well as a more comprehensible language, is compatible with the legal frameworks and contributes to democratizing access to legal information.

The traditional model of the registry record therefore constitutes fertile ground for innovations that, within the limits of the applicable normative structure, employ the tools of Design Thinking, Legal Design, and Visual Law in pursuit of a significant evolution in the way records are prepared by extrajudicial services.

5 FROM THE TRADITIONAL REGISTRATION MODEL TO PROTOTYPES IN VISUAL LAW

The normative requirements shape the traditional registration model, whose basic structure is adopted nationwide and reproduced in a sequential, continuous form, almost always without visual resources to ease reading. The abundance of clustered information, with no clear divisions, hampers assimilation and undermines the accessibility of the content.

Although each office has its own structural peculiarities, it is evident that the current standard of the registration record poses obstacles to comprehension, especially for users without legal training. The way the data are displayed can compromise the transparency and clarity of the registry act.

The absence of visual breaks, titles, or subtitles, combined with the predominance of lengthy passages of text, makes it difficult to locate specific information and renders reading exhausting.

⁷⁴ ALVIM, Teresa Arruda, “A linguagem jurídica – Um desabafo”, December 16, 2020, Available at <https://www.migalhas.com.br/depeso/337683/a-linguagem-juridica--um-desabafo>, Accessed on May 7, 2025.

Another critical point lies in the cognitive overload caused by long, tightly spaced paragraphs. The lack of sectional organization and the density of information cause disorientation and fatigue for the reader, undermining the effectiveness of the document.

Essential information—such as the owner's name, the transaction value, the previous registration record, or important dates—often appears interwoven throughout the text, without visual hierarchy or graphic emphasis. The absence of formatting resources compromises the intelligibility of the content and the reliability of the reading.

The description of the property, including its boundaries, is generally drafted in a strictly sequential and technical manner, without any demarcation of its central elements. The lack of visual support, such as maps or even tables, impairs the spatial visualization of the property and of the other information relevant to registry acts in the broad sense.

The redundancy of information and the repetition of data increase the volume of text without a proportionate benefit to comprehension.

The excessively technical language and specialized terms used in registration records likewise pose obstacles to understanding registry content. Terminological complexity removes the general population from comprehension, compromising the transparency of the act and restricting effective access to extrajudicial justice.

By way of illustration, a traditional model of registration record drawn from the Judicial District of Pirai do Sul, Paraná⁷⁵, is presented through a digital resource in QR-code form;⁷⁶ it reflects the established practice of sequential recording with low informational accessibility.

It can therefore be affirmed that the current structure of the registration record compromises clarity and accessibility, and that adopting Design Thinking, Legal Design, and Visual Law can enhance transparency and legal-registry communication, contributing to the strengthening of registry citizenship.

What is proposed, then, is the organizational redesign of the real estate registration record, with a view to achieving greater clarity and accessibility without altering its normative essence.

The application of Design Thinking made it possible to diagnose the real needs of the users of the registry service. During the empathy stage—over the course of 15 months of participant observation at the Real Estate Registry Office of Pirai do Sul, Paraná—recurring difficulties of comprehension were identified, including among lawyers and legal practitioners.

⁷⁵ A comarca (judicial district) is the basic territorial unit of judicial organization in Brazil, comprising one or more municipalities.

⁷⁶ Traditional property registration record, accessible via the QR code below. Accessed on May 16, 2025.



The main barriers identified included excessively technical language, the absence of an organized visual structure, the presence of dense passages of text, and the difficulty of locating essential data.

These findings grounded the definition of the problem in the synthesis stage, in which they were organized into recurring patterns, defining the problem statement around the need to simplify language, reorganize structure, and give visual prominence to essential information.

The ideation stage was developed progressively, drawing on informal suggestions from users and from the office's staff. The first prototype proposal focused on a registration record for a sale-and-purchase with a resolutive clause, whose improvements sought to alleviate the main problems identified. This prototype introduced innovations such as headings, more efficient spacing, objective drafting, and better segmentation of content, as demonstrated in Prototype 1 of this study via the QR code.⁷⁷

Among the main changes are the following: a clearer demarcation of the property and of the owners, the individualization of the property's registration data, the deliberate use of emphasis elements (such as boldface and uppercase), and the adoption of a legible font and dividing lines between acts.

The testing stage included an informal evaluation by users and legal practitioners, who reported greater clarity and fluency in reading, as well as ease in identifying the main data. The new structure was well received and considered more functional.

Next, ideation was resumed with the involvement of registrars and judges active in the field. Among the critical points identified were the need for attention to the principle of legal certainty and the risks associated with interlineations or intermediate paragraphs.

To preserve the reliability of the document, it was suggested that characters (such as hyphens or asterisks) be placed between blocks of text. In addition, it was recommended that an illustrative plan be included in the registration record and that information such as the hash code of the National Central Registry of Asset Unavailability (Central Nacional de Indisponibilidade de Bens – CNIB)⁷⁸—deemed unnecessary—be removed.

⁷⁷ Prototype 1, accessible via the QR code below. Accessed on May 16, 2025.



⁷⁸ The CNIB is a national electronic database recording judicial and administrative orders that render a person's assets legally unavailable (for instance, barring their sale), which registrars must consult and reflect in the record.

The importance of visually highlighting any real encumbrances or restrictions on the property was also noted, so as to facilitate their identification and interpretation. Drawing on these suggestions, Prototype 2 was developed, incorporating a map of the property, linguistic improvements, textual reworking, and the insertion of graphic elements, consolidating the visual perspective as a tool for democratizing legal information, as can be seen via the QR code.⁷⁹

In a further round of testing with the users of the Pirai do Sul Real Estate Registry service, however, it was found that the use of characters in the intervals made the document less fluid. Likewise, the analysis of registration records from other offices indicated a growing tendency to use paragraphs, even in the description of the property, in preference to the auxiliary characters.

In light of this, Prototype 3 discarded the superfluous characters, refined the layout, and adopted the Arial Nova Light 13 font for the text. In addition, the property's registration data were reorganized, tables were included to present financial data, and color was applied to the map and to the coat of arms of the Republic.

Cooperation with design professionals brought relevant contributions, such as the refinement of the layout, the use of functional spacing, and the polishing of the document's aesthetics. The result was a model that is more pleasing, intuitive, and suited to the demands of contemporary users, culminating in the stabilization of Prototype 3 as the final product (available in this study via the QR code).⁸⁰

Compared with the traditional model, the prototype developed shows potential for improving the organization of information. The clearer, more segmented graphic arrangement, the inclusion of separators, and the emphasis on essential data help make the content more accessible, favoring smoother reading and reducing possible misinterpretations.

In addition, the simplification of language lowers cognitive barriers, allowing comprehension by users unfamiliar with legal vocabulary. The clarity in the spatial

⁷⁹ Prototype 2, accessible via the QR code below. Accessed on May 16, 2025.



⁸⁰ Prototype 3, accessible via the QR code below. Accessed on May 16, 2025.



description of the property and the integration of maps enhance informational precision.

The tables used for financial data, such as taxes and fees, aid in the organization and rapid visualization of the figures. This format eases reading, improves navigability, and gives prominence to the essential content of the document.

Such changes not only improve the aesthetics of the document but also carry significant practical implications: they facilitate consultation, reduce errors, and provide greater legal certainty, while strengthening the bond between the public service and the citizen.

On the basis of the methodological stages followed—empathize, synthesize, ideate, prototype, and test—it is found that applying Design Thinking, Legal Design, and Visual Law to the Real Estate Registry is not only possible but also advisable, given its contribution to clearer, more accessible, and more efficient communication in the sphere of extrajudicial services.

By promoting clarity, accessibility, and efficiency, these methodologies make possible a new documentary paradigm in extrajudicial offices: one that is user-centered, grounded in legal foundations, and oriented toward informational inclusion. The movement toward modernization does not run counter to legality. On the contrary, it strengthens legality by generating greater democratization, transparency, and access to extrajudicial services.

The transition to this new model also accompanies the digital transformation of the registry folio, by facilitating the digital organization of the registration record's registry data into structured information. This broadens the potential for indexing, automation, and systemic integration within the Electronic Real Estate Registry System (Sistema de Registro Eletrônico de Imóveis – SREI)⁸¹.

The innovative restructuring of the real estate registration record, grounded in normative and methodological foundations, promotes the democratization of legal information, ensures the quality of the registry service, and contributes to optimizing justice in its extrajudicial dimension by fostering more effective, comprehensible, and equitable access to the law.

6 FINAL CONSIDERATIONS

This study takes as its object of research the integrated application of Design Thinking, Legal Design, and Visual Law in restructuring the real estate registration record, with the aim of improving communication in the Real Estate Registry and promoting effective access to legal information. It proceeds from the hypothesis that these methodologies make registry documents clearer, more functional, and more user-centered.

⁸¹ The SREI is the national platform designed to integrate Brazil's real estate registries electronically, enabling online services and interoperability among offices; the digital folio is the fully electronic form of the property record.

The results confirm this hypothesis by showing that the use of visual resources, accessible language, and a coherent communicative structure facilitates the comprehension of registry acts. The changes go beyond the aesthetic dimension, representing an informational reorganization grounded in the user's experience, in clarity, and in efficiency, with a direct impact on the accessibility and effectiveness of the service.

The prototyping developed demonstrates considerable benefits for both registry practice and the user's experience. The logical, standardized organization was validated through an iterative legibility test across three prototypes, facilitating the preparation, review, and consultation of records by the system's professionals. At the same time, visual resources, division into information blocks, accessible language, and the use of maps and schematic tables make reading clearer, more comprehensible, and more efficient for all audiences.

Drawing on participant observation within a human-centered approach to the recipient of the information, the study reaffirms the importance of aligning registry services with the guidelines of the National Council of Justice in favor of innovation, the use of plain language, and digital transformation. Extrajudicial offices prove to be spaces well suited to the incorporation of innovative practices that bring together law, technology, and design with a focus on the user.

The practical experience with the prototypes developed in this research demonstrates the feasibility of applying the methodologies of Design Thinking, Legal Design, and Visual Law in restructuring the real estate registration record. It also points to possibilities for extending them to other documents within the extrajudicial system, such as certificates, notations, and notarial acts in general.

The model developed from the concrete reality of the Pirai do Sul Office, in Paraná, has the potential to be replicated and adapted to the normative particularities of other states of the Federative Republic of Brazil, and future research is suggested into its application in state normative contexts other than the extrajudicial sphere of Paraná.

Given the advance of electronic registries and the strengthening of the digital folio, this study also points to concrete prospects for integrating these methodological approaches into the environment of interoperability among public registries.

Future studies may also empirically assess the effects of simplifying language and improving visual presentation on the effectiveness of the services provided to the population, especially in view of current demands for transparency, comprehensible language, and user-centeredness in the delivery of legal services.

The research conducted demonstrates the transformative potential of applying Design Thinking, Legal Design, and Visual Law to the modernization of extrajudicial services, especially by promoting greater clarity, accessibility, and efficiency in legal communication. The coordinated use of these methodologies as instruments for optimizing access to extrajudicial procedures is more than a formal modernization: it is a paradigm shift in communication within the extrajudicial sphere, directed toward the effectiveness, accessibility, and democratization of the public registry service.

7 REFERENCES

- ALVIM NETO, José Manuel de Arruda, CLÁPIS, Alexandre Laizo, CAMBLER, Everaldo Augusto, *Lei de Registros Públicos comentada*, 2. ed., Rio de Janeiro, Forense, 2019.
- ALVIM, Teresa Arruda, “Acesso à Justiça passa pelo fim da linguagem ‘empolada’ no Direito”, December 16, 2017, Available at <https://www.conjur.com.br/2017-dez-16/teresa-alvim-acesso-justica-passa-fim-linguagem-empolada/>, Accessed on May 7, 2025.
- ALVIM, Teresa Arruda, “A linguagem jurídica – Um desabafo”, December 16, 2020, Available at <https://www.migalhas.com.br/depeso/337683/a-linguagem-juridica---um-desabafo>, Accessed on May 7, 2025.
- BARBAROUX, Marine, *Untangling UX, Part 1: Design Thinking vs UCD*, Cambridge Consultants, 2016, Available at <https://cambridgeconsultants.com/us/node/33036>, Accessed on February 1, 2025.
- BRASIL, Conselho Nacional de Justiça, *Pacto Nacional do Judiciário pela Linguagem Simples*, nov. 2023, Available at <https://www.stj.jus.br/sites/portalp/Paginas/Comunicacao/Noticias/2024/24032024-STJ-na-luta-contr-o-juridiques-e-por-uma-comunicacao-mais-eficiente-com-a-sociedade.aspx>, Accessed on May 10, 2025.
- BRASIL, Conselho Nacional de Justiça, *Resolução n.º 325, de 29 de junho de 2020*, Dispõe sobre a Estratégia Nacional do Poder Judiciário 2021–2026 e dá outras providências, Available at <https://atos.cnj.jus.br/atos/detalhar/3365>, Accessed on December 7, 2024.
- BRASIL, Conselho Nacional de Justiça, *Resolução n.º 347, de 13 de outubro de 2020*, Dispõe sobre a Política de Governança das Contratações Públicas no Poder Judiciário, Available at <https://atos.cnj.jus.br/atos/detalhar/3518>, Accessed on February 25, 2025.
- BRASIL, Conselho Nacional de Justiça, *Resolução n.º 395, de 07 de junho de 2021*, Institui a Política de Gestão da Inovação no âmbito do Poder Judiciário, Available at <https://atos.cnj.jus.br/atos/detalhar/3973>, Accessed on February 23, 2025.
- BRASIL, Conselho Nacional de Justiça, *Recomendação n.º 144, de 25 de agosto de 2023*, Recomenda aos Tribunais que implementem o uso da linguagem simples nas comunicações e atos que editem, Available at <https://atos.cnj.jus.br/atos/detalhar/5233>, Accessed on February 21, 2025.
- BRASIL, Constituição (1988), *Constituição da República Federativa do Brasil*, Brasília: Congresso Nacional, 1988, Available at http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm, Accessed on October 25, 2024.
- BRASIL, *Lei n.º 6.015, de 31 de dezembro de 1973*, Dispõe sobre os registros públicos e dá outras providências, Available at http://www.planalto.gov.br/ccivil_03/leis/16015compilada.htm, Accessed on September 7, 2024.
- BRASIL, Superior Tribunal de Justiça, “STJ na luta contra o juridiquês e por uma comunicação mais eficiente com a sociedade”, March 24, 2024, Available at <https://www.stj.jus.br/sites/portalp/Paginas/Comunicacao/Noticias/2024/24032024-STJ-na-luta-contr-o-juridiques-e-por-uma-comunicacao-mais-eficiente-com-a-sociedade.aspx>, Accessed on May 10, 2025.
- BRASIL, Supremo Tribunal Federal, *Ação Direta de Inconstitucionalidade n. 5.663*, Rel. Min. Luiz Fux, Tribunal Pleno, julgado em 30 ago. 2019, publicado em 16 set. 2019, Available at <https://redir.stf.jus.br/paginadorpub/paginador.jsp?docTP=AC&docID=754406331>, Accessed on May 14, 2025.
- BRITTO, Melina Carla de Souza; CRUZ, Fabrício Bittencourt da, “Visual Law e inovação: uma nova percepção para o processo eletrônico no direito brasileiro”, *Humanidades & Inovação*, v. 8, p. 226–234, 2021.
- BROWN, Tim, “Design Thinking”, *Harvard Business Review*, v. 86, n. 6, p. 85–92, jun. 2008, Available at <https://readings.design/PDF/Tim%20Brown,%20Design%20Thinking.pdf>, Accessed on October 7, 2024.
- BROWN, Tim, *Design Thinking: uma metodologia poderosa para decretar o fim das velhas ideias*, Alta Books, 2020.

CAPPELLETTI, Mauro, GARTH, Bryant, *Acesso à justiça*, trad. Ellen Gracie Northfleet, Porto Alegre, Sérgio Antônio Fabris, 1988.

CENEVIVA, Walter, *Lei dos Registros Públicos comentada*, 16. ed., São Paulo, Saraiva, 2005.

CENTENO, Murillo Heinrich, “O impacto dos recursos visuais no âmbito jurídico”, in SOUZA, Bernardo de Azevedo e; OLIVEIRA, Ingrid Barbosa (orgs.), *Visual Law: como os elementos visuais podem transformar o Direito*, 2. ed. rev., atual. e ampl., São Paulo, Thomson Reuters Brasil, 2022.

COELHO, Alexandre Zavaglia, “Legal Design e Visual Law: conceitos e sua aplicação pelo Poder Público”, in COELHO, Alexandre Zavaglia; SOUZA, Bernardo de Azevedo e (orgs.), *Legal Design e Visual Law no Poder Público*, São Paulo, Thomson Reuters Brasil, 2021.

EL DEBS, Martha, *Legislação Notarial e de Registros Públicos – Comentada artigo por artigo*, 6. ed. rev., atual. e ampl., São Paulo, JusPodivm, 2023.

ESTADO DO PARANÁ, Corregedoria-Geral da Justiça, *Código de Normas do Foro Extrajudicial – CNFE*, Provimento nº 249, de 30 de setembro de 2013, Corregedoria-Geral da Justiça do Paraná, Curitiba, TJPR, 2025, Available at <https://www.tjpr.jus.br/codigo-de-normas-foro-extrajudicial>, Accessed on May 10, 2025.

FARIA, Bianca Castellar de, *Registro de Imóveis: Brasil x Estados Unidos – comparativo sobre a segurança, eficácia e custo*, Rio de Janeiro, Lumen Juris, 2023.

HAGAN, Margaret, *Law by Design*, 2017, E-book, Available at <https://lawbydesign.co>, Accessed on February 17, 2025.

HOLTZ, Ana Paula Ulandowski, “O que é Legal Design?”, *Ana Holtz Legal Design*, 1 mai. 2019, Available at <https://www.anaholtz.com.br/post/o-que-e-legal-design>, Accessed on May 17, 2025.

HOLTZ, Ana Paula Ulandowski, COELHO, Alexandre Zavaglia, *Legal Design/Visual Law: comunicação entre o universo do Direito e os demais setores da sociedade*, São Paulo, Thomson Reuters Brasil, 2020, E-book, Available at <https://thomsonreuters.com.br/content/dam/openweb/documents/pdf/Brazil/white-paper/legal-one-e-book-visual-law-2020.pdf>, Accessed on February 15, 2025.

Ji, Xiaoyu, *Where design and law meet – An empirical study for understanding Legal Design and its implication for research and practice*, 2019, Dissertação (Mestrado em Design Industrial e Colaborativo), Escola de Artes, Design e Arquitetura, Universidade Aaltodoc, Helsinki, 2019.

LEINER, Gabrielle Santangelo, DYKSTRA, Mayna Marchiori de Moraes, CRUZ, Fabrício Bittencourt da, “Aplicação de Legal Design e Visual Law na promoção do acesso à justiça no Brasil”, *Revista Internacional Consinter de Direito*, v. 10, n. 18, p. 79–94, 1º sem. 2024, Available at <https://revistaconsinter.com/index.php/ojs/article/view/499>, Accessed on February 27, 2025.

LOUREIRO, Luiz Guilherme, *Registros públicos – Teoria e prática*, 9. ed. rev., atual. e ampl., Salvador, JusPodivm, 2018.

MAIA, Ana Carolina, NYBO, Erik Fontenele, CUNHA, Mayara, *Legal Design – criando documentos que fazem sentido para os usuários*, São Paulo, Saraiva, 2020, E-book.

MCLACHLAN, Scott, WEBLEY, Lisa, “Visualisation of Law and Legal Process: An Opportunity Missed”, *Information Visualization*, v. 20, n. 2–3, p. 192–204, 2021, Available at <https://www.mclachlandigital.com/lawvis/include/img/work/full/LawDataVis0.4.pdf>, Accessed on January 4, 2025.

MOOTEE, Idris, *Design Thinking for Strategic Innovation: What They Can’t Teach You at Business or Design School*, John Wiley & Sons, 2013.

NUNES, Dierle, RODRIGUES, Larissa Holanda Andrade Rodrigues, “O contraditório e sua implementação pelo Design, Design Thinking, Legal Design e Visual Law como abordagens de implementação efetiva da influência”, in NUNES, Dierle; LUCON, Paulo Henrique dos Santos; WOLKART, Erik Navarro (orgs.), *Inteligência Artificial e direito processual – os impactos da virada tecnológica no direito processual*, Salvador, JusPodivm, 2020.

NYBO, Erik Fontenele, “Legal Design – a aplicação de recursos de design na elaboração de documentos jurídicos”, in FALEIROS JUNIOR, José Luiz de Moura; CALAZA, Tales (coords.), *Legal Design – teoria e prática*, São Paulo, Foco, 2023.

ORLANDI NETO, Narciso, *Registro de Imóveis*, 1. ed., Rio de Janeiro, Forense, 2023.

ROSA, Alexandre Morais da, MATTAR, Fernanda Badalotti Benvenuti, “Visual Law: como melhorar a comunicação forense”, *Consultor Jurídico*, January 2, 2024, Available at <https://www.conjur.com.br/2024-jan-02/visual-law-como-melhorar-a-comunicacao-forense/>, Accessed on January 14, 2025.

SANTOS, Bruno Rabelo dos; CRUZ, Fabrício Bittencourt da; DINIZ, Cláudio Smirne, “Natureza jurídica da Visual Law produzida pelo Poder Judiciário no Brasil”, *Humanidades & Inovação*, v. 10, p. 24–34, 2023.

SARDINHA, Cristiano de Lima Vaz, *Cartórios e acesso à justiça – a contribuição das serventias extrajudiciais para a sociedade contemporânea como alternativa ao Poder Judiciário*, 3. ed. rev., atual. e ampl., Salvador, JusPodivm, 2021.

TESHEINER, André Luís de Aguiar, “Linguagem simples e Visual Law”, in COELHO, Alexandre Zavaglia; SOUZA, Bernardo de Azevedo e (orgs.), *Legal Design e Visual Law no Poder Público*, São Paulo, Thomson Reuters Brasil, 2021.

WAMBIER, Teresa Arruda Alvim, RODRIGUES, Luiz, “Pequeno ensaio sobre a função da linguagem e o fenômeno jurídico”, *Revista Jurídica Consulex*, ano XI, n. 240, January 15, 2007.

WATANABE, Kazuo, *Acesso à ordem jurídica justa (conceito atualizado de acesso à justiça) – processos coletivos e outros estudos*, Belo Horizonte, Del Rey, 2019.