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ROAD TOWARDS A DIGITALLY ENHANCED FUTURE FOR MARRIAGE CONTRACT IN SERBIA

The integration of smart contracts and artificial intelligence (AI) into family law represents a major advancement in the digital transformation of legal procedures for marriage contracts. The blockchain technology enables smart contracts to function autonomously as self-executing agreements that deliver benefits through automated processes and transparent systems, and secure transactions. AI integration with these agreements enables real-time adjustments through adaptability because it allows automatic changes based on financial, legal, or personal circumstances. The implementation of family law through these agreements creates essential legal problems regarding their enforceability and jurisdictional differences, and their ability to handle marital relationship dynamics.

The paper studies the basis of smart contracts alongside their potential AI-enhanced adaptability and automation capabilities. It also studies the Serbian marriage contract legal regulation. The research investigates the legal obstacles and jurisdictional problems that emerge when these technologies are used in family law by making comparisons with other civil law jurisdictions. The article also evaluates important ethical issues related to algorithmic bias and privacy concerns before it concludes by analysing the advantages and disadvantages of AI-enhanced smart contracts for marriage contracts in Serbia.

Keywords: smart contracts, artificial intelligence, marriage contract, legal enforceability, family law digitalisation.

1. INTRODUCTION

The legal scene is changing significantly and showing growing incorporation of digital technologies in many spheres (Stjepanović, 2024, p. 180). From commercial transactions to administrative procedures, the efficiency and transparency offered by digital technologies are reshaping traditional legal practices. Family law, often perceived as a more conservative legal area, is also witnessing a gradual shift towards embracing technological

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advancements. This presents both opportunities and challenges, particularly in the context of foundational legal instruments, such as marriage contracts.

Smart contracts and AI are at the forefront of the digital wave. Smart contracts (computer code stored on a blockchain) are designed to automatically execute the terms of an agreement when predefined conditions are met (IBM, 2025). These self-executing agreements operate on principles of automation, transparency, and security, leveraging the distributed and immutable nature of blockchain technology (Lawrence, 2024). It is crucial to understand that, while the term includes “contract”, smart contracts are not really legal agreements but rather technological tools that can automate transactions (Szabo, 1996). Because of this, AI complements smart contracts. AI enables machines to do things that require human intelligence. When used for legal agreements, AI can make smart contracts better and more adaptable, as it can analyse data and make decisions based on it.

2. THE CORE PRINCIPLES OF SMART CONTRACTS IN LAW

A smart contract can be defined as a piece of code stored on a blockchain or other distributed ledger technology that automatically executes the terms of an agreement when certain predefined conditions are met (this “if/when, then” logic forms the basis of their operation) (Levi & Lipton, 2018). Main characteristics of smart contracts are: automation (the contract execution without the need for manual intervention when the conditions are fulfilled); transparency (the code and transactions are usually visible on the blockchain); security (due to the cryptographic nature of blockchain technology); and immutability (once deployed, the contract code cannot be altered) (GeeksforGeeks, 2024). A good analogy to understand the basic principle of a smart contract is a vending machine (Tysver, 2024). As a vending machine automatically dispenses a product after receiving the payment, a smart contract automatically performs an action when the specified conditions are fulfilled.

Distinguishing between a general smart contract and a smart legal contract is important. While a smart contract is a technological tool, a smart legal contract is one that satisfies all the legal requirements for a binding agreement within a specific jurisdiction and can be enforced by a court or tribunal (Hedera, n.d.). The UK Law Commission's report on smart legal contracts identified three potential forms: a natural language agreement with performance automated by code, an agreement written solely in and performed by code, or a hybrid contract combining both natural language and code (Law Commission, 2021).

In order to be legally recognised as a binding agreement, smart contract has to meet the fundamental requirements of contract law (offer, acceptance, consideration, and the intention to create legal relations) (Law Commission, 2021, part. 3). Acceptance might be demonstrated through the signing of a transaction with a private key, deploying the smart contract to a distributed ledger (Lowell Milken Institute for Business Law and Policy, 2018, p. 16) The legal validity of electronic transactions and signatures plays a crucial role. Laws like the Uniform Electronic Transactions Act (UETA) in the United States and the Law on Electronic Document, Electronic Identification, and Trust Services in Electronic Business in Serbia provide legal recognition to electronic signatures and records. Therefore, while

smart contracts offer a technologically advanced way to automate agreements, their legal standing depends on their adherence to established legal principles and regulations governing electronic transactions.

3. AI APPLICATIONS FOR SMART MARRIAGE CONTRACTS

AI has enormous potential to enhance the functionality and adaptability of smart contracts, especially in the context of marriage contracts. AI can automate various processes within smart contracts beyond simple conditional logic, leading to faster and more efficient execution of agreements (Patel, 2024, p. 1).

Adaptability and dynamic decision-making are other crucial enhancements offered by AI. Traditional smart contracts operate based on predefined rules, but AI enables them to analyse real-time data from various sources and adapt to changing circumstances (Patel, 2024, p. 1). This adaptability is particularly relevant for marriage contracts that might need to develop over time based on changing circumstances.

AI can also play a vital role in enhancing the security and preventing fraud associated with smart contracts (Patel, 2024, p. 1). AI algorithms can analyse smart contract code to identify potential vulnerabilities before deployment and continuously monitor transactions for suspicious activities or anomalies in real-time. This proactive approach can significantly strengthen the security of digital agreements (Patel, 2024, p. 1). Furthermore, AI can assist with legal compliance and interpretation. AI-powered tools can analyse regulatory frameworks, identify relevant legal requirements, and ensure that smart contract terms align with applicable laws (Patel, 2024, p. 3). Natural language processing (NLP) capabilities of AI can bridge the gap between legal language and computer code, enabling smart contracts to interpret complex legal clauses and respond to regulatory changes in real-time (Patel, 2024, p. 2). This ability to understand and apply legal rules makes AI a valuable tool for navigating the complexities of creating legally sound smart contracts.

3.1. The Serbian legal framework for marriage contract

In Family law of Serbia in Art. 3, marriage is defined as a union between a man and a woman. The Serbian family law stipulates two regimes for marital property: the legal regime and the contractual regime. The legal regime includes both separate property and joint property (Art. 29, Family Law). Default regime is community property, where assets acquired through work during the marriage are considered jointly owned by both spouses.

Serbian family law also provides for the contractual regime, allowing spouses or future spouses to regulate their property relations on existing or future property by signing a marriage contract. A crucial requirement for the validity and enforceability of a marriage contract in Serbia is that it must be concluded in the form of a notarised (solemnised) document (Art. 188, pt. 2, Family Law). During the notarisation process, a public notary is legally obligated to explicitly warn the contracting parties that the agreement excludes the legal regime of joint property, and this warning must be noted in the confirmation clause of the document. Furthermore, if the marriage contract pertains to real estate, it must also be registered in the public register of real estate rights to be fully effective against third

parties (Paragraf Lex, 2021). By entering into a marriage contract, spouses can deviate from the provisions governing the division of joint marital property, agreeing to different ratios of ownership or specifying that property acquired directly through the work of one spouse remains their sole property. The mandatory requirement for notarisation stands as a key formal condition for the legal validity of such contracts.

3.1.1 Potential avenues for amendments to accommodate digital innovations

Serbia has established a legal framework for recognising electronic documents and signatures through the Law on Electronic Document, Electronic Identification, and Trust Services in Electronic Business. This law acknowledges various electronic signature types, granting qualified electronic signatures (QES) the same legal weight as handwritten signatures. QES relies on qualified creation devices and certificates from authorised trust service providers.

While this framework supports many digital transactions, its application is limited when other specific laws mandate higher levels of formality. The Law on Electronic Documents stipulates that its provisions regarding the legal effect of electronic signatures and seals do not apply to legal transactions for which a *separate, specific law* requires a particular form, such as a certified signature, a publicly certified (solemnised) document, or a notarial deed. Consequently, transactions typically requiring these high formalities under other Serbian laws – a category often encompassing contracts for real estate transfers, testaments, inheritance-related documents, and certain family law agreements like marital property contracts – cannot currently be concluded using only the electronic signature provisions of this law. They must adhere to the stricter procedural requirements defined in the relevant governing legislation (e.g., the Law on Notaries, Family Law). This presents a significant challenge for realising fully digital marriage contracts in Serbia under the current legal landscape, as such agreements often fall under these high-formality requirements.

Studying trends in other civil law jurisdictions reveals a growing movement towards incorporating digital processes into marriage-related procedures. For instance, Saudi Arabia has made notable progress in digitalising marriage registration, with the Justice Ministry launching an e-link with the National Information Centre for automatic registration of certified marriages, aiming for a paperless digital marriage contract in the future (Ministry of Justice, Saudi Arabia, 2017). The UAE provides a comprehensive online service through the Abu Dhabi Judicial Department for requesting and documenting marriage contracts, including options for remote marriage ceremonies conducted via video conference and the immediate digital delivery of the marriage contract to the spouses (Ministry of Justice, UAE, n.d.). This system allows for the submission of applications online using digital IDs, electronic payment of fees, and flexibility in scheduling appointments with approved notaries (Gulf News, 2024). China has also revised its marriage registration policy to allow couples to wed where they live instead of returning to their hometowns, with plans to further streamline the process through improved digital infrastructure for online appointments and interprovincial data verification (Ministry of Justice of the People's Republic of China, 2025). These examples show a clear trend in

civil law systems towards leveraging digital technologies to enhance the efficiency and accessibility of marriage-related legal procedures.

To accommodate digital innovations for marriage contracts in Serbia, potential legal amendments would be necessary. This would likely require a coordinated approach, potentially involving amendments not only to the Law on Electronic Documents but also, crucially, to the specific laws (like the Family Law or the Law on Notaries) that currently mandate the high-formality procedures. Such amendments could explore explicitly, allowing the creation and validation of marriage-related documents in a digital format, perhaps utilising QES or other secure digital methods for authentication and verification.

The concept of “smart legal contracts”, which embed legal terms directly into code and self-execute upon specific conditions, could also be explored. While the current Serbian legal framework effectively excludes electronic signing for marital property agreements due to the deference to high-formality requirements in other laws, the possibility of future amendments, drawing inspiration from international best practices and the developing landscape of digital law, cannot be discounted. Such amendments would need careful consideration to maintain legal certainty, ensure the authenticity and integrity of digital agreements, and uphold necessary safeguards. Exploring the potential for secure and legally recognised “digital notarisation”, as seen in some other countries, could also be a key element in bridging the gap between the digital realm and Serbia's formal legal requirements for marriage contracts.

4. CHALLENGES ARISING FROM THE APPLICATION OF SMART CONTRACTS AND AI IN FAMILY LAW

One of the main principles of Serbian family law is the principle of free and informed consent for both entering marriage and concluding marriage contracts (Art. 3, Family Law). Ensuring that this consent is genuinely given and fully understood becomes a complex challenge in the context of smart contracts, where the terms are encoded in computer language that may be inaccessible to individuals without technical expertise. The automated nature of these agreements raises concerns about whether both parties truly comprehend the implications of the coded terms and are providing their consent freely. This is particularly true if AI is involved in drafting or adapting the contract, as the intricacies of the AI's decision-making process might not be transparent to the individuals entering the agreement.

Serbian law sets specific legal requirements for the capacity to enter marriage and contracts, such as reaching the age of majority and possessing mental competence (Art. 11, Family Law). It is hard to make sure if people who are using a smart contract have legal capacity, especially in the online world where there is no central control and people can be anonymous. Traditional methods of verifying identity and capacity, such as the personal appearance before a notary public required for Serbian marriage contracts, may not be directly applicable in a purely digital setting. Using AI systems to assess capacity also raises questions about the reliability and ethical implications of such automated assessments.

Serbian law recognises duress as a ground for the relative nullity of marriage, indicating the importance of ensuring that consent is not obtained through coercion (Art. 38,

Family law). Preventing and detecting undue influence or coercion in the negotiation and execution of a smart marriage contract requires careful consideration. While AI might potentially be used to identify unusual patterns or language indicative of coercion, the inherent complexities of human relationships make this a nuanced challenge. The digital medium might even introduce new avenues for exerting undue influence, potentially through sophisticated manipulation tactics. Therefore, robust safeguards and mechanisms for verifying genuine consent and capacity are crucial for the validity of AI-enhanced smart marriage contracts in Serbia.

The application of smart contracts and AI in family law presents significant challenges to traditional dispute resolution mechanisms. Courts, which typically rely on interpreting natural language and applying established legal principles, may struggle to handle disputes arising from smart contracts, particularly when they involve understanding and interpreting complex code and addressing technical intricacies (Ballaji, 2024, p. 1015). The ongoing debate surrounding “Code is Law” versus “Law is Law” highlights the potential conflict between the automatic execution of code and broader legal and equitable principles (Hassan & De Filippi, 2017). Moreover, a fundamental characteristic of many smart contracts is their immutability; once deployed on a blockchain, they are often very difficult, if not impossible, to modify or reverse, even in cases of errors, bugs, or unforeseen circumstances that might lead to unfair outcomes (Harris Sliwoski Blog, 2023). This lack of flexibility contrasts sharply with the ability to amend or seek remedies for breach in traditional contracts.

Jurisdictional issues represent another significant hurdle. Smart marriage contracts executed on decentralised blockchain networks can involve parties located in different countries, making it challenging to determine the applicable jurisdiction in the event of a dispute (LegalGPS, 2024). The lack of a central authority in many blockchain systems further complicates matters. One potential way to mitigate this issue is by including a clear choice of law clause within the smart contract, specifying which jurisdiction's laws will govern the agreement (Temte, 2019, pp. 108-109). However, the enforceability of such clauses in the context of decentralised and potentially anonymous parties remains a complex legal question.

5. ETHICAL CONCERNS

Integrating AI into marriage contracts raises significant ethical concerns, particularly regarding the potential for algorithmic bias. AI algorithms learn from huge amounts of data, and if this training data reflects existing societal biases, the AI system may inadvertently perpetuate or even exacerbate these biases in the marriage contracts it helps to draft or adapt (Fred, 2025). These biases could manifest in various aspects of the contract, such as the financial terms, the division of property, or even clauses outlining the responsibilities and expectations within the marital relationship. For instance, if historical data used to train an AI system reflects gender pay gaps or traditional gender roles in household responsibilities, the AI might inadvertently suggest contract terms that reinforce these inequalities. A key challenge in addressing algorithmic bias is the lack of transparency in

some AI algorithms, often referred to as the "black box" problem, which makes it difficult to understand how the AI arrives at its recommendations and to identify and rectify any inherent biases (Wischmeyer, 2020, p. 75). This lack of transparency can erode trust in the fairness and equity of AI-enhanced marriage contracts.

Marriage contracts inherently involve the exchange of sensitive personal information, including detailed financial records, personal histories, and future intentions. When these contracts are created, stored, and potentially analysed using digital platforms and AI systems, ensuring the privacy and security of this data becomes paramount (Quach *et al.*, 2022, p. 1307). Data protection regulations, such as the European Union's General Data Protection Regulation (GDPR), which may have implications for Serbian citizens or residents, impose strict requirements on the processing and protection of personal data. Using AI in analysing marriage contract data must comply with these regulations, ensuring that individuals' rights to privacy and data security are respected. Storing marriage contract data on a blockchain, while offering benefits in terms of immutability and transparency, also raises privacy considerations due to the inherently public nature of many blockchain networks. Robust encryption techniques and careful consideration of what data is stored on the blockchain are essential to mitigate these privacy risks.

5.1. Impact on Individual Autonomy and Dignity

The increasing reliance on AI in drafting and executing marriage contracts raises questions about its potential impact on individual autonomy and dignity. There is a risk that individuals might become overly reliant on AI-generated terms and recommendations, potentially diminishing the role of their own judgment and discretion in making these deeply personal agreements. The automation and efficiency offered by AI should not come at the cost of dehumanising legal services and overlooking the emotional complexities and unique circumstances inherent in marital relationships⁸². Concerns have also been raised about the potential for AI agents to gain increasing autonomy in legal processes within Web3 environments, potentially replacing the crucial role of human legal professionals and raising questions about accountability and ethical oversight (Medium, 2025). It is therefore crucial to strike a careful balance between harnessing the benefits of AI in enhancing marriage contracts and preserving the fundamental principles of individual autonomy, dignity, and the essential human element in these deeply personal legal agreements.

6. BENEFITS AND LIMITATIONS OF SMART CONTRACTS AND AI IN MARITAL AGREEMENTS

The intersection of technology and family law has become a subject of increasing academic scrutiny. Scholarly articles and legal research are exploring the potential benefits and limitations of integrating technologies like smart contracts and AI into various aspects of family law, including marital agreements (Bell, 2019, pp. 103-132). This body of research often highlights the potential for increased efficiency, cost savings, and transparency through the use of these technologies. For instance, smart contracts offer the promise

of automated execution and reduced reliance on intermediaries, while AI can assist in analysing complex legal documents and predicting potential outcomes.

However, academic discourse also emphasises the significant limitations and challenges associated with this integration. Legal uncertainty surrounding the enforceability of smart contracts under existing legal frameworks is a recurring theme (LegalGPS, 2024). The technical complexities of smart contract code and the potential for errors or vulnerabilities are also frequently discussed. Ethical concerns related to algorithmic bias, data privacy, and the potential impact on individual autonomy and the human element in legal processes are prominent in the literature (Bell, 2019, p. 127). Furthermore, the inherent immutability of many smart contract platforms raises questions about the ability to adapt to changing circumstances or rectify errors once a contract is deployed.

The academic community is actively debating the extent to which traditional contract law principles can be effectively applied to smart contracts and whether new legal frameworks are necessary to address the unique characteristics of these digital agreements. Research also explores the potential role of AI in enhancing the adaptability and intelligence of smart contracts, but with a cautious eye towards the ethical implications and the need for human oversight. While empirical studies and pilot projects examining the practical application of smart contracts and AI in the specific context of marital agreements are still relatively limited, the growing body of academic work provides a valuable foundation for understanding the potential and the pitfalls of this technological evolution in family law.

7. FEASIBILITY AND IMPLICATIONS FOR SERBIA'S LEGAL AND SOCIETAL LANDSCAPE

Evaluating the feasibility of introducing AI-enhanced smart contracts for marriage agreements in Serbia requires a careful consideration of several factors. The current state of technological infrastructure and digital literacy within the country will play a crucial role in the adoption and accessibility of such innovations. Furthermore, the readiness of the Serbian legal system to embrace and regulate these technologies is paramount. While Serbia has made strides in recognising electronic signatures, the explicit exclusion of marital property agreements from electronic signing under current laws presents a significant hurdle that would need to be addressed through legal amendments. A thorough analysis of the potential costs and benefits from a legal, economic, and social perspective would also be necessary to determine the overall feasibility and desirability of this digital transformation.

Introducing AI-enhanced smart marriage contracts could have huge implications for Serbian society. On the one hand, it could potentially increase access to legal services by offering more standardised and potentially cost-effective ways to create marital agreements. The automation and transparency offered by these technologies might also lead to greater efficiency and reduced costs in the overall process. However, societal attitudes towards using technology for such personal and legally significant matters in Serbia will need to be considered. Concerns about privacy, security, and the potential erosion of

the traditional role of legal professionals in providing personalised advice and guidance would also need to be addressed through public awareness campaigns and robust legal safeguards.

To navigate this digitally enhanced future, the Serbian government and legal community could consider several steps. These include conducting thorough research and pilot projects to explore the practical application of AI-enhanced smart contracts for marriage agreements, initiating public consultations to gauge societal attitudes and concerns, and engaging in interdisciplinary collaboration between legal experts and technology developers to identify and address potential challenges. Importantly, a careful review of the existing legal framework, particularly the laws governing electronic signatures and the notarisation of marriage contracts, would be necessary to identify potential avenues for legal amendments that could accommodate these digital innovations while upholding the fundamental principles of Serbian family law and protecting the rights and interests of individuals.

8. CONCLUSION

Integrating smart contracts and AI in marriage contracts in Serbia holds significant promise for creating more efficient, transparent, and potentially adaptable legal agreements. These technologies offer the potential to automate processes, enhance security, and even allow for dynamic adjustments based on changing circumstances. However, the path towards this digitally enhanced future is fraught with legal, ethical, and societal challenges that must be carefully navigated.

While the current Serbian legal framework provides a foundation for contractual regulation of marital property, the mandatory requirement for notarisation and the exclusion of marital property agreements from electronic signing pose immediate hurdles for the widespread adoption of fully digital smart marriage contracts. Addressing these legal constraints through thoughtful amendments, while ensuring the continued protection of individual rights and the integrity of the legal process, will be crucial.

The ethical considerations surrounding algorithmic bias, data privacy, and the impact on individual autonomy and dignity cannot be overlooked. As AI plays an increasingly prominent role in shaping these agreements, it is imperative to develop robust safeguards and ethical frameworks to prevent discriminatory outcomes, ensure the security of sensitive personal information, and preserve the essential human element in these deeply personal legal commitments.

The road towards a digitally enhanced future for marriage contracts in Serbia will require a balanced approach that embraces the potential of technological innovation while carefully considering and addressing the associated legal, ethical, and societal implications. Through thoughtful research, open dialogue, and strategic legal reforms, Serbia can chart a course that leverages the benefits of digitalisation to modernise its family law practices while upholding its core values and protecting the interests of its citizens.

LIST OF REFERENCES

- Ballaji, N. 2024. Smart Contracts: Legal Implications in the Age of Automation. *Beijing Law Review*, 15, pp. 1015-1032. <https://doi.org/10.4236/blr.2024.153061>
- Bell, F. 2019. Family Law, Access to Justice, and Automation. *Macquarie Law Journal*, 19, pp. 103–132.
- Fred, T. 2025. Bias and Fairness in AI Algorithms. ResearchGate. Available at: https://www.researchgate.net/publication/390057263_Bias_and_Fairness_in_AI_Algorithms (26. 3. 2025).
- GeeksforGeeks. 2024. Smart Contracts in Blockchain. Available at: <https://www.geeksforgeeks.org/smart-contracts-in-blockchain/> (27. 3. 2025).
- Gulf News. 2024. Instant delivery: 7,000 digital marriage contracts issued in Abu Dhabi. Available at: <https://gulfnews.com/uae/instant-delivery-7000-digital-marriage-contracts-issued-in-abu-dhabi-1.100825089> (20. 3. 2025).
- Hassan, S. & De Filippi, P. 2017. The Expansion of Algorithmic Governance: From Code is Law to Law is Code. *Field Actions Science Reports: The Journal of Field Actions*, Special Issue 17, pp. 88-90. Available at: <http://journals.openedition.org/factsreports/4518> (15. 3. 2025).
- Hedera. (n.d.) *Smart Legal Contracts Explained*. Available at: <https://hedera.com/learning/smart-contracts/smart-legal-contracts> (27. 3. 2025).
- IBM. 2025. What Are Smart Contracts on Blockchain? Available at: <https://www.ibm.com/think/topics/smart-contracts> (1. 3. 2025).
- Lawrence, E. 2024. *Blockchain and smart contracts for secure and transparent transactions*. [Online] ResearchGate. Available at: https://www.researchgate.net/publication/386337137_Blockchain_and_smart_contracts_for_secure_and_transparent_transactions (1. 3. 2025).
- LegalGPS. 2024. Legal Risks of Smart Contracts: Enforceability Explained. Available at: <https://www.legalgps.com/crypto/legal-risks-smart-contracts-enforceability> (29. 3. 2025).
- Lowell Milken Institute for Business Law and Policy. 2018. SMART CONTRACTS: Is the Law Ready? White Paper. Available at: <https://lowellmilkeninstitute.law.ucla.edu/wp-content/uploads/2018/08/Smart-Contracts-Whitepaper.pdf> (30. 3. 2025).
- Levi, S. D. & Lipton, A. B. 2018. *An Introduction to Smart Contracts and Their Potential and Inherent Limitations*. [Online] Harvard Law School Forum on Corporate Governance. Available at: <https://corpgov.law.harvard.edu/2018/05/26/an-introduction-to-smart-contracts-and-their-potential-and-inherent-limitations/> (1. 3. 2025).
- Medium. 2025. AI Agents And Smart Contracts. Available at: <https://medium.com/exponential-era/ai-agents-and-smart-contracts-070d768a66aa> (29. 3. 2025).
- Ministry of Justice of the People's Republic of China. 2025. Interprovincial marriage registration streamlined. Available at: http://en.moj.gov.cn/2025-03/25/c_1080377.htm (20. 3. 2025).
- Ministry of Justice, Saudi Arabia. 2017. Justice Minister launches e-link with National Information Center for marriage registration. Available at: <https://www.moj.gov.sa/english/MediaCenter/News/Pages/NewsDetails.aspx?itemId=38> (20. 3. 2025).

- Ministry of Justice, UAE. (n.d.) Request for Marriage Contract. Available at: <https://www.moj.gov.ae/en/services/services-categories/general/request-for-marriage-contract.aspx> (20. 3. 2025).
- Paragraf Lex. 2021. Bračni ugovor budućih supružnika. Available at: <https://www.paragraf.rs/100pitanja/porodica/bracni-ugovor-buducih-supruznika.html> (10. 3. 2025).
- Patel, O. 2024. AI-Driven Smart Contracts. *Journal of Artificial Intelligence & Cloud Computing*, 3, E120, pp. 1-9. [https://doi:10.47363/JAICC/2024\(3\)E120](https://doi:10.47363/JAICC/2024(3)E120).
- Quach, S. *et al.* 2022. Digital technologies: tensions in privacy and data. *Journal of the Academy of Marketing Science*, 50(6), pp. 1299–1323. <https://10.1007/s11747-022-00845-y>.
- Harris Sliwoski Blog. 2023. Are Smart Contracts Legal Contracts? . Available at: <https://harris-sliwoski.com/blog/are-smart-contracts-legal-contracts/> (22. 3. 2025).
- Stjepanović, B. 2024. Leveraging artificial intelligence in ediscovery: enhancing efficiency, accuracy, and ethical considerations. In: Kostić, J. *et al.* (eds.), *Regional Law Review*. Belgrade: Institute of Comparative Law, pp. 179-194. https://doi.org/10.56461/iup_rlr.2024.5.ch14
- Szabo, N. 1996. *Smart Contracts: Building Blocks for Digital Markets*. [Online] Available at: http://www.fon.hum.uva.nl/rob/Courses/InformationInSpeech/CDROM/Literature/LOTwinterschool2006/szabo.best.vwh.net/smart_contracts_2.html (2. 3. 2025).
- Tysver, D. 2024. Smart Contracts and the Law. BitLaw. Available at: <https://www.bitlaw.com/blockchain/smart-contracts.html> (3. 3. 2025).
- Temte, M. N. 2019. Blockchain Challenges Traditional Contract Law: Just How Smart Are Smart Contracts? *Wyoming Law Review*, 19(1), pp. 87-116. <https://doi.org/10.59643/1942-9916.1409>
- Wischmeyer, T. 2020. Artificial Intelligence and Transparency: Opening the Black Box. In: Wischmeyer, T. & Rademacher, T. (eds.), *Regulating Artificial Intelligence*. Cham: Springer International Publishing, pp. 75-101. https://doi.org/10.1007/978-3-030-32361-5_4

Legal Sources

- European Parliament and Council of the European Union (2016) *Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)*. OJ L 119, 4.5.2016.
- Family Law of the Republic of Serbia, *Official Gazette of the Republic of Serbia*, no. 18/2005, 72/2011 - other law, 6/2015 & 44/2018.
- Law Commission. 2021. *Smart legal contracts – advice to Government*. Law Com No 401. Available at: <https://www.lawcom.gov.uk/project/smart-contracts/> (4. 3. 2025).
- Law on Electronic Document, Electronic Identification and Trust Services in Electronic Business of the Republic of Serbia, *Official Gazette of the RS*, no. 94/2017 and 52/2021.

