

# Simulation of a Judicial Process Using Machine Learning to Analyze Administrative Prejudice and Indicate the Quality of Justice

David Paskoshev, Georgy Kopanitsa

ITMO University  
Saint-Petersburg, Russia  
david.d.paskoshev@gmail.com, kopanitsa@itmo.ru

Egor Trofimov, Oleg Metsker

The All-Russian State University of Justice  
Moscow, Russia  
diterihs@mail.ru, olegmetsker@gmail.com

**Abstract**—In many countries, it is customary to divide public offenses into different types. For example, in common law countries the doctrine of dividing such offenses into "malum in se" and "malum prohibitum" is common. In this article, based on a computer analysis of a large volume of empirical data, we test the following hypotheses, which have essential legal significance. The first hypothesis: judicial decisions rendered under the criminal procedure should have a more developed semantics than judicial decisions rendered under the administrative offence procedure. The second hypothesis: in the case of administrative prejudice, the decision trees built on the materials of criminal proceedings should have a fundamental similarity with the decision trees built on the materials of proceedings on cases of administrative offenses. The study was carried out based on non-political administrative prejudice, which has an important social significance, namely on the example of the failure to pay for the support of children or disabled parents (the article 5.35.1 of the Administrative Offences Code of the Russian Federation, the article 157 of the Criminal Code). The mentioned articles of the law are in force in the unchanged version since 15.07.2016, but even before that there was a stable judicial practice on similar cases. The study proved that both hypotheses: judicial decisions rendered under the criminal procedure have a more developed semantics than judicial decisions rendered under the administrative offence procedure. The second hypothesis: in the case of administrative prejudice, the decision trees built on the materials of criminal proceedings demonstrated a fundamental similarity with the decision trees built on the materials of proceedings on cases of administrative offenses.

## I. INTRODUCTION

In many countries, it is customary to divide public offenses into different types. For example, in common law countries the doctrine of dividing such offenses into "malum in se" and "malum prohibitum" is common[1]. Legislation may distinguish, for example, felony, misdemeanour, regulatory (or quasi-criminal) offence, summary offence, indictable offence. In the former countries of the socialist bloc, there is often a legal division of public offenses into "crimes" and "administrative offenses" ("administrative misdemeanors")[2]. In connection with the presence of such a division for a long time is discussed the institute of "administrative prejudice"[3]. The meaning of prejudice lies in the fact that repeated (repeated, systematic) committing an administrative offense turns it into a crime[4]. The problem of administrative prejudice has many aspects, which are not only of theoretical and practical interest for jurisprudence, but also cause a sharp reaction in society. Many

researchers have noted an obvious discrepancy between official statements about the humanistic purpose of administrative prejudice and its actual use in legislative practice. On the one hand, the President of the Russian Federation and the Constitutional Court of the Russian Federation position administrative prejudice as a means of decriminalization of minor single offenses[5]. According to them, the use of the institute of administrative prejudice exempts a person who has committed such an offence for the first time from more severe criminal offence[6], [7]. On the other hand, in the real practice of lawmaking the opposite happens. Offenses, which previously under no circumstances were punishable as crimes, when they are repeatedly committed, are transferred into the category of crimes. This is supported by the fact that with the introduction of the institution of administrative prejudice in the criminal legislation new crimes appeared predominantly (this is evident in 14 cases of introduction of administrative prejudice out of 21). There was never a clear decriminalization of already established crimes (in the remaining 7 cases, in fact, the norms of the criminal law were only clarified). Moreover, there is an opinion that administrative prejudice began to be used as a political and legal tool to influence those who criticize the activities of public authorities in the Russian Federation[8]. To date, 20 administrative prejudices have been established, and their use in the criminal law has become regular and frequent: one administrative prejudice was introduced in 2011, 2 in 2014, 2 in 2015, 4 in 2016, 1 in 2017, 2 in 2018, 1 in 2019, 4 in 2020, 3 in the first half of 2021. The presence of such a specific legislative construction, as administrative prejudice, and the corresponding array of judicial acts allows conducting interdisciplinary research based on comparison of judicial practice on similar cases considered based on different codes (the Code on Administrative Offences or the Criminal Code of the Russian Federation) in different procedural forms (criminal proceedings or proceedings on cases of administrative offences)[9], [10].

### A. Objectives

In this article, based on a computer analysis of a large volume of empirical data, we test the following hypotheses, which have essential legal significance. The first hypothesis: judicial decisions rendered under the criminal procedure should have a more developed semantics than judicial decisions

rendered under the administrative offence procedure. The basis for this hypothesis is a generally accepted judgment, according to which the proceedings on cases of administrative offenses differ from criminal proceedings by simplification and acceleration[11]. The confirmation of this hypothesis would indicate that the criminal procedure does provide a more thorough clarification of the circumstances of the case and, thus, does serve as a guarantee against illegal, unjustified, and unfair criminal prosecution. A refutation of this hypothesis would mean that the real effect of administrative prejudice conflicts with the goals of legal policy and is aimed at achieving some other goals, which are outside the scope of the law. The second hypothesis: in the case of administrative prejudice, the decision trees built on the materials of criminal proceedings should have a fundamental similarity with the decision trees built on the materials of proceedings on cases of administrative offenses. The basis for this hypothesis is the identity of relevant acts, i.e., on the one hand, the crimes qualified in criminal proceedings by administrative prejudice, and on the other - similar administrative offenses. The only legally defined difference of these acts is the sign of recurrence, which is inherent only to crimes. However, the sign of repetition will not be significant for the construction of the decision tree on the materials of crime cases, because this sign is present in every crime. Confirmation of this hypothesis would indicate the uniformity of judicial practice, which is one of the principles of legality[12]. Refutation of this hypothesis will mean that the logic of a court decision in a criminal case is different from the logic of a decision on an administrative offense, which must be considered when transferring a case from the category of administrative offenses to the category of crimes.

## II. METHODS

The study was carried out based on non-political administrative prejudice, which has an important social significance, namely on the example of the failure to pay for the support of children or disabled parents (the article 5.35.1 of the Code on Administrative Offences of the Russian Federation, the article 157 of the Criminal Code). The mentioned articles of the law are in force in the unchanged version since 15.07.2016, but even before that there was a stable judicial practice on similar cases.

At the first stage of the study, 4,798 court acts were collected from open sources (the state automated system of the Russian Federation "Justice"), including:

- 1) 4136 court acts under the article 5.35.1 of the Code on Administrative Offences for the period from July 2016 to April 2021;
- 2) 662 court acts under the article 157 of the Criminal Code for the period from February 2017 to September 2019.

At the second stage, the texts of judicial acts were structured based on methods previously developed by the authors [13]–[15].

At the third stage, for the purpose of semantic analysis, the texts were normalized by bringing the words to their initial forms, bigrams and trigrams were highlighted in the texts to identify legal collocations. Based on the normalized texts

(considering bigrams and trigrams) frequency vocabularies were compiled:

- 1) The vocabulary of judicial acts under the article 5.35.1 of the Code on Administrative Offences of the Russian Federation from 25165 terms used in the texts in the aggregate 3262413 times (arithmetic average frequency of using the term - 129.6 times);

- 2) the vocabulary of judicial acts under the article 157 of the Criminal Code of the Russian Federation of 9084 terms that were used in the texts a total of 415652 times (arithmetic average frequency of use of the term - 45.8 times).

In the fourth stage of the study, semantically meaningful terms were selected and classified by experts.

Term selection included:

- 1) removing common stop words (prepositions, particles, numbers, etc.);
- 2) removal of words not related to law enforcement (legal qualification);
- 3) selection of key terms (free components) that meet the requirements of semantic certainty, lexical relevance, professional usability and contextual predictability.

The selected terms were combined on the basis of synonymy, including:

- 1) proper synonyms;
- 2) terms distorted to their original meanings;
- 3) different parts of speech (including homonyms) that express identical information;

The selection of terms was carried out only with a frequency of at least 1% of the number of judicial acts for each analyzed article.

## III. RESULTS

### A. Analysis of the frequency of terms

The selection of terms included only terms with a frequency of at least 42 for the vocabulary of judicial acts under the article 5.35.1 of the Code on Administrative Offences of the Russian Federation and at least 7 for the article 157 of the Criminal Code of the Russian Federation. The terms with this frequency covered 9.5% of the vocabulary (2,396) and 95.6% of the text volume (3,19291) under the article 5.35.1 the Code on Administrative Offences, and 31.9% of the vocabulary (2,894) and 96.6% of the text volume (401499) under the article 157 of the Criminal Code.

Two vocabularies of judicial acts under the article 5.35.1 of the Code on Administrative Offences of the Russian Federation and the vocabulary of judicial acts under the article 157 of the Criminal Code of the Russian Federation were combined with the following results:

- 1) 29200 terms used in the texts a total of 3678065 times (the arithmetic average frequency of using a term is 126.0 times);

2) the number of overlapping terms used in court acts under both the article 5.35.1 of the Code on Administrative Offences of the Russian Federation and the article 157 of the Criminal Code was 5,049, they occurred in the texts 3453676 times (arithmetic average frequency of term use - 684.0 times);

3) the number of non-intersecting terms used in court acts either under the article 5.35.1 of the Code on Administrative Offences or under the article 157 of the Russian Criminal Code was 24152, they occurred 224389 times (the arithmetic average frequency of using the term is 9.3 times). The analysis of the frequency of intersecting and non-intersecting terms produced the following results (Table I).

TABLE I. COMPARATIVE TABLE OF ARTICLE-BASED FREQUENCY VOCABULARIES AND COMBINED FREQUENCY VOCABULARY

Vocabulary	Number of court acts	Number of terms	Number of terms used	The mean number of terms in a court act	The mean frequency of use of the term
Article 5.35.1	4136	25165	3262413	788,8	129,6
Article 157	662	9084	415652	627,9	45,8
Joint	4798	29200	3678065	766,6	126,0

Before reaching the mean frequency (from a minimum of 684.0 and 9.3, respectively), the intersecting terms (4555) cover 90.2% of the terminological vocabulary and 8.8% of the text volume; the non-intersecting terms (19482) cover 80.7% of the vocabulary and 24.4% of the text volume. From the table above it follows that the volume of the text of a verdict in a criminal case under the article 157 of the Criminal Code by the number of terms used in it (words, bigrams and trigrams) on average is 79.6% of the text of the judgment on the case of an administrative offence under the article 5.35.1 of the Code on Administrative Offences. This fact goes against the idea of better criminal justice. Table II contains a frequency distribution of terms on a logarithmic (lg) scale.

TABLE II. FREQUENCY DISTRIBUTION OF TERMS ON A LOGARITHMIC (LG) SCALE

Frequency range of terms	Intersecting terms		Non-intersecting terms	
	number	frequency	number	frequency
1-9	1520	2-9	19482	1-9
10-99	2194	10-99	4440	10-99
100-999	912	100-988	219	101-785
1000-9999	343	1006-9932	10	1054-4166
10000 and above	80	10181-88474	—	—

The above differences in number and frequency indicate that non-intersecting terms in general contain more semantic "noise" and are therefore less suitable for processing, analysis, and machine learning than intersecting terms. This is indirectly confirmed by the fact that among the intersecting terms, including stop words, the first semantically meaningful term (with a frequency of 50604) is ranked 11th in the top list, while among the non-intersecting terms it is ranked 28th.

*B. Analysis of terminological vocabularies*

As a result of expert selection and classification of terms, terminological vocabularies were compiled, including

semantically meaningful terms. Terminological vocabularies were compiled from selected terms with a frequency of not less than 1% of the number of court acts for each analyzed article. The terms with this frequency from which the expert sample was taken covered 9.5% of the vocabulary (2396) and 95.6% of the text volume (3119291) under the article 5.35.1 of the Code on Administrative Offences, and 31.9% of the vocabulary (2894) and 96.6% of the text volume (401499) under the article 157 of the Criminal Code that the length of the text containing all selected judgments. In terms of the text volume covered, the analysis of the article 5.35.1 of the Code on Administrative Offences is close to statistical error (2%), and the analysis of the article 157 of the Criminal Code is within statistical error (4.2%), which allows us to limit the analysis to a frequency threshold of 1%, calculated from the number of court acts under each article of the law. The terminological vocabulary of court acts under the article 5.35.1 of the Code on Administrative Offences (Table III) included 108 semantic units, combining 180 terms (7.5% of the vocabulary of extracted words, bigrams, and trigrams within the specified 1% frequency threshold), which were used 71021 times (2.3% of the extracted word, bigram, and trigram vocabulary uses within the specified 1% frequency threshold).

TABLE III. CLASSIFICATION OF SEMANTIC UNITS (SELECTED TERMS) OF THE TERMINOLOGICAL VOCABULARY FOR THE ARTICLE 5.35.1 OF THE CODE ON ADMINISTRATIVE OFFENSES

Frame	Key terms	Frequency
general case parameters	ruling	47065
parties of court proceedings	victim	3293
	representative	2664
	advocate	2544
	prosecutor	870
	witness	332
factual circumstances	valid	10911
	motive	4312
means of proof	protocol	11211
	agreement	3861
procedural facts	petition	3713
	no-show	550
law enforcement reasoning	doubt	1863
	obligation to bear	735
Total		71021

The terminological vocabulary of judicial acts under the article 157 of the Criminal Code (Table IV) included 121 semantic units, combining 244 terms (8.4% of the vocabulary of extracted words, bigrams, and trigrams within the specified 1% frequency threshold) that were used 18,824 times in the texts (4.7% of extracted words, bigrams, and trigrams).

Thus, semantically significant terms constitute 7.5% of the vocabulary of extracted words, bigrams and trigrams and 2.3% of the text volume for judicial acts under the article 5.35.1 of the Code on Administrative Offences. They constitute 8.4% of the vocabulary and 4.7% of the text volume for judicial acts under the article 157 of the Criminal Code. In other words, only one term out of 12-13 from the list of words, bigrams and trigrams carries a semantic load. In terms of the corresponding text volume - one term per more than 20-40. This fact determines the prospects of machine processing and analysis of texts and data of judicial acts, as well as the possibility of expert selection of

semantically significant terms. A comparison of both article vocabularies showed a total of 162 semantic units and 4 "homonyms" as well as 63 explicit semantic matches. Semantic units characterize the richness of the described substantive and procedural situation and are classified as follows:

- 1) participants in the proceedings - 9 semantic units;
- 2) factual circumstances of the case - 89;
- 3) means of proof - 20;
- 4) procedural facts - 16;
- 5) reasoning of the law enforcer - 24.

In addition, "homonyms" (Table V) denote the same objects, phenomena, or processes, but they have different meanings for classification in the context of specific substantive legal regulation and the procedural form of consideration of a case in criminal and administrative codes (Table VI). These semantic features were identified by the experts.

TABLE IV. CLASSIFICATION OF SEMANTIC UNITS (SELECTED TERMS) OF THE TERMINOLOGICAL VOCABULARY FOR THE ARTICLE 157 OF THE CRIMINAL CODE

Frame	Key terms	Frequency
general case parameters	sentence	4322
parties of court proceedings	advocate	2318
	the accused	1213
	victim	778
	prosecutor	767
	prosecutor's office	538
	representative	402
	witness	84
	psychiatrists/narcologist	75
	civil plaintiff	22
	civil defendant	20
factual circumstances	valid	819
	mitigating	548
	repeatedly	460
	malicious evasion	361
means of proof	ruling	3539
	document	191
procedural facts	application	703
	recognizance	185
law enforcement reasoning	doubt	208
	stricter	170
	incorrect application	123
Total		18824

TABLE V: HOMONYMIC TERMS

Homonym	Frame for the article 5.35.1	Frame for the article 157
ruling	general case parameters	means of proof
sentence	factual circumstances	general case parameters
plaintiff/civil plaintiff	factual circumstances	parties of court proceedings
lawsuit / civil action	factual circumstances	procedural facts

And, most importantly, when checking the mismatched semantic units against the full frequency vocabularies, all semantic units without exception are found below the 1% threshold, which was adopted as a limit for the expert selection of terms. So, the available vocabulary differences are determined by the frequency of use of these terms and the needs of the corresponding form of judicial proceedings.

TABLE VI. NUMBER OF SEMANTIC MATCHES

Ontology frames	Number of matches	Vocabulary on the article 5.35.1		Vocabulary on the article 157	
		Number	%	Number	%
general case parameters	—	1	—	1	—
parties of court proceedings	5	5	100	10	50
factual circumstances	36	65	55,4	64	56,3
means of proof	12	17	70,6	15	80
procedural facts	5	6	83,3	16	31,3
law enforcement reasoning	5	14	35,7	15	33,3
Total	63	108	58,3	121	52,1

C. Analysis of decision trees

Decision trees for the administrative and criminal court rulings are presented in the figures 1-2.

Document, Order, repeated, imprisonment, prosecutor, admission of guilt, repeatedly, health condition, protocol, first time.

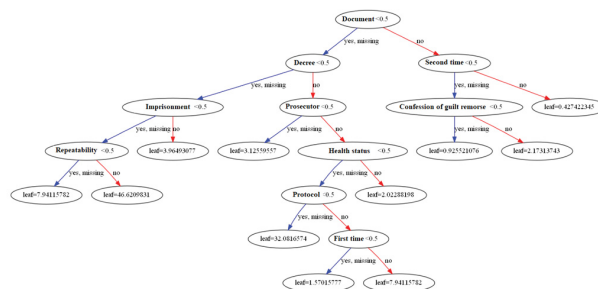


Fig. 1. Regression tree for the criminal ruling

Repeatedly, unemployed, health condition, narcologist/psychiatrist, fraudulent evasion.

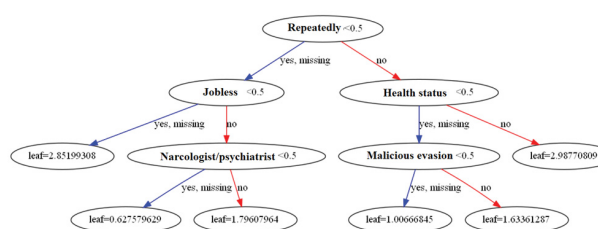


Fig. 2. Regression tree for the administrative ruling

Analysis of decision trees showed the terms "document", "order", "repeated", "imprisonment", "prosecutor", "admission of guilt", "repeatedly", "health condition", "protocol", "first time" in criminal proceedings and the terms "repeatedly", "unemployed", "health condition", "narcologist / psychiatrist", in administrative proceedings. The decision tree in criminal cases does not contain all of the circumstances that are relevant in cases involving administrative offenses. This demonstrates that justice is influenced not only by the merits of the case, but also by the judicial procedure in which the trial takes place. In addition, tree develop on the combined group of court cases



(criminal cases and cases of administrative offenses) and on the combined vocabulary (under the article 5.35.1 of the Code on Administrative Offences and under the article 157 of the Criminal Code) is evidence of adequate machine data processing, since at the base of this tree is one of the markers by which the two mentioned trial procedures are distinguished ("prosecutor"). In fact, the tree immediately separated two branches: criminal cases and cases of administrative offenses, which can be seen already at the second level, where another marker ("administrative") is indicated (Fig.3).

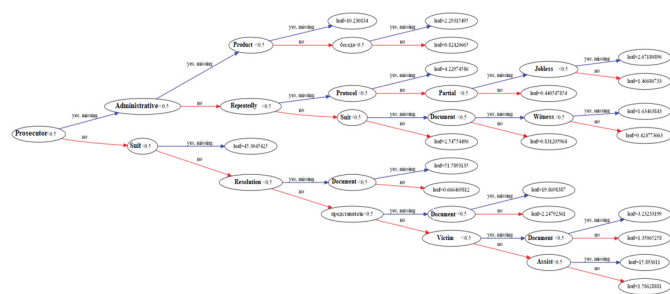


Fig. 3. Regression tree for the administrative and criminal ruling

#### IV. DISCUSSION

##### Analysis of terminological vocabularies

Semantic matches in the terminology of each of the two groups of judicial acts formally constitute a little more than half of the semantic richness, and a total of 63 of 166 semantic units, i.e. 38.0%. However, the following should be considered.

First, the above "homonyms" (4 semantic units, or 2.4%), although they have different meanings in the context of each article, their legal meaning remains unified. In other words, vocabulary and semantically they are present in both groups of judicial acts, and their semantic difference is recorded in the knowledge base.

Secondly, the analysis of the available discrepancies shows that their significant part (34 semantic units, or 20.5%) stems from the prescribed or established features of the procedural form of court proceedings, namely:

- 1) the broader composition of participants in proceedings in criminal cases (4 semantic units);
- 2) procedural peculiarities in proceedings on administrative offenses and in criminal proceedings (11 semantic units);
- 3) established terminology of judicial reasoning in motivating the adopted judicial act (19 semantic units).

In this respect, the inconsistent terms do not bring practically any information or knowledge about the very offence regarding which the proceedings are being conducted.

Third, all the mismatched semantic units in the means of proof frame (8 semantic units) are at the bottom of the list in terms of frequency of use, with 5 of them (3.0%) covered by the hyperonym "document," which is present in both terminological vocabularies. The only significant difference is the presence of "material evidence," "confession," and "expert report" in the

terminological vocabulary for the article 157 of the Criminal Code.

Fifth, the article considers not the quality itself, but its indicator humanization. There is no generally accepted understanding of "quality of justice". For example, European judicial systems CEPEJ Evaluation Report [16] and Sharipova et al. [17] understand quality of justice as comprising not only of the quality of judicial decisions and key aspects of judicial service delivery, but all aspects that are relevant for the good functioning of the justice system, typically assessed through the user perception. The article promotes the idea that better quality justice should have more developed semantics and logic of decision-making. Therefore, the indicated judgment was taken as the initial hypothesis. However, in the study of various prejudices, this hypothesis is not always confirmed.

#### VII. CONCLUSION

The study proved that both hypotheses: judicial decisions rendered under the criminal procedure have a more developed semantics than judicial decisions rendered under the administrative offence procedure. The second hypothesis: in the case of administrative prejudice, the decision trees built on the materials of criminal proceedings demonstrated a fundamental similarities in trees are compared for the classes of the terms and for their significance.

#### ACKNOWLEDGMENT

This work is financially supported by the government of the Russian Federation through the ITMO fellowship and professorship program. The reported study was funded by RFBR, project number 20-011-00837.

#### REFERENCES

- [1] S. DIMOCK, "The Malum prohibitum—Malum in se Distinction and the Wrongfulness Constraint on Criminalization," *Dialogue: Canadian Philosophical Review / Revue canadienne de philosophie*, vol. 55, no. 1, pp. 9–32, Mar. 2016, doi: 10.1017/S0012217316000275.
- [2] A. Huneceus, "The Quasi-Criminal Jurisdiction of the Human Rights Courts," *Proceedings of the ASIL Annual Meeting*, vol. 106, pp. 146–148, 2012, doi: 10.5305/PROCANNMEETASIL.106.0146.
- [3] A. Barikova, "Prejudice in Administrative Proceedings," *Slovo of the National School of Judges of Ukraine*, no. 3(32), pp. 75–83, Dec. 2020, doi: 10.37566/2707-6849-2020-3(32)-6.
- [4] T. Blondiau, C. M. Billiet, and S. Rousseau, "Comparison of criminal and administrative penalties for environmental offenses," *European Journal of Law and Economics* 2014 39:1, vol. 39, no. 1, pp. 11–35, Nov. 2014, doi: 10.1007/S10657-014-9473-9.
- [5] A. O. Inshakova, A. I. Goncharov, O. A. Mineev, and M. v. Sevostyanov, "Amendments to the Civil Code of the Russian Federation: Contradictions of Theory and Practice," *Contributions to Economics*, no. 9783319552569, pp. 147–153, 2017, doi: 10.1007/978-3-319-55257-6\_20.
- [6] A. S. Serov, "Administrative legal position of an advocate in the proceeding in administrative offence cases.," *Police activity*, vol. 5, no. 5, pp. 307–311, May 2013, doi: 10.7256/2222-1964.2013.5.10220.
- [7] A. A. Romanov, "A Relationship between the Proceedings Related to Administrative Offences and the Administrative Proceedings," *Russian Juridical Journal*, vol. 2017, 2017, Accessed: Aug. 30, 2021. [Online]. Available: <https://heinonline.org/HOL/Page?handle=hein.journals/rusjj2017&id=131&div=&collection=>

- [8] Y. A. Svirin, V. A. Gureev, A. A. Mokhov, L. V. Inogamova-Khegai, and S. N. Shestov, "On Some Challenges Faced by the Judicial Power in the Russian Federation," *Journal of Advanced Research in Law and Economics (JARLE)*, vol. 11, 2020, Accessed: Aug. 29, 2021. [Online]. Available: <https://heinonline.org/HOL/Page?handle=hein.journals/jarle11&id=1047&div=&collection=>
- [9] B. A. K. Rider, "Civilising the Law — The Use of Civil and Administrative Proceedings to Enforce Financial Services Law," *Journal of Financial Crime*, vol. 3, no. 1, pp. 11–33, 1995, doi: 10.1108/EB025662.
- [10] O. Pankova, "Problems of correlation and differentiation of administrative proceedings of administrative offences," *Gosudarstvi pravo*, no. 12, pp. 46–56, Dec. 2019, doi: 10.31857/S013207690007817-0.
- [11] Y. P. Sinelshchikov, "Administrative prejudice in modern criminal proceedings: theory and practice," *Gosudarstvo i pravo*, no. 1, pp. 86–92, Feb. 2020, doi: 10.31857/S013207690008354-1.
- [12] O. E. Shishkina, O. v. Habibulina, and A. F. Rekhovskiy, "Liability for administrative offences: Standards of European court of human rights and the current state of the legislation on administrative offences in Russia," *Journal of Advanced Research in Law and Economics*, vol. 9, no. 1, pp. 307–312, Mar. 2018, doi: 10.14505/JARLE.V9.1(31).36.
- [13] O. Metsker, E. Trofimov, and G. Kopanitsa, "Application of machine learning metrics for dynamic E-justice processes," *Conference of Open Innovation Association, FRUCT*, vol. 2021-January, Jan. 2021, doi: 10.23919/FRUCT50888.2021.9347598.
- [14] O. Metsker, E. Trofimov, M. Petrov, and N. Butakov, "Russian Court Decisions Data Analysis Using Distributed Computing and Machine Learning to Improve Lawmaking and Law Enforcement," *Procedia Computer Science*, vol. 156, pp. 264–273, Jan. 2019, doi: 10.1016/J.PROCS.2019.08.202.
- [15] O. Metsker, E. Trofimov, S. Sikorsky, and S. Kovalchuk, "Text and data mining techniques in judgment open data analysis for administrative practice control," *Communications in Computer and Information Science*, vol. 947, pp. 169–180, 2019, doi: 10.1007/978-3-030-13283-5\_13.
- [16] "European judicial systems CEPEJ Evaluation Report 2020 Evaluation cycle (2018 data)".
- [17] A. R. Sharipova, "Convergence in the procedural branches of law: prospects for judicial law and the criminal process," *Gosudarstvo i pravo*, no. 7, pp. 115–124, Aug. 2021, doi: 10.31857/S102694520009986-5.