

Digital Evidence in Administrative Proceedings: Challenges and Specialized Skills for Lawyers in Vietnam

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Abstract. In the context of digital transformation and the development of e-government, the application of technical means to handle administrative violations is becoming an inevitable trend. However, practice shows that the increase in "digital administrative decisions" based on algorithms and electronic data poses a major challenge to the legitimate rights of individuals and organizations due to the volatile nature and technical errors of digital evidence. This article focuses on analyzing the specialized skills of lawyers in collecting, verifying, and refuting digital evidence to counteract errors from intelligent monitoring systems. By combining the theory of "Administrative Justice" and international precedents, the authors propose solutions to improve the evidence verification process and enhance the digital capacity of lawyers. This is a key factor in ensuring the supremacy of law and the proportionality of administrative sanctions in the digital age.

1. INTRODUCTION

In Vietnam, the trend of monitoring traffic activities through smart camera systems is becoming increasingly popular, leading to a strong increase in the method of handling administrative violations through "cold" fines. This practice is creating an urgent need to control the accuracy and ensure the objectivity of electronic data when used as evidence before the Court. Set against the backdrop of accelerating judicial reform and building a socialist rule of law state in Vietnam, the administrative system is witnessing a strong shift from traditional to digital records, guided by the "Digital Government, Digital Economy, and Digital Society" orientation. The application of technical tools and intelligent monitoring systems has created a generation of "digital administrative decisions" realizing the Vietnam's policy of enhancing transparency, accountability, and responsibility in governing. However, practice has shown a dramatic increase in administrative complaints and lawsuits, with increasingly complex cases. Meanwhile, the professional skills of lawyers today still have many "gaps," particularly in the ability to critically analyze digital evidence and decode algorithms from "traffic-based" penalty systems for high-tech cases. The imbalance in digital capabilities between public authorities and lawyers not only reduces the effectiveness of legal arguments but also directly affects the legitimate rights of individuals and organizations. Therefore, in legal professional training, standardizing "Specialized Skills Modules" on handling digital evidence for lawyers is not only an urgent requirement to improve the quality of litigation but also a key factor in ensuring the supremacy of law and optimally protecting human rights in the digital age.

2. LITERATURE REVIEW

2.1. The Concept of Digital Evidence

In the context of digital transformation, digital evidence has become an inseparable component of administrative case files. Understanding the nature and legal value of this type of evidence is a prerequisite for lawyers to build effective litigation strategies. Digital evidence (or electronic evidence) refers to probative information stored and transmitted as electronic data through digital devices. Current laws regulate electronic evidence through provisions of criminal, civil, and administrative proceedings with related regulations. In cases of complaints regarding administrative violations, digital evidence often exists in various forms such as: Global Positioning System (GPS) data to determine vehicle location; system log files recording the history of operations on management software; images and videos extracted from "traffic violation" camera systems; or electronic transaction history in tax and invoice cases. Unlike traditional evidence, digital evidence does not exist independently but is always linked to information carriers/containers and specialized technical infrastructure platforms. From a training perspective, the standard curriculum on lawyer skills in handling administrative cases has begun to identify this type of evidence according to legal regulations. Specifically, electronic data is identified as an independent source of evidence, including traditional data messages such as faxes, emails, electronic invoices, and information stored in complex mechanical and electronic media. However, the current curriculum only requires lawyers to identify and verify the formal legality of electronic evidence, while the digital age demands that lawyers possess more complex skills to decode the algorithms hidden behind that digital data. This requirement shows that lawyers should not only determine whether the digital data exists but also be able to critically assess whether that data is intact or has been compromised. Distortion (due to intentional human error or natural system error).

2.2. Specific Characteristics of Digital Evidence

Digital evidence is understood as a form of evidence in litigation, always formed or associated with electronic data sources, ensuring all three attributes: objectivity, relevance, and legality. Digital evidence possesses complex technical characteristics, creating both opportunities and challenges in litigation. Electronic data is both objective and highly accurate if authenticated by technical measures such as hash values or digital signatures, helping to faithfully reproduce the events of the act. Besides, this

type of electronic evidence is also very easy to tamper with, modify, or delete without leaving a tangible trace if the creation and collection process is not strictly controlled. Furthermore, the probative value of digital evidence depends entirely on the stability of the technical infrastructure and the skill level of the system operators, requiring lawyers to possess both legal and technical assessment capabilities. In modern theory of administrative justice, scholars emphasize that the shift to the digital age is not merely a technological change but a redefinition of the relationship between citizens and state power. Digital evidence needs to be viewed from the perspective of "personal experience" when dealing with algorithms, where initial decision-making must be ensured through data transparency. In essence, electronic data exists in the form of basic memory units (bits, bytes) or electromagnetic waves that are imperceptible to the natural state and human senses. For these data to become meaningful messages (audio, text, images), a combination of compatible equipment, appropriate software, and especially the competence of the operator is required, sometimes even their ethics, to ensure that digital evidence is not altered to distort its objectivity. Therefore, the probative value of digital evidence lies not only in the displayed content but also depends heavily on the reliability of the method of creating, storing, and maintaining the integrity of the data message and the collection process. This requires lawyers in administrative litigation to have critical thinking not only in legal matters but also in technical procedures to ensure that evidence is not distorted during the transformation from binary code to a recognizable message.

Digital evidence plays a decisive role in clarifying the constituent elements of administrative violations, especially the objective aspects and the fault of the subject. Through the analysis of digital data, lawyers can accurately determine the time, place, and method of committing illegal acts, thereby cross-referencing with regulations on jurisdiction and statute of limitations for penalties. More importantly, digital evidence also helps to "decode" the element of error; for example, data from an automated system can prove that a violation occurred due to an objective technical malfunction or algorithmic error rather than subjective error by an individual or organization, thus opening up avenues for protecting clients based on cases excluding administrative liability.

3. METHODOLOGY OF RESEARCH

To do this research, the authors use many kinds of methodologies such as method of analysis international and Vietnamese legal documents (laws and regulations) related to Lawyer skills, Digital evidence and Administrative proceedings; method of survey, and the hypotheses developed in the study shows how to use law and regulation to govern the Administrative proceedings activities, etc...

Moreover, the author also uses the questionnaires for survey to get the opinion of related people and statistic data to assess the role and affection of law on the Administrative proceedings activities of lawyers in Vietnam.

Lastly, the author also uses some hypotheses developed in the study shows how to use law and regulation to govern the activities of lawyers in Administrative proceedings.

4. FINDINGS AND DISCUSSION

4.1. Lawyer's Skills in Collecting and Verifying Digital Evidence

In administrative litigation, collecting digital evidence is not simply a matter of copying data, but a complex professional legal process aimed at ensuring the probative value of the proceedings. This requires lawyers to apply fundamental skills in identifying sources of evidence, verifying the legality of the collection process, and determining the probative value of each document in the administrative case file. Based on standardized professional rules on evidence in administrative violation cases, lawyers need to master the following specialized digital skills to effectively identify and refute technical errors or intentional falsification of evidence in the digital environment.

Firstly, Skills in retrieving and preserving original data. Lawyers must be able to request administrative agencies to provide data in its original format, along with system log files, instead of just accepting processed printouts or screenshots. The retrieval must include metadata to accurately identify the time, coordinates, and device that generated the evidence. In cases where data is at risk of being deleted or altered, lawyers need to request bailiffs to create a record documenting the static state of the data in the digital environment or request the court to apply temporary injunctions to freeze the data. Electronic data ensures objectivity if it is authenticated by a hash value – understood as a "digital fingerprint" that helps confirm the absolute integrity of evidence from collection to trial. Any small modification to the original data will change the hash value, making it easy for lawyers to identify evidence that has been tampered with. The use of hash algorithms (such as SHA-256) to create a "chain of custody" has become a technical standard to ensure data security. The probative value of electronic data in modern administrative litigation.

Secondly, Skills in verifying the legality of technical means. For digital evidence obtained from automated surveillance systems, the lawyer's skill lies in verifying the legality of the professional equipment. This includes checking the inspection validity period, operating license, and technical standards of the equipment as prescribed by specialized laws. If the equipment does not meet standards or is operated by an unauthorized person, the lawyer has the right to request the removal of this data from the case file due to violations of the procedures for collecting evidence. For this verification, the general principles of European Administrative Law such as "legitimized expectations" and "right to be heard" serve as a "common denominator" to verify the value of digital evidence. Lawyers need to apply these standards as an international legal tool to refute digital data that is inconsistent or violates citizens' rights to access information and their right to accountability in the digital environment.

Thirdly, lawyer's skills in Utilizing Experts and Digital Experts. Due to the specific nature of the technology, lawyers need the skills to interact with IT experts or experts to decipher complex technical parameters. This skill is demonstrated through asking relevant questions about recognition algorithms, camera exposure, or measurement device errors. Using independent expert opinions on the integrity of hash values will be a powerful tool to help lawyers refute digital evidence that shows signs of being manipulated or technically interfered with by regulatory agencies.

4.2. Lawyer's Skills in Refuting Digital Evidence in Court and the Presentation Phase

In the digital age, digital evidence is no longer tangible "evidence" but exists in the form of electronic data sets that are easily altered. Therefore, a lawyer's refuting skills should not only focus on comparing content but also delve into the integrity and authenticity of the data.

Firstly, Skills in critically examining the legality of data collection and preservation processes. In administrative proceedings, the accuracy of digital evidence depends entirely on the integrity of the data from the time it is generated until it is presented in

court. Lawyers need to apply the skill of controlling the "Chain of Custody" to eliminate data that does not guarantee objectivity.

4.2.1. Critical Examination of Equipment and Technical Standards

Lawyers need to proactively request the competent authority to present the inspection and calibration certificates of professional technical equipment (such as surveillance cameras, speedometers, and alcohol concentration measuring devices). If the equipment has expired inspection or is operated by someone without professional certification, all results obtained violate the formal legality of the evidence. For example, in administrative cases related to traffic "automatic fines," a lawyer can successfully argue if they point out that the placement of surveillance cameras does not conform to the planning regulations or the image data is blurry and noisy due to the lack of regular equipment maintenance, leading to inaccuracies in license plate recognition.

4.2.2. Critique of the Data Extraction Process and Integrity

A key skill for lawyers is verifying whether digital data is extracted directly from the device's original memory or has passed through an intermediate processing system capable of algorithmic manipulation. The absence of technical safeguards such as hash values or sealed storage device records at the time of collection is a crucial legal basis for lawyers to request the court to reject the probative value of that document. In Vietnam, based on the skills of identifying violations in the procedures for collecting evidence as guided in the Lawyer's Professional Training Manual, lawyers need to delve into checking the legality of the data extraction process. However, practical exchanges with many lawyers show that many penalty decisions have been fiercely challenged when the authorities only provide a copy. Presenting screenshots without the original log file compromises the continuity, authenticity, and legality of digital evidence.

In the practical fight against high-tech violations, articles by experts in the Procuracy sector affirm that hash codes are a key technical element in determining the relevance and integrity of electronic data. Generating a hash code at the time of seizure not only protects the objectivity of evidence but also allows for repeatable and verifiable data recovery before the Court. Note that this principle should also be applied similarly in administrative proceedings because a "cold penalty" decision or a digital administrative decision only guarantees legality when the input data is not corrupted. If the administrative agency cannot present a hash code for verification to prove the integrity of the original data, lawyers have the right to argue against the lack of basis in that decision, similar to rejecting an existing decision. Discarding illegal evidence in administrative cases.

Secondly, Skills in identifying and refuting "system errors" and "algorithmic errors". In the digital age, when administrative penalty decisions are issued based on the results of automated systems (such as smart cameras, sensor devices), lawyers need to equip themselves with the skills to "decode" technical errors that are often considered absolutely correct. The critique should not only focus on human behavior but also on the transparency and reliability of pre-programmed algorithms.

4.2.3. Refuting AI identification

Lawyers need the skills to analyze environmental factors affecting the accuracy of AI, such as lighting conditions, camera scanning angles, or the similarity of characters on license plates. Proving that AI incorrectly identifies the subject is crucial grounds for requesting the annulment of a penalty decision. For example, in cases of "traffic violation" for lane violations, lawyers can argue that the AI system cannot distinguish between intentional violations and drivers swerving to avoid obstacles or following direct traffic instructions at the scene.

4.2.4. Arguing about data conflicts and "log-file" errors

The skill of cross-referencing system log files helps lawyers detect discrepancies between real-time and server-recorded times. A small error in synchronizing data between specialized measuring devices can lead to incorrect determination of the time of the violation, thereby affecting the application of the statute of limitations for penalties. For example, in the United States, the case of *State v. Chung* (2015) set an important precedent when lawyers successfully challenged GPS data by discovering that the transmitting device had an error rate exceeding the permissible limit in an urban environment with many tall buildings, rendering the data unproven in terms of the object's precise location.

4.2.5. Challenging the objectivity of automated penalty algorithms

Lawyers need the skill to question the "ethics of algorithms" when penalty decisions are made without considering the specific context of the act. Using data analysis tools to identify systemic errors helps lawyers create a strong counterweight to digital administrative power. In Europe, many administrative decisions imposing fines based on automated software have been overturned by courts because lawyers proved that the algorithms were not programmed to identify "exemptions" such as emergency situations or unforeseen events.

Thirdly, Dialogue and argumentation skills based on the principle of "Proportionality". In the digital age, where violations are often recorded mechanically through data, a lawyer's skills go beyond simply arguing for objective facts; they must also challenge the reasonableness of sanctions. Based on the principle of "proportionality" (a common standard in international administrative law), lawyers need to demonstrate that the administrative penalty is appropriate to the nature and extent of the violation and does not cause unnecessary damage to the affected party.

4.2.6. Analyzing the context of the violation from digital data

Lawyers need to use technological evidence (such as GPS location data, environmental sensors, or dash-cam videos) to reconstruct the actual context. Proving that a client's violation occurred in an "emergency situation" or due to an objective technical system failure is a key skill for applying for exemption from penalties under Article 11 of the Law on Handling Administrative Violations. For example, in a case where a business is penalized for exceeding emission standards due to a pipeline rupture (recorded by an automated monitoring system), a lawyer can use log-file data from the early warning system to prove that the business took all necessary preventative measures in a timely manner, thereby requesting a change in the penalty from a "fine" to a "warning" or exemption from penalties due to an emergency situation.

Counter arguing about discretionary application of penalties: Lawyers need the skill to reconcile the broad penalty framework with the actual nature of the violation recorded through digital evidence. Proving that a purely technical error, which did not cause serious consequences, was still subject to the maximum penalty is the basis for lawyers to persuade the complaint handler or judge to adjust the administrative decision in favor of the client. For example, in European countries, the principles of "legal belief" and "proportion" are often applied by lawyers to overturn decisions to permanently revoke business licenses for errors first detected through electronic control systems, if this measure causes excessive production disruption compared to the state's management objectives.

4.3. Recommendations

Currently, lawyers are facing "digital inequality" compared to state administrative agencies. Firstly, the mechanism for accessing digital information is limited; original data and system log files are often considered internal or confidential documents, making it difficult for lawyers to verify the authenticity of evidence. Secondly, the legal framework for electronic evidence in administrative proceedings. The main issue is the lack of detailed regulations on the collection procedures and technical standards for evidence to be recognized as legitimate. Finally, traditional professional thinking and the shortage of in-depth digital skills training models are creating a significant competency gap among lawyers when dealing with algorithm-based administrative decisions. Besides the stringent requirements in criminal proceedings, civil and administrative litigation practices in Vietnam are also urgently demanding the standardization of digital evidence collection processes. Recent studies indicate that, due to their susceptibility to manipulation and deletion, the analysis of electronic data must be performed on digital copies to protect the integrity of the original. However, the current legal framework still lacks detailed guidelines on preservation procedures and specific technical standards, leading to difficulties for parties involved in accessing data from systems outside their control (such as official email or administrative agency system logs). This further emphasizes the role of lawyers in proactively requesting the application of technical measures such as timestamps or security verifications to verify the probative value of documents. To ensure that lawyers' digital evidence processing skills truly become an effective tool for protecting justice, the author proposes several specific solutions as follows:

i. In the process of improving legislation

It is necessary to promptly add specific provisions to the Law on Handling Administrative Violations and the Law on Administrative Procedure regarding the right of lawyers to participate from the initial stages of document preparation and the right to access and copy original digital data files. In particular, it is necessary to establish a mandatory "digital evidence verification" process, in which the agency issuing the penalty decision is obligated to prove the integrity of the data through equipment verification certificates and data hash codes when complaints arise.

ii. In training and professional development activities

The Judicial Academy and law firms need to develop "Specialized Skills Modules" focusing on:

- (i) Techniques for decoding administrative violation reports in a digital environment;
- (ii) Skills in interacting and debating with experts and technical experts; and
- (iii) Skills in direct dialogue and explanation through online public service portals.

The shift from "general knowledge training" to "practical skills training" linked to technology will help lawyers truly become a transparent counterweight to public authorities in the digital age.

However, for these skills to be truly effective, a strong shift in the mindset of legal training is needed, from imparting knowledge to training practical "digital skills modules." Simultaneously, perfecting the legal framework regarding access to digital records and the mechanism for verifying original data is a prerequisite for creating an equal footing for lawyers in litigation. Success in building a team of "digital lawyers" not only contributes to improving the quality of litigation but also demonstrates the progress of Vietnam's judicial system in the process of integration and building a socialist rule of law state. As Dr. Doan Trung Kien mentioned: in the context of the 4.0 Industrial Revolution, judicial and auxiliary judicial positions need to be equipped with the capacity to adapt to the digital environment, especially the ability to analyze and evaluate data and apply technology to protect justice. The shift from a traditional knowledge-based training model to a model of practical skills training through "Digital Skills Modules" and blended learning is the inevitable direction for lawyers to avoid falling behind in the face of the development of e-government and intelligent monitoring systems.

5. CONCLUSION

In the era of digital transformation, the fairness of public administration is not only measured by purely legal regulations but also depends on the transparency of data and algorithms. Mastering digital evidence processing skills is no longer an optional addition for lawyers but has become an inherent requirement of the profession to protect human rights and property rights against the arbitrary power of public authority. Through the application of modern administrative justice principles and in-depth critical analysis techniques, lawyers play a role in controlling, identifying, and correcting systemic errors in the process of handling administrative violations.

REFERENCES

- Cao Anh Duc, & Ngo Thi Bich Thu. (2021). Measures for collecting, transforming, and using electronic evidence in high-tech cases. *Electronic Prosecution Journal*. <https://vksndtc.gov.vn/tin-tuc-su-kien/chi-thi-cong-tac-nganh-kiem-sat-nhan-dan-nam-2019/bien-phap-thu-thap-chuyen-hoa-su-dung-chung-cu-die-s23-t9873.html>
- Cao Vu Minh, & Nguyen Nhat Khanh. (2020). *Forms of administrative sanctions*. Youth Publishing House.
- Central Committee of the Communist Party of Vietnam. (2022, November 9). *Resolution No. 27-NQ/TW on continuing to build and perfect the socialist rule of law state of Vietnam in the new period*.
- Doan Trung Kien. (2020). *Training and fostering human resources of the justice sector to meet the requirements of the Fourth Industrial Revolution* (Ministry-level scientific research project). Ministry of Justice.
- Duong Quynh Hoa, & Chu Thi Thanh An. (2024). Collecting electronic evidence in Vietnamese civil procedural law. *Prosecution Journal*, (13). <https://kiemsat.vn/thu-thap-chung-cu-dien-tu-trong-phap-luat-to-tung-dan-su-viet-nam-70371.html>
- Harlow, Carol, & Rawlings, Richard. (2022). *Law and administration* (4th ed.). Cambridge University Press.
- Hertogh, Marc, & Kirkham, Richard. (2021). *The Oxford handbook of administrative justice*. Oxford University Press.

- Judicial Academy. (2020). *Textbook on skills of judges, prosecutors, and lawyers in resolving administrative cases* (Vol. 2, Advanced section). Justice Publishing House.
- Judicial Academy. (2022). *Textbook on skills of lawyers in resolving administrative cases*. Justice Publishing House.
- Le Thi Hong Tham. (2024, April). Improving the concept of administrative violations to ensure consistency in the Law on Handling Administrative Violations. *Vietnam Lawyers Journal*.
- Nguyen Duc Hanh, & Cao Cam Thi. (2023). Regulations on electronic evidence in procedural law and the Law on Electronic Transactions. *People's Court Electronic Journal*. <https://tapchitoaan.vn/quy-dinh-ve-chung-cu-dien-tu-trong-phap-luat-to-tung-va-luat-giao-dich-dien-tu8114.html>
- Nguyen Van Toan. (2019). *Duties and powers of the People's Procuracy in the first-instance trial of administrative cases: From the practice of Binh Phuoc Province* (Master's thesis). Hanoi Law University.
- Prime Minister of Vietnam. (2020, June 3). *Decision No. 749/QĐ-TTg approving the National Digital Transformation Program to 2025, with orientation to 2030*.
- Schwarze, Jürgen. (2019). *European administrative law*. Sweet & Maxwell.
- Tran Minh Khue. (2021, October). Skills of lawyers in the explanation phase when being penalized for administrative violations. *Vietnam Lawyers Magazine*.