

Electronic Witness Testimony in Cross-Border Trials: Procedural Standards under EU Regulation 2018/1805 and Common Law Approaches

Mahmood Ahmed^{*1}, Surraya Saleem², Shoaib Safdar Ghumman³

¹*Visiting faculty, Department of Law, Dadabhoy Institute of Higher Education (DIHE), Karachi, Sindh, Pakistan.

²Deputy Registrar Academics, Shaheed Zulfikar Ali Bhutto University of Law (SZABUL) Karachi, Sindh, Pakistan.

³Ph.D. Scholar (Law), University of Karachi, Sindh, Pakistan.

Corresponding author: advocate.ahmed@ymail.com

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This study examines the procedural standards governing electronic witness testimony in cross-border trials under EU Regulation 2018/1805 and selected Common Law jurisdictions. The increasing growth of transnational crimes and digital justice systems has accelerated the use of remote testimony, particularly after the COVID-19 pandemic. The study adopts a qualitative doctrinal and comparative legal research approach to analyze legal provisions, procedural safeguards, evidentiary standards, and fair trial protections relating to electronic witness testimony in the European Union, the United Kingdom, the United States, Canada, and Australia. The findings reveal that both EU and Common Law systems recognize the importance of electronic testimony in improving judicial efficiency and facilitating international cooperation. However, significant differences remain regarding admissibility, witness credibility assessment, confrontation rights, authentication, and data protection standards. The study concludes that stronger procedural harmonization, technological safeguards, and international cooperation are necessary to ensure fairness, reliability, and human rights protection in cross-border virtual proceedings.

1. Introduction

The increase in transnational crimes, including cybercrime, money laundering, terrorism financing, and online fraud, has heightened the demand for effective international criminal law cooperation and mechanisms for efficient cross-border criminal law procedures (Donoghue, 2017; Susskind, 2019; Katsh & Rabinovich-Einy, 2017). European and Common Law jurisdictions have more frequently adopted digital justice methods to enhance the efficiency of judicial procedures and preserve the integrity of judicial processes. The COVID-19 pandemic accelerated the development and adoption of new systems for virtual hearings and electronic evidence, including the electronic provision of testimony for both domestic and international cases (Sanders, 2021). Costs, delays, and risks to the judiciary and witness' safety have been significantly lessened compared to the traditional methods (Eurojust, 2023). Nonetheless, the greater reliance on remote testimony has its own problems such as the fairness and credibility of testimony, the reliability of evidence and the protection of data and technology which have an effect on the integrity of the criminal justice system (Brodowski & Szabó, 2024).

1.2 Context of the Study

The legal frameworks governing criminal judicial cooperation within the EU have implemented both digital justice measures and harmonized laws. Regulation (EU) 2018/1805 facilitates the cooperation of Member States in regard to the cross-border recognition of the issuance of freezing and confiscation orders (O'Connell, 2022; Wolfe, 2022). At the same time, the EU's digitalization strategy has encouraged remote judicial cooperation and the exchange of information by electronic means (Inchausti, 2023). Similar trends can be observed in Common Law systems, including the UK, the US, and Canada, which also expanded the use of remote judicial cooperation in the form of remote testimony and virtual hearings following the shift to online courts and remote adjudication (Inchausti, 2024).

These advancements have been insufficient in alleviating the global disparity of processes concerning electronic testimony. The legal landscape continues to be murky with the issues related to the admissibility of evidence, authentication, standards of examination, and the balance between the right to a fair and public trial and the protection of the witness and technological solutions (De Hert & Papakonstantinou, 2020; Greenleaf, 2021). Moreover, it makes the convergence of standards for cross-border virtual testimony more difficult due to the differences in the procedural frameworks of the EU and Common Law concerning the law of evidence.

1.4 Research Objectives

1.4.1 General Objective

- To examine procedural standards governing electronic witness testimony in cross-border trials under EU Regulation 2018/1805 and Common Law systems.

1.4.2 Specific Objectives

1. To analyze the legal provisions and procedural standards relating to electronic witness testimony in EU and Common Law jurisdictions.

2. To compare EU and Common Law approaches toward admissibility, authentication, and fair trial protections in electronic witness testimony.
3. To identify major legal, procedural, and technological challenges in cross-border electronic witness testimony and propose recommendations for procedural harmonization.

1.5 Research Questions

1. What legal provisions and procedural standards regulate electronic witness testimony in EU and Common Law jurisdictions?
2. How do EU and Common Law systems differ in their approaches toward admissibility, authentication, and fair trial protections in electronic witness testimony?
3. What are the major legal, procedural, and technological challenges in cross-border electronic witness testimony, and how can procedural harmonization be improved?

This study focuses on electronic witness testimony procedures in transnational criminal law and adds to international comparative scholarship in this area. It provides valuable insight to international judges, attorneys, and criminal justice policy-makers (De Hert & Papakonstantinou, 2020; Greenleaf, 2021). It will also help practitioners understand the implications of current debates on electronic/digital justice, global litigation, and the right to a fair trial in virtual court sessions.

2. Literature Review

2.1 Concept of Electronic Witness Testimony

Electronic witness testimony allows witnesses to offer evidence using technology. As a result, some witnesses do not have to attend the courtroom in person to provide evidence (Brière, 2021; Gál, 2024). Witnesses can provide evidence through video and audio applications whether they are in the courtroom or in another location, software which enables witnesses to provide evidence at a later point in time, and systems which allow some courtroom participants to be present and participate virtually (Caianiello, 2025; Cami & Karsai, 2025). Many of the new ways of providing evidence are being used in both criminal and civil cases in both international cases and cases that are urgent (Murray et al., 2026).

Legally, the definition of electronic witness testimony is participation in a courtroom in a way that is fair and equitable, and evidence being provided in a way that is equitable. Generally, in a courtroom, testimony that is electronic maintains the principles of being immediate, transparent and providing the opportunity for cross-examination (Alawida et al., 2022; Bartoli, 2025). Some experts believe that testimony that is electronic provides greater accessibility to the legal system because it provides the opportunity for participants to be located in other countries. In addition, testimony that is electronic costs less and takes less time than testimony that is in person (Sourdin, Li & McNamara, 2020).

Remote testimony was adopted by the majority of the courts in the world after COVID-19 in order to continue to function as a court (Alawida et al., 2022). Currently, testimony that is electronic commonly occurs in one of the following four ways: the first way is testimony

that is electronic through the use of an audiovisual platform, the second way is testimony that is electronic through the use of a platform that allows witnesses to give testimony from a remote location where they are being watched by an official, the third way is testimony that is electronic through a platform that allows testimony to be both recorded and admitted later, and the last way is a system of combined virtual and physical testimony (Kiršienė et al., 2022).

Many experts believe that testimony that is electronic makes courts more efficient and effective. Many of the same experts believe that testimony that is electronic raises the concern of witnesses being coached, the inability of the court to verify the witness' identification, interruptions due to technology, and the inability of the court to assess the witness' demeanor (James, 2024).

2.2 Evolution of Cross-Border Judicial Cooperation

Since the inception of cross-border judicial cooperation, one of the main avenues through which this cooperation was established is called the Mutual Legal Assistance Treaty (MLAT), which signifies the ability of each of the parties to request specific evidence, testimony, and other forms of procedural assistance from the respective foreign state (Sanders, 2021; Puddister & Small, 2020). However, there were many complaints against traditional MLAT due to the long delays and procedural difficulties, especially in cases involving the need for electronic evidence and generally in the cybercrime domain (Svantesson, 2020).

To increase the efficiency of the procedures, the European Union made more complex mechanisms of judicial cooperation based on the principles of mutual recognition (Kiršienė et al., 2022; Inchausti, 2023). One of the most significant steps in this regard was made with the adoption of Directive 2014/41/EU which established the European Investigation Order (EIO). This directive created a framework for the cooperation of cross-border criminal investigations of the E.U. member states. The EIO dramatically improved the cooperation for electronic evidence and the digital provision of testimony and other forms of evidence via communication technologies (Mitsilegas, 2016).

The mechanisms of judicial cooperation in the European Union also include Eurojust, the European Judicial Network, and the European Public Prosecutor's Office. These all enhance the ability to coordinate in the context of transnational criminal proceedings. These entities are also increasingly relying on digital communication technologies for the shifting of evidence and carrying out remote cooperation for procedural purposes (Novokmet, 2017).

At the level of international law, the structures and frameworks for digital evidence have developed rapidly due to the increased phenomenon of online criminal activities and cybercrime (Altaani et al., 2024). One of the international instruments, the Budapest Convention on Cybercrime, calls on the contracting states to cooperate in the collection and safeguarding of digital evidence. One of the main focuses of legal scholars has been to explain the need for modern judicial cooperation to have aligned and unified technological standards for the reliability, authenticity, and integrity of electronic testimony systems. (Bartoli, 2025).

2.3 EU Legal Framework on Electronic Evidence

The European Union has constructed an expansive legal framework for the development of judicial cooperation and electronic evidence. In this regard, Regulation (EU)

2018/1805 serves to assist Member States in facilitating cross-border criminal cooperation by enabling the judicial authorities to recognize and enforce each other's orders—often without the need to comply with lengthy procedural formalities (Silva, 2022).

The Regulation is based on the principle of mutual recognition, which in practice means that Member States are obliged to accept and implement judicial decisions taken by other EU Member States. The principle is at the core of EU judicial integration and is expected to foster greater efficiency and legal certainty, as well as to promote greater cooperation in the criminal justice domain (Martufi, 2020).

As a result of recent reforms in the EU's digitalization, there has been even more enhancement in the EU's electronic cooperation (Altaani et al., 2024). The Union has supported the development of safe digital communication systems, such as the e-CODEX system. This digital system is meant to support the electronic transfer of judicial documents and, in the future, judicial evidence, while still safeguarding the Union's cybersecurity and data protection (European Union Agency for Criminal Justice Cooperation, 2023; Gál, 2024).

Even with reforms, legal scholars have identified a lack of harmonization among national procedural laws, technological divide, and disparities in standards for the admissibility of electronic testimony, as some of the key issues framing the contemporary legal landscape. Also, the concerns of digital security and authentication of witnesses, as well as the protection of the rights to a fair trial and the integrity of judicial proceedings in the virtual sphere, remain and are just as pressing (Carrera et al., 2021).

2.4 Common Law Approaches to Electronic Witness Testimony

2.4.1 United Kingdom

In the UK, electronic witness testimony is regulated by the Criminal Justice Act of 2003 and by other subsequent Acts and reforms (Regulation (EU) 2018/1805, 2018; Silva, 2022). Remote witness testimony is permitted and undertaken in UK courts if the remote testimony is deemed to serve the interests of the court and/or to protect vulnerable witnesses and/or court participants (Rowden & Wallace, 2018). The UK courts adopted remote hearing procedures in response to the COVID-19 pandemic, supported by emergency procedures and the court's digital transformation projects (Byrom et al., 2020).

Remote witness procedures in the UK courts incorporate systems to ensure effective testimony, the protection of confidentiality, the integrity of the testimony, and the opportunity for cross-examination. The court retains the right to determine if remote witness testimony serves the interest of the court.

2.4.2 United States

The Federal Rules of Evidence and constitutional guarantees in the Sixth Amendment Confrontation Clause provide the legal framework for the provision of electronic evidence in the United States. Traditionally, the American judicial system prefers the physical presence of all parties as opposed to electronic evidence. Virtual testimony is an exception to this rule and can be used when the testimony can be used to protect the interest of the public or the witness (Wolfe, 2022).

There is an ongoing debate in the American judicial system on the remote testimony right to reach a fair verdict and maintain the right to confront. It is believed that virtual testimony can cause the loss of some of the layered psychological and procedural safeguards that are typically present in physical testimony (Bandes & Feigenson, 2020).

2.4.3 Canada and Australia

In Canada and Australia, courts are beginning to allow more remote testimony based on their discretion and some changes to established procedures. Courts in both countries view remote testimony as a positive step toward eliminating accessibility issues for individuals in court and reducing jurisdictional challenges. In Canada, courts have said that remote testimony is acceptable so long as it does not affect procedural fairness and the right to make a case.

Australian courts also have used remote testimony in a lot of virtual hearings during the pandemic and continue to use digital technology in court (Rowden & Wallace, 2018). It is still up to individual judges to determine if remote testimony is prejudicial to the accused or if it makes the testimony of the remote witness unreliable.

2.5 Comparative Legal Framework

The investigation of how civil law and common law systems deal with electronic witness testimony somewhat illustrates larger systems as a whole. Civil law systems are based on inquisitorial procedures with judges in charge of how evidence is gathered and how witnesses are called to give evidence. Common law systems are built on adversarial procedures with counsel leading witnesses and evidence being called to court in a manner determined by parties (Jackson & Summers, 2012).

These systems and procedures influence how far a judge is willing to go in his or her discretion to allow testimony to be heard by a judge and not in person. In the EU, systems tend to value the judge's ability to control and direct the proceedings with an emphasis on harmonized systems with convergence/consistency. In contrast, Common law systems tend to value the right of the parties to confront witnesses and their right to control how evidence is presented in court.

The comparative literature shows that there is not a dominant or universal model of procedure for the reception of electronic testimony. Each system applies a model that is consistent with their philosophical approach to law, evidential theories, and their capacity to use and exploit technology.

2.6 Procedural Fairness and Human Rights Concerns

One of the issues that continues to draw criticism is procedural fairness. The right to confront witnesses and cross-examine them is particularly important in formal criminal proceedings, especially in the common law system (Caianiello, 2025; Cami & Karsai, 2025). Critics point out that testimony given remotely makes it difficult for the court to properly evaluate the witness' demeanor and the spontaneity and credibility of the testimony (Rowden & Wallace, 2018).

There are also concerns relating to guarantees of due process and the equality of arms where there are technological inequalities that limit participation by a defendant or a legal

representative. Poor internet connectivity, remote proceedings, communication and comprehension obstacles, and the digital divide, disadvantaged many participants in the remote proceedings.

Issues of privacy and protection of data in cross border virtual hearings cannot be overemphasized. Electronic systems for taking testimony involve a serious risk of compromise to personal data due to the transmission and storage of such data, resulting in a risk of a loss of confidentiality and integrity of the data and exposure to digital breaches of data (Cami & Karsai, 2025). There is considerable advocacy for the development of secure digital systems of justice and integrated procedural safeguards to foster confidence in the virtual justice system (Greenleaf, 2021).

Further challenges persist in ensuring the authenticity and reliability of remote testimony. Courts are challenged to secure electronic testimony against harmful external influences whilst maintaining the integrity of the evidence.

2.7 Theoretical Framework

The study incorporates theories that are interlinked in different ways. The first is Procedural Justice Theory which covers fairness, neutrality and transparency and is based on a belief that these aspects, when embraced, improve trust in justice systems (Kiršienė et al., 2022; Inchausti, 2023). Due Process Theory deals with the preservation of rights from the demand of the state such as the right to confront, the right to a fair hearing and the right to equality of arms.

Legal Harmonization Theory deals with the strife to unify and standardize rule of procedure across different jurisdictions to enhance cooperation and optimize legal certainty at the international level (Eurojust, 2023). Again, the focus is on the balance of efficiency and the validity of justice, thereby incorporating justice technologies and the protection of human rights.

2.8 Research Gap

There is ample research on digital justice, online hearings, and digital evidence, but few scholars analyze the electronic testimony of witnesses in both the EU and the Common Law systems comparatively (Alawida et al., 2022; Bartoli, 2025). Current research considers the lack of unified procedural standards for the recognition and validation of technology in relation to the preservation of a fair trial in the context of cross-border virtual testimony.

This is especially true regarding the impact of technological advancements on the balance of justice and digital equality. This research attempts to fill the void created by the lack of studies offering a comparative analysis of the EU and Common Law digital witness testimony systems in cross-border cases.

3. Research Methodology

3.1 Research Design

This study used a qualitative, doctrinal, legal research design to analyze the standards that govern the procedure of electronic witnesses in cross-border litigation. The study was

mainly concerned with the analysis of the principles of law, statutes, case law, and the procedures that protect the rights of remote witnesses in the EU and certain Common Law jurisdictions. The study adopted a comparative legal analysis to identify the similarities, dissimilarities, and challenges of the procedures of the two legal systems.

3.2 Research Approach

This study compared the EU and Common Law system components regarding the procedural aspects of electronic witness testimony. This comparative analysis studied the treatment of virtual testimony and evidence, procedural fairness, and the discretion of the judge in the EU and in the procedural codes of the U.K., the U.S.A., Canada, and Australia. This comparison facilitated the assessment of legal harmonization and procedural divergence concerning cross-border virtual arrangements.

3.3 Sources of Data

3.3.1 Primary Sources

The primary legal sources included Regulation (EU) 2018/1805, relevant EU directives and regulations related to judicial cooperation and digital evidence, judicial decisions, and case law, national procedural laws, and international treaties and conventions regarding cross-border criminal collaboration and electronic evidence.

3.3.2 Secondary Sources

Secondary sources included peer-reviewed journal articles, law review articles, books, legal commentaries, institutional publications, and policy reports discussing digital justice, remote hearings, procedural safeguards, and electronic witness testimony.

3.4 Legal Materials Collection

This research systematically reviewed legal statutes, regulations, treaties, judicial precedents, and other legal materials available in primary legal sources. This research explored the electronic testimony procedural rules and the institutional legal systems and international policies related to the digital justice systems and virtual courts. The research investigated virtual courts and electronic testimony systems.

3.5 Data Analysis Technique

The study involved the analysis of procedural protections interpretable via the lenses of the standard of evidence, the right to a fair trial, and the consideration of technology within the context of cross-border electronic testimony.

3.6 Ethical Considerations

The study consistently adhered to standards of citation and referencing. Authentic legal and academic sources were selected, and comparative analysis was undertaken with objectivity and impartiality to ensure the integrity and validity of the analysis.

4. Legal and Procedural Frameworks of Electronic Witness Testimony

4.1 Electronic Witness Testimony under EU Judicial Cooperation Frameworks

The European Union's incorporation of electronic witness testimony into its cross-border cooperation model aimed to address some of the inefficiencies stemming from the increasingly complex nature of trans-border crime (Alawida et al., 2022; Bartoli, 2025). The EU regulation 2018/1805 aimed to enhance mutual recognition of freezing and confiscation orders and provide more support for the coordination of cross-border activities. This regulation aimed to simplify and, to an extent, streamline cross-border court procedures by reducing redundant steps and by formalizing and encouraging direct relation among the relevant authorities (Messele, 2025; Doroga & Bercea, 2023).

According to the mutual recognition principle of the EU's judicial cooperation framework, member states had to act, with very few formalities, on the requests for the execution of judgments that were issued by other member states (Jackson & Summers, 2012; Mitsilegas, 2016). Cross-border cooperation in digital and evidence-based procedures was further facilitated by institutions like Eurojust, the European Judicial Network, and the European Public Prosecutor's Office (Cami & Karsai, 2025). The Judicial Authorities were responsible for conducting remote hearings and for upholding the EU legal standards and national standards in the course of assuring the right of the parties to the procedure.

4.2 Evidentiary Standards in EU Cross-Border Proceedings

In the EU, electronic testimonies were required to meet standards of admissibility, authenticity, and reliability concerning evidence in cross-border proceedings (Kiršienė et al., 2022; Sourdin et al., 2020). EU courts had to determine if remote testimony was compliant with the procedural rules and the EU's fair trial guarantees. Authentication procedures had to be utilized to protect the witness, prevent tampering, and maintain the integrity of the evidence being transmitted (Caianiello, 2025).

Examples of procedural safeguards were secure communication systems, remote testimony controlled by the judge, protection and preservation of the witness's confidentiality, and adequate opportunity to conduct a thorough and effective cross-examination. Judicial control was vital to protecting the integrity of the evidence and preventing the case from becoming technologically unmanageable and compromising the right of the accused to a fair trial.

4.3 Common Law Approaches toward Electronic Witness Testimony

4.3.1 United Kingdom

The United Kingdom furthered its practice of electronic testimony through the reforms and provisions of the Criminal Justice Act 2003. Courts would now allow the use of live-link testimony for vulnerable and child witnesses as well as witnesses situated overseas (Caianiello, 2025; Cami & Karsai, 2025). This advancement served the needs of justice. Concerned judicial authorities introduced procedure reforms to secure witness confidentiality as well as effective cross-examination in the virtual setting (Ahmed, 2023).

4.3.2 United States

In the U.S., the Federal Rules of Evidence and the protections under the Sixth Amendment's Confrontation Clause placed boundaries on electronic witness testimony. Courts here have maintained that witness testimony given remotely must allow for a face-to-face confrontation and an opportunity to conduct cross-examination (Dzehtsiarou, 2021). The expansion of the use of remote hearings, due to the global pandemic, was done with a great deal of apprehension, particularly as it pertains to the effect remote witness testimony would have on the assessment of a witness's credibility and the fairness of the proceedings (Chin, 2021).

4.3.3 Canada and Australia

The courts of Canada and Australia took a flexible approach to remote testimony and used their discretion to ensure virtual hearings occurred when closure was maintained (Dzehtsiarou, 2021). Remote testimony through technology became especially popular for cross-border disputes and for remote jurisdictions. Priority was placed on balancing efficiency, procedural fairness, and ensuring all parties had an equal opportunity to participate in the proceedings in the courts of both countries (Hodgson, 2024).

4.4 Technological and Procedural Challenges

The inclusion of electronic witness testimony posed a number of challenges, both technological and procedural. In the case of remote testimony via videoconferencing, disruption of the connection, loss of synchronization of the audio component, and other unexpected interruptions resulted in poor quality of communication and interruptions in the ongoing proceedings (Brodowski & Szabó, 2024). The introduction of a digital courtroom system and other electronic case management systems and accessory applications raised additional concerns with regard to the protection of data, hacking, and breaches of the system during court proceedings (Alawida et al., 2022).

There were challenges of preserving digital evidence, the integrity of the digital evidence, and establishing the true identity of the witness in the digital environment (Greenleaf, 2021). Courts needed to have systems to prevent the coaching of witnesses and to obstruct unauthorized third parties from influencing witnesses during court testimony (Caianiello, 2025; Cami & Karsai, 2025). The administration of oaths during virtual court proceedings raised legal issues concerning the exercise of jurisdiction and the enforceability of court procedures.

4.5 Human Rights and Fair Trial Standards

Electronic witness testimony systems are heavily oriented towards human rights. Article 6 of the European Convention on Human Rights states that the right to a fair hearing is inclusive of effective participation, equal opportunities of both parties, and the right to cross-examine witnesses (Donoghue, 2017; Carrera et al., 2021). Thus, it is up to the courts to ensure the use of virtual proceedings does not tip the scales of justice and ensure appropriate levels of procedural fairness are maintained (Dzehtsiarou, 2021).

Maintaining witness confidentiality and ensuring witness protection are not dispensable when considering remote proceedings. This is especially the case in transnational crimes and

cases that involve vulnerable witnesses and those who are the target of organized criminal activity. Therefore, balancing the rights of witnesses to not have their rights violated and to maintain the integrity of the legal process should be key components of a digital justice system.

4.6 Comparative Analysis and Discussion

4.6.1 Comparative Analysis of Procedural Standards

4.6.1.1 Theme 1: Admissibility of Electronic Testimony

Both common law jurisdictions and EU Member States increasingly embraced remote witness testimony as a legitimate form of evidence in international proceedings. However, there were notable differences in the procedures that governed the admissibility (Caianiello, 2025; Cami & Karsai, 2025). On the EU side, the preferred mechanisms were mutual recognition and the principles of cooperation as contained in the legal frameworks for judicial cooperation, while in common law systems it was mostly a matter of judicial discretion coupled with the standards of evidential fairness (Sellier et al., 2018).

In EU Member States, admissibility was usually connected to the procedures established within domestic law and the EU's fair trial provisions. On the other hand, the common law systems, in particular, the US and the UK, were more particular about the standards of reliability, necessity and procedural fairness when it came to remote witness testimony (De Hert & Papakonstantinou, 2020; Greenleaf, 2021). Courts typically examined the extent to which remote testimony would be able to uphold the principles and the rights of the accused in the context of the need for cross-examination (Donoghue, 2017).

4.6.1.2 Theme 2: Witness Credibility and Reliability

The evaluation of witness credibility remains a primary concern in both systems. Traditional courtroom procedures enabled the judge and the lawyers to evaluate the witness's disposition, body language, and eye contact, as well as the disposition's spontaneity (Donoghue, 2017; Susskind, 2019; Katsh & Rabinovich-Einy, 2017). Virtual testimony provided the opportunity for the witness to be potentially coached or influenced off of the frame, and demonstrated the possibility for an issue of technology's interference (Chronowski et al., 2024).

Generally, the jurisdictions of the EU were concerned with balancing safeguards and judicial supervision to ensure the integrity of evidence, whilst Common Law systems focused more on the oral examination and evidence's adversarial system (Donoghue, 2017; Katsh & Rabinovich-Einy, 2017). There was an assertion that technology, at this level, could worsen the assessment of the judge's opinion of the evidence's reliability, as well as the psychology of the witness examination (Altaani et al., 2024).

4.6.1.3 Theme 3: Cross-Examination and Fair Trial Rights

The right of confrontation and effective cross-examination creates one of the most important legal distinctions between the EU and Common Law systems. In the Fifth and Sixth Amendments, the US Constitution did protect face-to-face interaction between the witness and the accused. This creates a rule within courts that makes them wary of allowing virtual testimony (O'Connell, 2022).

In the EU, Fair Trial Rights primarily come from Article 6 of the European Convention on Human Rights (ECHR) and the Charter of Fundamental Rights of the EU. EU courts paid more attention to equality of arms, effective participation, and balance/proportionality in the legal process than strict physical confrontation. There is a strong sense of interconnectedness in both of these legal systems that suggests testimony provided through virtual means would not be detrimental to the right of a fair trial or participation of the defense.

4.6.1.4 Theme 4: Data Protection and Privacy

The EU framework offered stronger data protection mechanisms as electronic processes were shaped by the General Data Protection Regulation (GDPR) and EU digital rights policies. Courts and judicial bodies had to maintain confidentiality, secure data processing, and ensure protection against the unauthorized disclosure of data (De Hert & Papakonstantinou, 2020).

Common law systems also acknowledged privacy and cybersecurity issues, but protections were inconsistent and varied from one jurisdiction to another. The increased presence of cross-border digital testimony heightened the risk of unauthorized recording, cyber-attacks, data leakage, and illicit surveillance (Alawida et al., 2022; Bartoli, 2025).

4.6.1.5 Theme 5: Judicial Cooperation and Enforcement

The EU judicial framework advanced procedural coordination through mutual recognition mechanisms and cooperation between institutions. Systems like Eurojust and the European Judicial Network enabled the exchange of evidence and the execution of judicial procedures across borders (Alawida et al., 2022; Bartoli, 2025). By contrast, at least until recently, Common Law systems put more emphasis on the discretion of domestic judges and the mechanisms of bilateral cooperation (Brière, 2021).

When countries used varying approaches regarding rules of admissibility, authentication, and witness examination, enforcement problems occurred (Donoghue, 2017). Such discrepancies disrupted the harmonization of transnational virtual proceedings.

4.7 Major Challenges in Cross-Border Electronic Testimony

Several legal and technological challenges have limited the utility of electronic witness testimony in cross-border cases. There was often a clash between jurisdiction and sovereignty when testimony was from outside the territorial power (Donoghue, 2017). Courts have also experienced many technical issues like internet connectivity and poor quality audiovisual that disrupted the testimony process and affected the accuracy of the communication (Susskind, 2019).

Difficulties in remote testimony in international cases were also exacerbated by communication gaps and difficulties in interpreting. Concerns regarding the authentication of digital testimony and the integrity of testimony remained high, as courts required reliable methods to establish witness identity and prevent external interference and influence (Gál, 2024). Finally, the digital divide and varying accessibility to technology created procedural inequality and inequity among the testimony participants. The lack of adequate digital infrastructure, secure digital platforms, and technical expertise created inequalities among the participants.

4.8 Discussion Linked with Previous Literature

The results corroborated recent research indicating that digital justice systems enhanced efficiency at the cost of due process and fairness in the balance of evidence. Remote hearings made justice more accessible while reducing procedural backlogs, especially after COVID-19 (Katsh & Rabinovich-Einy, 2017). At the same time, scholars warned that focusing on efficiency at the expense of fairness was a dangerous tradeoff in the context of digital justice.

The results also confirmed the presence of Procedural Justice Theory. Fairness, transparency, neutrality, and the right to participate were all critical to the legitimacy of virtual justice. Likewise, due process rights also meant that regardless of the technology used, the defendant retained the right to fully participate and to confront (De Hert & Papakonstantinou, 2020). Finally, Legal Harmonization Theory was applicable to the EU's ongoing efforts to build mutual trust and digital interoperability in the context of cross-border justice and procedural systems.

4.9 Comparative Findings

The comparative study showed that there were points of similarity in both the Common Law and EU systems. Both systems acknowledged the need for procedural safeguards and the issues that cybersecurity posed for the systems of authentication and the reliability of evidence (Altaani et al., 2024; Ahmed, 2023). Both systems were in support of electronic evidence and were in support of virtual proceedings for the protection of witnesses as well as for the efficiency and the speed of the court (O'Connell, 2022). Both systems recognized the importance of procedural safeguards.

There remained important discrepancies in procedural systems. EU Common Law focused on the priorities of institutions, of integration and harmonisation and of mutual recognition, whereas Common Law put more weight upon the priorities of the adversarial procedures, of oral confrontation, and of judicial discretion (Martufi, 2020; De Hert & Papakonstantinou, 2020). The strength of the EU Common Law system rested more upon the integration of the procedures and the cooperation of digital means, as opposed to the strength of the Common Law systems.

In general, neither system provided, in isolation, an adequate framework for the provision of cross-border electronic evidence (Brière, 2021; Caianiello, 2025). Therefore, in order to achieve effective procedural harmonisation, EU systems of judicial cooperation along with a focus on protecting evidence and the right to confront would need to be integrated (Mitsilegas, 2016).

5. Conclusion

5.1 Summary of Major Findings

This study looked at the procedural standards around electronic witness testimony, especially for cross-border trials under EU Regulation 2018/1805 and a handful of selected Common Law jurisdictions. Overall the research found a few procedural similarities, sort of like more reliance on virtual testimony, more explicit recognition of digital justice mechanisms, and the procedural safeguards that are needed to keep things fair and protect evidentiary

integrity, all that kind of matter. Both EU and Common Law jurisdictions also seemed to agree on how electronic testimony helps witness participation, cuts down procedural delays, and supports international judicial cooperation when you're dealing with transnational criminal proceedings.

At the same time, there were notable procedural differences too. The EU framework leaned hard into mutual recognition, judicial cooperation, and a more harmonized procedural coordination, whereas Common Law systems put a stronger spotlight on adversarial procedure, confrontation rights, and the judge's own discretion. The study also flagged ongoing concerns about admissibility standards, how witness credibility is assessed, cybersecurity issues, authentication steps, and the protection of fair trial rights during remote proceedings

5.2 Overall Conclusion

The study concluded that the procedural frameworks that already exist have really boosted the efficiency and access, for cross-border criminal proceedings by way of electronic witness testimony. Still though, the legal frameworks today stay only partly aligned, especially when it comes to evidentiary thresholds, technology safeguards, and the kind of procedural fairness protections people actually need. So, the rising digitalization of justice systems basically means that procedure needs modernization, not just upgrades, plus stronger international coordination, and standards that are more harmonized overall. Those standards should be able to balance speed with human rights guarantees, and due process safeguards.

5.3 Contribution to Knowledge

This research sort of contributed to comparative legal scholarship by looking closely at EU and Common Law angles on electronic witness testimony, especially for cross border trials. It also broadened the current digital justice literature, in a way that mattered, by analyzing procedural fairness, technological dependability, and the evidentiary difficulties tied to remote testimony. Additionally, the study gave useful perspective on the continued discussions about procedural harmonization within international criminal justice systems, which is kinda central these days.

5.4 Limitations of the Study

The study was limited because it mostly zoomed in on selected EU and Common Law jurisdictions, and it didn't really check in a comprehensive way on Non-European legal systems. Also, fast technological developments can't help but influence the long-term usability of today's legal frameworks and procedural standards, even if the link isn't instantly obvious. On top of that, the research leaned primarily on doctrinal legal analysis instead of doing an empirical look at how courts actually behave in practice.

5.5 Future Research Directions

Future research must empirically study judges, lawyers, and witnesses in remote hearings. Other studies may investigate artificial intelligence and blockchain technology for the verification of witnesses and digital evidence. Additionally, research comparing jurisdictions in Asia, Africa, and the Middle East will improve our understanding of global procedural harmonization regarding electronic witness testimony.

5.6 Recommendations and Policy Implications

5.6.1 Harmonization of Procedural Standards

The study advocates for more international alignment of procedural standards concerning electronic witness testimony in international litigation. Unification of the admissibility, authentication, and stability of the evidence of the EU system and the Common Law systems is needed. Disparities in the systems create barriers for international organizations, and regional bodies, focusing on digital evidence and developing protocols and model procedural frameworks.

5.6.2 Technological Improvements

There must be investments in consistent, secure, digital testimony systems with guaranteed confidentiality, and reliable, seamless functionality that can withstand remote testimony challenges. Authentication of identity and remote testimony systems strengthened with AI technology will make identity verification of witnesses safer and reduce the risk of evidence tampering and external interference. To safeguard information integrity and the evidence, the judicial sector must improve communication systems and secure digital storage.

5.6.3 Judicial and Professional Training

The successful use of electronic witness testimony means that judges, lawyers, and prosecuting and court staff need to have ongoing electronic evidence training and instruction on remote hearing protocols. Judges need to increase their skills in virtual hearings, the cybersecurity risks, and how to authenticate evidence. Training programs should support the development of cross-border judicial collaboration and enhance the ability of institutions to implement digital justice systems.

5.6.3 Human Rights Protection Measures

Virtual evidence laws must ensure witness protection, imbalance concerns, accessibility, and transparency. Courts must respect evidence confidentiality and ensure protection and procedural fairness. Vulnerable defendants and witnesses should be prioritized.

5.6.4 International Cooperation Enhancements

Effective cross-border virtual proceedings require stronger collaboration of the EU and Common Law jurisdictions. Countries should enter into digital justice pacts and create uniform procedural standards about electronic witness testimony, authentication, and the cybersecurity and enforcement mechanisms used in cross-border litigation.

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