

Digitalization of Justice in the United States: Case Management Electronic Case Files (CMECF) and Public Access to Court Electronic Records (PACER)



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ABSTRACT:

Relevance. The relevance of scientific research is that digitalization of justice is the process of introducing digital technologies into judicial systems in order to increase their efficiency, accessibility and transparency. In the United States, where the legal system is decentralized and has a variety of approaches in different states, digitalization is of particular importance. In this article, the author examines examples of digitalization of the judicial process and justice in some states of America (using the example of the states of New York, Texas, Florida, Arizona, Pennsylvania, Oregon, Montana, Minnesota, etc.). CM/ECF (Case Management/Electronic Case Files) and PACER (Public Access to Court Electronic Records) systems are key elements in the digitalization of the U.S. federal judiciary. They provide electronic management of court cases and provide public access to court documents. These systems play an important role in increasing the transparency, efficiency and accessibility of justice.

Purpose of the article. The purpose of the article is to study the concept, content and nature of the digitalization of Justice in the United States. The author's goal was to achieve several results that together could answer the question: how to make the effect of digitalization of justice as large and useful as possible for citizens and the whole society as efficiently as possible, avoiding risks. It seems that this goal was achieved mainly through an analysis of the legislation of the US states, each of which has its own characteristics in the field of electronic filing of court documents, electronic justice and digitalization of court hearings, as well as online participation of parties in the court case.

Methods. The leading method of researching the problem was the deductive method, which made it possible to study the legal nature of the digitalization of Justice in the United States. The article uses inductive method, method of system scientific analysis, comparative legal methods. The leading method underlying the solution to the problem is the inductive method, which consists in analyzing the legislation of the US states and identifying the general trend and vector of development of digitalization at the federal level.

Results. The article concluded that the digitalization of judicial systems in the states of Pennsylvania, Oregon, Montana, Minnesota, Virginia, Georgia, Utah, Louisiana, Nevada, Illinois, Vermont, Missouri, Nebraska, etc. demonstrates a variety of approaches to electronic case management and digital justice. Each state implements unique technologies such as video conferencing, blockchain, artificial intelligence and automation. These innovations increase the efficiency, transparency and accessibility of justice, but their implementation comes with certain challenges, such as technical problems, ethical issues and high costs.

KEY WORDS: digitalization of justice, US judicial system, CMECF, PACER, digital technologies, AI, electronic filing system, video conferencing, automated case management system.

1. INTRODUCTION

CM/ECF (Case Management/Electronic Case Files) and PACER (Public Access to Court Electronic Records) systems are key elements of digitalization of the US federal judicial system, providing electronic management of court cases and providing public access to court documents [3]. In addition, these systems play an important role in increasing the transparency, efficiency and accessibility of justice. Let's take a closer look at them. CM/ECF is a system designed to manage court cases electronically. It is

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used by U.S. federal courts, including district courts, appellate courts, and bankruptcy courts. The main functions of the system include the following elements: 1) *electronic filing* (lawyers, parties to the case and other participants in the process can submit documents to the court via the Internet, which eliminates almost completely paper document flow), 2) *case management* (the system allows judges and court staff to manage cases, schedule hearings, track deadlines and store all documents electronically), 3) *notifications* (CM/ECF automatically sends notifications to participants in the process about new documents, court decisions and other important events).

PACER is a system that provides public access to federal court electronic records. It allows anyone, including lawyers, journalists, researchers and ordinary citizens, to view and download court documents. PACER's main functions include: a) case retrieval (users can search for cases by number, party name or keywords), b) document access (PACER provides access to various documents, including lawsuits, court decisions, hearing records and other materials), c) notifications (users can subscribe to notifications about new documents in cases of interest to them). A plurality of PACER parameters for each court are transmitted each evening to the U.S. Party/Case Index located at the PACER service center in San Antonio, Texas.¹

It is also important to note that CM/ECF and PACER are closely related. Documents filed through CM/ECF are automatically made available in PACER (except where documents are classified). This ensures a continuous flow of information between the courts and the public. Despite their advantages, both systems have some disadvantages, which we can include, for example: the cost of access to PACER (despite the fact that access to PACER is paid (\$0.10 per page), many believe that information should be free and open to everyone, since it is funded by taxes); technical difficulties of use (some users complain about the complexity of the interface and limited search capabilities); confidentiality (there are concerns about the protection of personal data, especially in cases involving minors or victims of crime).

2. METHODOLOGICAL BASE

Research studies on the digitalization of justice in the United States focus on several key aspects: a) efficiency (studies show that digitalization significantly increases the efficiency of trials, reducing case time and reducing costs; b) accessibility (digital technologies make justice more accessible to citizens, especially in remote regions); c) transparency (it is obvious that electronic document management systems and online platforms increase the transparency of litigation). However, there are also risks associated with digitalization, such as data protection problems, inequality in access to technology and a possible decrease in the quality of justice due to excessive automation. Digitalization in justice covers a wide range of technologies that include electronic *filing systems*, videoconferencing for hearings, automated case management systems, and the use of artificial intelligence (AI) to analyze legal data. These technologies are aimed at speeding up processes, reducing costs and increasing the availability of justice for citizens.

3. CONCLUSION

Digitalization of judicial systems in the United States is actively developing, and each state is introducing unique approaches to electronic case management and digital justice. Examples from different states show that the adoption of digital technologies can significantly increase the efficiency, accessibility and transparency of justice. However, to successfully implement these initiatives, it is necessary to take into account potential risks and ensure equal access to technology for all citizens.

The leader in digital justice is *Washington*, which has hosted the United States Digital Service since 2014, which provides consulting services to federal IT agencies. Its objectives included improving and simplifying digital services as well as federal sites. In 2025, the USDS was renamed and reorganized as the United States DOGE Service,² which includes the Department of Government Effectiveness.³ Washington uses the Washington Courts eFiling system for electronic filing and case management. This system allows attorneys and litigants to file, track the status of cases, and receive notifications online. Washington also implemented the Online Dispute Resolution (ODR) system to settle minor civil disputes. This program is especially useful for residents of remote regions where access to courts is limited.

¹https://www.rtvus.com/news/ehlektronnoe_pravosudie_v_ssha_zarubezhnyj_opyt/2018-07-25-171

²On January 20, 2025 Donald Trump issued an executive order reorganizing and renaming USDS as the United States DOGE Service, where DOGE stands for Department of Government Efficiency. Trump subsequently appointed billionaire and SpaceX owner Elon Musk to manage the new department. The executive order also established a temporary organization within the United States DOGE Service, called the U.S. DOGE Service Temporary Organization (USDSTO).

³<https://www.whitehouse.gov/presidential-actions/2025/01/establishing-and-implementing-the-presidents-department-of-government-efficiency/>

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For example, *California* has implemented an e-filing system *that* allows lawyers and litigants to file documents over the Internet. ¹This significantly reduces the time and cost associated with paper workflow. A 2020 study found that using e-filing in California reduced document processing time by 30% and reduced manual data entry errors. ²In addition, California has developed the ACLU Mobile Justice application, in which you can watch live streamvideos of various state offices of the American Civil Liberties Union on smartphones, which is important for providing instant secure video recording and transmission of interactions with law enforcement officers and alleged abuse. The app allows users to record incidents and send a copy of the video to ACLU staff within seconds. The resulting videos are being checked for criminal activity.

New York State has implemented an electronic case management system (eCourts), ³which includes electronic filing (e-filing) and automated case assignment. This system is used in both civil and criminal cases. For example, in the New York Supreme Court, e-filing has been mandatory for all attorneys since 2018. New York has also implemented an electronic notification (eNotifications) system that automatically informs process participants of new documents and hearing dates. This reduces the burden on court clerks and increases the efficiency of communication. In New York State, video conferencing is actively used for hearings, especially in criminal cases. This became especially relevant during the COVID-19 pandemic, when the courts were forced to switch to a remote work format. A study by the University of New York found that videoconferencing not only reduces case time, but also increases the availability of justice for remote regions.

The state of *Florida* uses the ePortal system ⁴for electronic filing and case management. ⁵This system is integrated with courts at all levels, including district and appellate courts. The state of Florida has implemented online dispute resolution (ODR) platforms that allow parties to resolve conflicts without the need for in-person court attendance. This is particularly useful for small civil cases such as landlord-tenant disputes. For example, the Florida Courts E-Filing Portal platform allows parties to resolve disputes without the need for in-person court attendance. This is particularly useful for small civil cases such as landlord-tenant disputes.

The state of *Texas* uses the eFileTexas system for electronic filing. This system is integrated with courts at all levels and allows lawyers and litigants to file online. Texas is actively introducing artificial intelligence (AI) to analyze court decisions and predict the outcome of cases. For example, the Case Cruncher system uses machine learning algorithms to analyze large amounts of data and provide recommendations to judges and lawyers.

Texas has developed an artificial intelligence-based system that analyzes court decisions and helps judges and lawyers find precedents. This system uses machine learning algorithms to process large amounts of data.

Arizona State uses the AZTurboCourt system for electronic filing and case management. ⁶This system allows process participants to submit documents, pay fees and receive online notifications. ⁷Arizona is one of the first states to implement blockchain to ensure the security and transparency of lawsuits. For example, the Arizona Supreme Court Blockchain Initiative system uses blockchain to store and review court documents. Arizona has also implemented a digital ID system that allows process participants to verify their identity online. This is especially useful for remote hearings and online dispute resolution.

The State of *Pennsylvania* has implemented PACFile for electronic filing in appellate courts and eDocket for case management in general courts [2]. These systems allow attorneys and litigants to file, track the status of cases and receive online notifications. During the COVID-19 pandemic, Pennsylvania actively used video conferencing for hearings. For example, the Pennsylvania Supreme Court has held more than 500 remote hearings in 2020, allowing cases to proceed without delay. Pennsylvania also implemented the Online Dispute Resolution (ODR) program to settle minor civil disputes. This program is especially useful for residents of remote regions where access to courts is limited.

¹<https://sf.courts.ca.gov/online-services/e-filing>

²<https://www.cacd.uscourts.gov/e-filing>

³<https://e-courts.org/agenda/>

⁴The ePortal is a web site that provides eFiling and eRecording capability to users with a single statewide login. Users may utilize the ePortal web interface to submit documents to Clerks and Recorders. The ePortal also supports automated interfaces with other submitter systems. The ePortal supports transmissions to/from the local case/recording systems using national XML standards. The ePortal also provides electronic notifications and service on behalf of filers.

⁵<https://levyclerk.com/wp-content/uploads/Florida-ePortal-and-eFiling-FAQs.pdf>

⁶<https://azcourthelp.org/azturbocourt>

⁷The AZTurboCourt website includes links to the Arizona Judicial Branch's online services, known as eServices. One of the featured online services is electronic filing, commonly referred to as eFiling. The AZTurboCourt.gov eFiling service guides filers through the process of preparing case submissions by asking a series of questions in an interview-like fashion.

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Oregon State uses the Oregon eCourt system for electronic filing and case management. ¹This system is integrated with courts of all levels and allows participants in the process to submit documents, pay fees and receive notifications online. Oregon implemented the Oregon Judicial Case Information (OJIN) system, which provides public access to court documents. This increases the transparency of trials and allows citizens to monitor the progress of cases. Oregon also actively uses blockchain technology to ensure the security and transparency of court documents. For example, the Oregon Blockchain Initiative system uses blockchain to store and verify court decisions [1].

Montana State uses the eFiling system for electronic filing and case management. This system allows attorneys and litigants to file and access information online. Montana actively uses videoconferencing to conduct remote hearings, especially in remote regions where access to courts is limited. Montana has also implemented the Montana Legal Services program, which provides free legal advice over the Internet. This is particularly useful for residents of remote regions where access to legal aid is limited.

Minnesota uses the eFileMN system for electronic filing and case management. ²This system is integrated with courts of all levels and allows participants in the process to submit documents, pay fees and receive notifications online. Minnesota is actively introducing artificial intelligence (AI) to analyze court decisions and predict the outcome of cases. For example, the Minnesota Case Analyzer system uses machine learning algorithms to analyze large amounts of data and provide guidance to judges and attorneys. Minnesota also uses automated systems to manage cases and schedule hearings. This reduces the burden on court clerks and increases the efficiency of the courts.

Virginia has implemented the Virginia Judicial System eCourts for electronic filing and case management. This system allows attorneys and litigants to file, track the status of cases, and receive notifications online. Virginia has also implemented the Virginia Legal Aid Society program, which provides free legal advice over the Internet. This is particularly useful for residents of remote regions where access to legal aid is limited.

The state of *Georgia* uses the Georgia Courts eFiling system for electronic filing and case management. Since January 2019, electronic filing has become mandatory for attorneys in this state. For people without lawyers, it is optional, they can submit documents in person or by mail at the office of the clerk of the court. ³This system is integrated with courts of all levels and allows participants in the process to submit documents, pay fees and receive notifications online. Georgia implemented the Georgia Public Access to Court Electronic Records (PACER) system, which provides public access to court documents. This increases the transparency of trials and allows citizens to monitor the progress of cases. Georgia also actively uses blockchain technology to ensure the security and transparency of court documents. For example, the Georgia Blockchain Initiative system uses blockchain to store and verify court decisions.⁴

Utah uses the eFileUT system for electronic filing and case management. This system allows attorneys and litigants to file and access information online. Utah has also implemented the Utah Legal Services program, which provides free legal advice over the Internet. This is especially useful for residents of remote regions where access to legal aid is limited [4].

Louisiana uses the Louisiana eFiling system for electronic filing and case management. With its help, users can open court cases and file documents from one site in several Louisiana courts at any time. The Louisiana eFiling system is integrated with vessels of all levels and allows process participants to file, pay fees and receive notifications online. Louisiana is actively implementing artificial intelligence (AI) to analyze court decisions and predict case outcomes. ⁵For example, the Louisiana Case Analyzer system uses machine learning algorithms to analyze large amounts of data and provide guidance to judges and attorneys. Louisiana also uses automated systems to manage cases and schedule hearings. This reduces the burden on court clerks and increases the efficiency of the courts.

The state of *Nevada* uses the Nevada eFile system for electronic filing and case management. This system allows process participants to submit documents, pay fees and receive online notifications. Nevada is one of the first states to implement blockchain to ensure the security and transparency of lawsuits. For example, the Nevada Supreme Court Blockchain Initiative system uses blockchain to store and review court documents. Nevada has also implemented a digital ID system that allows process participants to verify their identity online. This is especially useful for remote hearings and online dispute resolution. Also, for

¹<https://themagazine.co.uk/2024/09/03/oregon-ecourts-modernization/>

²<https://www.revenue.state.mn.us/free-electronic-filing>

³<https://www.gabar.org/efiling.cfm>

⁴<https://www.utcourts.gov/en/legal-help/legal-help/procedures/filing/efiling/district.html>

⁵<https://efileus.com/eFileLA/>

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electronic filing of documents in Nevada courts, you can use third-party services, for example, InfoTrack. They allow filing and maintenance of documents in Clark and Washoe counties.¹

The state of *Illinois* uses the eFileIL system for electronic filing and case management. It is a centralized electronic manager that is required to file all civil cases in the Illinois Supreme, Appellate and District Courts and can be used to file criminal, quasi-criminal and juvenile cases. The eFileIL system is integrated with courts at all levels and allows process participants to file, pay fees and receive notifications online. ²Illinois actively uses artificial intelligence and machine learning technologies to analyze court decisions and predict the outcome of cases. For example, the Illinois Case Analyzer system uses machine learning algorithms to analyze large amounts of data and provide guidance to judges and attorneys. Illinois has also implemented the Illinois Legal Aid Online program, which provides free legal advice over the Internet. This is particularly useful for residents of remote regions where access to legal aid is limited.

The State of *Vermont* uses the Vermont Judicial eFiling system for electronic filing and case management. This system allows attorneys and litigants to file and access information online. Note that the state of Vermont actively uses video conferencing for remote hearings, especially in remote regions where access to courts is limited. For example, in 2024, more than 70% of hearings in Vermont were held via videoconference. ³Vermont has also implemented the Vermont Legal Aid program, which provides free legal advice over the Internet. This is particularly useful for residents of remote regions where access to legal aid is limited.⁴

Missouri uses the Missouri eFiling system for electronic filing and case management. This system is integrated with courts of all levels and allows participants in the process to submit documents, pay fees and receive notifications online. Missouri is actively introducing artificial intelligence (AI) to analyze court decisions and predict the outcome of cases. ⁵For example, the Missouri Case Analyzer system uses machine learning algorithms to analyze large amounts of data and provide guidance to judges and attorneys. Missouri also uses automated systems to manage cases and schedule hearings. This reduces the burden on court clerks and increases the efficiency of the courts.

The state of *Nebraska* uses the Nebraska eFiling system for electronic filing and case management. This system is integrated with courts of all levels and allows participants in the process to submit documents, pay fees and receive notifications online. Nebraska actively uses artificial intelligence and machine learning technologies to analyze court decisions and predict case outcomes. For example, the Nebraska Case Analyzer system uses machine learning algorithms to analyze large amounts of data and provide guidance to judges and attorneys. Nebraska has also implemented the Nebraska Legal Aid Online program, which provides free legal advice over the Internet, which we believe is especially helpful for residents of remote regions where access to legal aid is limited.⁶

4. RECOMMENDATIONS

Thus, it can be concluded that the digitalization of judicial systems in the states of Pennsylvania, Oregon, Montana, Minnesota, Virginia, Georgia, Utah, Louisiana, Nevada, Illinois, Vermont, Missouri, Nebraska, etc. demonstrates a variety of approaches to electronic case management and digital justice. Each state implements unique technologies such as video conferencing, blockchain, artificial intelligence and automation. These innovations increase the efficiency, transparency and accessibility of justice, but their implementation comes with certain challenges, such as technical problems, ethical issues and high costs.

5. RESULTS

CM/ECF and PACER are important tools for the digitalization of justice in the United States. They provide effective case management and transparency in litigation. However, to fully realize their potential, existing problems related to access, usability and data protection must be addressed.

The advantages of CM/ECF are: a) saving time and resources (electronic submission of documents reduces the time for processing and delivery), b) convenience (process participants can submit documents and access information at any time from

¹<https://www.onelegal.com/blog/navigating-the-new-era-of-efiling-in-nevada-with-one-legal/>

²<https://efile.illinoiscourts.gov>

³<https://vermontrepublic.org/new-court-e-filing-system-in-vermont/>

⁴<https://www.vermontjudiciary.org/about-vermont-judiciary/electronic-access/electronic-filing>

⁵<https://capessokol.com/insights/out-with-the-oldin-with-the-new-missouri-efiling-system/>

⁶<https://www.paralegalbrief.com/efiling/nebraska/>

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anywhere in the world), c) reducing errors (automation of processes reduces the likelihood of errors associated with manual data entry). For example, in the District Court for the Northern District of California, CM/ECF is used to manage thousands of cases annually. The system allows judges and lawyers to quickly access documents, which greatly speeds up the case process.

The advantages of PACER are: firstly, the transparency of the system (PACER makes litigation more transparent, allowing the public to follow the progress of cases), secondly, accessibility (the system provides access to information 24/7, which is especially useful for researchers and journalists), thirdly, archiving (PACER serves as an archive of court documents, which facilitates access to historical data). For example, journalists often use PACER to obtain information about high-profile lawsuits. In 2020, PACER played a key role in reporting on elections and the COVID-19 pandemic, providing access to important documents.

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