Technology in Court: Implementing Technology To Foster Court Reform in Indonesia

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Abstract: The paper analyzed how technology supports the functionality of the courts. Based on the previous studies and data analyze, we found that courts and technology are the two entities that can no longer be separated. On the other hand, today, technology has even become an inherent part of the judicial system. We can even say that the existence of the judiciary depends very much on the reliability of information technology. Therefore, the formulation of the latest policies in the judiciary, in the future, must always be directed at the massive and inclusive application of information technology. The use of technology for the judiciary must focus on three things, namely increasing public access to judicial institutions (accessibility), minimizing delays in handling cases, and realizing a clean governance of judicial institutions (free of corruption).

Keywords: Court, Technology, Accessibility, Transparency, Accountability

1. Introduction

The court system refers to its main function in deciding cases. This system includes two supporting aspects, namely case administration and general administration. Case administration is the court's core business, which includes all case administration activities from the time a case is registered until it is decided. It also covers all matters relating to case reporting, trial management, handling complaints on case services, and other case handling activities. Meanwhile, general administration as a supporting unit includes all activities intended to support the Court's core business, including general administration, finance, personnel, and the use of information technology.[1]

Before the reform of the judiciary was echoed in such a way, the image of the Court was still far from what was expected. Judicial institutions are still considered closed and difficult to access important information in them. Likewise, in the context of the use of technology, the judiciary is considered to have not made good use of the existence of technological infrastructure in supporting its function of serving the community and being the main agent for law enforcement and justice. This situation is not much different from the judicial institutions of other countries which until the late 1980s were also not very familiar with the use of information technology in supporting the functions of the judiciary.

Singapore – as one of the countries that is currently considered the most advanced in its judicial system – even started campaigning for the use of information technology to support the Court's work system in mid-1995. Karen Blochinget stated that the then Chief Justice of the Supreme Court of Singapore, Chief Justice Yong Pung How, instruct the application of

information technology so that all court computers are integrated or connected to each other.[2] The application of information technology is intended to improve the accuracy and efficiency of data disclosure in courts for settlement purposes.

It took about a decade for the Singapore courts to be able to transform from a court with case backlog to a court that was able to resolve every case quickly, effectively, and efficiently. Moreover, the massive and inclusive use of information technology has succeeded in regenerating public trust in the judiciary and has received awards from the international community as one of the best and accountable judicial systems in the world.

Singapore's court experience from Singapore shows that information technology can be used to support judicial reform programs. Dory Reiling in her research concludes that the use of information technology is centered on efforts to deal with three main problems in the judiciary, namely the protracted handling of cases, the difficulty of accessing courts for certain community groups, and the corrupt behavior of the court apparatus.[3]

This paper tries to describe the use of technology in an effort to support judicial reform in Indonesia. It will reveal the initial thoughts related to the use of information technology in court, the current development of its use, and the projected application in other aspects that have not been touched. From this, the framework for using this technology will be described as a model of an inclusive approach in an effort to continue to encourage the functionality of the judiciary as the main guard in law enforcement and justice.

2. Scope of Technology Utilization

The basic question we want to ask and become the basis for the discussion of this treatise is the extent to "which the scope of the use of information technology in supporting the work of the judiciary is?". "Does every aspect of the judiciary have to implement information technology?". To answer this, we can look at some of the latest research related to the use of technology in the judiciary. One that is quite comprehensive in researching this is John M. Greacen in his research "18 Ways Courts Should Use Technology To Better Serve Their Customers".[4]

This study targets a number of respondents in the United States of the judicial services they have received so far. Interesting things from this research can be seen, for example, in the overview section. Says Greacen:

"It is clear from this research that court customers expect the courts to use technology to solve many of their customer service problems. This is not surprising. In all other aspects of daily life customers are used to—and demand—services that are available to them through the internet. People go online to order groceries and retail goods, they bank online, they renew their driver's licenses online, they buy homes online, they find information on every issue under the sun online, and they videoconference and Skype with family, friends, and business partners around the world. It is also clear from this NCSC research, though, that court customers find the state courts to be severely lacking in these capabilities".[5]

In his research, Greacen found that the public expects courts to use technology to serve the public. The use of this technology is intended to overcome the obstacles encountered in court services. What the public expect is actually in line with the use of technology in everyday life. Almost all aspects of people's lives today rely on information technology to facilitate their activities. Speed, accuracy, and transparency are the guarantees provided by information technology-based public services. This is what the public in the United States feels that in the last few years, the Court has not been able to provide services that meet these expectations. Thus, it is hoped that the court will be able to immediately change the basis and orientation of its services by utilizing information technology as much as possible.[6]

Greacen's research found that there are at least 18 areas where information technology can be applied in the realm of law enforcement to improve the quality of services to the public. The 18 areas of utilization of information technology are as follows.

2.1. Enabling customers to obtain information and court services using their smartphones

The application of information technology allows the parties to access information related to the court and specifically their case through their smartphones. Thus, without having to come directly to the court, the parties can easily get the latest information regarding the court and/or the progress of their case handling.[7] This application is an embodiment of "responsive design", namely the design of court services by presenting internet-based services and court sites that can be easily accessed by parties using various types of devices.

2.2 Enabling customers to present photos, videos, and other information from their smartphones in the courtroom

Utilization of technology allows the trial process to run more efficiently.[8] One thing that is targeted is the ease of displaying information, photos, and/or videos in the courtroom directly from smartphones connected to hardware and software in the courtroom. For example, the Ninth District Court in Florida has installed hardware and software in each courtroom that allows anyone in the courtroom to display information, photos, and/or video on a wide screen that is visible from every corner of the courtroom. The application is easy to use by anyone without any specific training. We certainly often experience difficulties when authenticating electronic evidence where the parties must come to the court table and watch from the smartphone screen of one of the parties. In fact, by implementing the above, without the need to go to the court table, the parties and all visitors can easily watch the information presented on the big screen. The layout can be seen below:



2.3 Enabling customers to appear in court by telephone or video conference

Many parties who do not use the services of a lawyer have to come to court themselves. For this, they need to incur transportation costs which are burdensome for those on low incomes. For one trial, they have to pay a certain amount of money, so the struggle for legal rights is not cheap. This needs to be facilitated by providing convenience for the parties, such as the possibility of the trial being conducted by teleconference, which has been pre-arranged with technical instructions. Thus, the court gives this possibility to as much as possible reduce costs outside the court fees that must be paid by the parties.

2.4 Enabling parties to schedule hearings at their convenience

In several states, courts prepare applications that allow jurors, attorneys, and principals to propose trial schedules that do not interfere with their daily routines. This means that there is flexibility in determining the trial schedule that can be accepted by all parties because it does not conflict with their daily routine outside the court.[9]

2.5 Enabling parties to pay fees, fines, and other financial obligations online

The use of technology allows parties to pay court fees, fines, and other obligations online. This facility will be very helpful because the parties no longer need to come directly to the Court or the bank to simply pay these costs. It is enough to make a payment through the application provided by the court, then everything has been paid for and the next process can be followed up immediately.

2.6 Enabling wayfinding

Navigation in court is generally displayed offline through banners posted at several points in the courthouse. Courts in the United States generally have implemented an application that displays online navigation and is accessible to the parties. This navigation displays information about the court layout so that, without having to ask the officer, the parties can go directly to the room they are going to for the sake of their case. The availability of adequate information about services and what space to go to makes it easier for parties to effectively go to the room without having to go back and forth due to misperceptions.

2.7 Enabling customers to obtain information and forms remotely

Several courts in America have created their own Youtube accounts which provide important and basic information related to litigation procedures in court, information related to divorce and its consequences for children, as well as a series of processes in filling out forms in court until the issuance of a decision and/or court-issued deeds.

2.8 Simplifying the process of forms completion

In many aspects, we figure out state and private institutions provide a number of forms that can be filled out easily because they are equipped with instructions. In addition, the form is presented in an easily accessible platform, such as Google Form and others. Courts can also provide a similar service by setting standards for easy and coherent filling and enabling virtual interviews so that parties can complete or answer them without experiencing significant difficulties. In filing a lawsuit, for example, the court can prepare a form that has been standardized and the procedure simplified, so that the parties can prepare their own lawsuit and submit it to the case registration system in court.

2.9 Enabling self-represented litigants to file documents electronically

For such a long period of time, we have seen the entire process of filing documents in court had to be done manually, they were coming directly to the court and submitting a hardcopy of the file to the case registration and/or trial section. This process can eventually be shifted to electronic document submission by implementing certain applications that allow the same thing to be done electronically.

2.10 Enabling the creation of an order or judgment at the close of a hearing or trial

Courts in America have developed an application that provides a form that has been adapted in such a way and is able to enter important data in the trial itself into the form for consideration by the judge in deciding cases. This application provides trial data which is then processed quickly and forms the construction of the judge's decision. The judge in this case only needs to analyze the facts and then determine the law.[10] Modifications are made by the judge in several aspects of the form as an adjustment to the decision that will be handed down. This modification is the full responsibility of the Judge. Immediately after that, the judge can read out his decision and can be accessed directly by the parties through his mobile phone.

2.11 Creating an online triaging portal for every jurisdiction

In 2015, Tom Clarke published a manuscript entitled: "Building A Litigant Portal: Business and Technical Requirements". This manuscript features an online tool called the "Litigant Portal" that the public can use to find out if they have a legal problem and if so they can find out how it might be resolved. These devices rely on Artificial Intelligence (AI) to process the data and then analyze the issues raised, whether they have legal implications or not. Furthermore, it will be shown what legal aspects are related and how to resolve them. At a further stage, this tool can detect and conclude whether the litigant deserves legal aid and gets priority in legal handling. If not, then the party in question will be directed to several settlement options, either through court, mediation outside the court, using the services of an advocate as a mediator, and other modes of settlement that can be taken.

2.12 Enabling online dispute resolution

The basic idea of developing an Online Dispute Resolution (ODR) is the provision of an online tool that allows parties to create and submit alternatives (resolutions) for resolving disputes with each other. In general, one of the parties will initiate this activity and invite the other party to participate. The ODR then produces a document containing the agreements that have been reached. The matters that have not been agreed upon will be submitted to the court to be decided.

The Family Court in Clark Courty, Nevada, has incorporated ODR into the child custody mediation system in divorce cases. After the court determines the obligation to carry out mediation for the parties, then each of them provides views and alternatives online. This process allows the parties to involve the Court Mediator in the negotiation process. If the negotiation process fails to reach an agreement, then the process proceeds to the usual procedure (adjudication). A court in Salt Lake City also applies ODR as shown in the following image:



Some of the advantages of implementing ODR are: i) It is possible for the parties to be able to resolve disputes based on their best interests (win-win solutions); ii) The parties can settle the case without having to go to court; iii) ODR tools are available and accessible 24 hours a day and 7 days a week; iv) The implementation of ODR is free of cost even though it may involve a third party facilitating the process for a fee for their services; v) ODR can speed up the settlement of cases; and vi) ODR users have so far expressed satisfaction with the use of the device.

2.13 Enabling automated court messaging to customers

Notifications are crucial in the administration of justice. Appropriate and prompt notification is the main requirement of delivering information to the parties. The court is now familiar with online notifications generated from the system the court has built into the parties' smartphones. Some aspects of court case administration that can use automated notifications to support effective case administration are: i) Reminders regarding the continued litigation process as well as on matters that have been missed by the parties; and ii) Delivery of the latest information on case handling in a timely manner.

2.14 Using messaging to guide customers through their court case

Message delivery technology is also used in delivering information regarding legal procedures for the case in question. The court system records procedural information and then generates messages that are sent to the parties regarding the possible end of the case and the procedural steps that may or must be taken. For example, the Applicant will be repeatedly notified if the requirements submitted are incomplete.

2.15 Using technology to simplify the service of process

Litigants who do not use the services of an advocate often experience obstacles in the judicial process. However, the court can minimize these obstacles by applying technology in the case examination process. For example, the settlement of cases is done by using an e-mail device. Courts routinely send litigation documents to the parties electronically and receive them, for example, via smartphones. One of the parties who is not represented by a legal representative (e.g. the Defendant) can receive litigation documents electronically via a smartphone. His absence from the courtroom due to various reasons justified by law is not an obstacle, because the party can still receive documents and at the same time send their own legal documents. One of the conditions for this application is the activation of GPS on the smartphone, so that the court can monitor the whereabouts of the person concerned.

2.16 Eliminating notarization requirements for court filings

One of the functions of notarization of a deed is to authenticate the identity of the signer of the document and record the testimony of the oath of the signatory that the statements in the document are true. Currently, in the United States, software called e-notarization has been developed which allows online notarization of legal documents filed in court.

2.17 Maintaining a list of each customer's personal needs

Each case management application has a number of information components that are

used to store data on the parties such as names, status (individuals, corporations, partnerships, government entities, and so on), e-mail addresses, and representation status (name, address, and telephone number of the Advocate who represent it, if any). Including in this case, it is possible to store data of the parties such as the need for translators, disabilities, and other needs that will be presented to the judge who hears the case so that the trial arrangements are adjusted to the needs of the parties and the smooth process of handling the case.

2.18 Implementation of a component model case management system

The Technology Committee in America is developing a functional standard for the Case Management System which contains a component model or model of elements/components that will become the basis for future CMS development. An overview of the model components developed in the CMS can be seen below:



3. Priority Setting for Technology Application in Court

The application of technology in judicial institutions has now become a trend in most countries in the world. The perceived benefits of using this technology are significant in encouraging the court reform to meet public expectations for a simple, efficient, fast, and effective judicial process.

For the past years, The Supreme Court has established strategic policies in the use of information technology to support the performance of the judiciary. The use of technology is also intended to create transparency and accountability. The Religious Courts, even long before, had applied information technology as the basis for case administration management. In the mid-2000s, an application for the Information System and Administration of the Religious Courts (SIADPA) was developed and applied, which was then used in all of the first instance. This application allows the administration of cases electronically, including the provision of case document forms that make it easier for both parties and judges and court officials.

The Supreme Court, as the highest executor of judicial power and overseeing four judicial bodies, in 2018 has implemented an electronic case administration policy. Initially, the embryo of this latest policy was the Case Investigation Information System (SIPP) which allowed case administration to be carried out electronically. Advanced policies such as e-court

and its four main features (e-filing, e-payment, e-summons, and e-litigation) and suplemented by electronic signature address the community's need for an efficient, effective, accessible, and affordable judicial administration.

In general, it can be said that, although it only started massively in 2018, the implementation of e-court which contains various important features has significantly been able to change the face of the Indonesian judiciary. From the beginning, our judiciary was too conventional, now it is leading to a court with a digital platform. This latest platform takes our judiciary several steps further and is expected to be in line with judicial institutions in other countries that have been bona fide, both in terms of systems and achievements.

Regarding the priority setting for the application of information technology in the context of the judiciary in Indonesia, we map out the following:

3.1 The application of technology in case administration

This application has been implemented in the last few years. SIADPA (which was initiated by the Religious Courts and has also been implemented in other judicial realm), SIPP, and e-court are a number of applications that have been implemented and have succeeded in reducing time and cost in the case administration process;



3.2 Application of technology in general administration

In general administration, systems for data collection, reporting, reconciliation of inventory and financial accounts, as well as administrative accountability have been well developed. It supports transparency and accountability in the management of assets and budgets of the judiciary.

3.3 Application of administration in the management of judicial services

Judicial services have been developed in such a way and produce quite a number of supporting applications. The Religious Courts, for example, have developed dozens, if not hundreds, of applications that encourage reform of judicial management in order to increase public trust in the judiciary. For example, case notification applications, online court queues, and other applications are held to make it easier for parties to access information and developments in handling cases via cell phones. Thus, for a certain amount of information, the

parties can obtain it without having to come directly to the court office.

We currently do not have ODS tools as has been implemented in several other countries. It is necessary to propose a working frame to implement ODS tools because it will greatly facilitate the mediation process in court. Accessibility in terms of time and cost makes ODS a very feasible tool to be implemented in the court case handling system.

3.4 Application of technology to assist judges in analyzing cases as a basis for deciding cases

One thing that might need to be considered to be applied in the future is the application of information technology as a medium to assist judges in analyzing cases accurately. In this context, artificial intelligence can be applied which is able to analyze large amounts of caserelated data which produces analytical descriptions for judges to determine what law will be applied to their case. The advantage of using AI here is its ability to analyze large amounts of data quickly and accurately. This analysis is not a judge's decision, but as a basis that the judge can trust to determine such a conclusion and determine the application of law.

3.5 Application of technology in the formulation of strategic policies

Technology is expected to be able to integrate large amounts of data to be presented in a complete and brief yet concise manner. Millions of data on decisions, research results, community satisfaction surveys, and more can be easily collected and analyzed using AI tools. From the analysis of this AI tool, the court has sufficient data to discuss the need of reform and establish strategic policies to make.

4. Conclusion

The explanations above show us that Courts and Technology, today, are two entities that can no longer be separated. On the other hand, today, technology has even become an inherent part of the judicial system. We can even say that the existence of the judiciary depends very much on the reliability of information technology. Therefore, the formulation of the latest policies in the judiciary, in the future, must always be directed at the massive and inclusive application of information technology. The use of technology for the judiciary must focus on three things, namely increasing public access to judicial institutions (accessibility), minimizing delays in handling cases, and realizing a clean governance of judicial institutions (free of corruption).

References

- A. S. Selvik, M. M. Edvardsen, O. Laedre, and J. Lohne, "Opportunity Space for Work-related Crime from Procurement to Production," *Procedia Comput. Sci.*, vol. 196, no. 2021, pp. 894–901, 2021, doi: 10.1016/j.procs.2021.12.090.
- [2] E. E. Supriyanto and J. Saputra, "Big Data and Artificial Intelligence in Policy Making : A Mini- Review Approach," *Int. J. Adv. Soc. Sci. Humanit.*, vol. 1, no. 2, pp. 58–65, 2022.
- [3] G. Mulgan, *Big Mind: How Colletive Inteligence Can Change Our World*. Princeton University, 2018.
- [4] E. Pamungkas, "Constitutional Court and Legal Certainty Covid-19 Pandemic Status," 2022, doi: 10.4108/eai.16-4-2022.2319712.

- [5] I. Nursaadah and Z. Fakrulloh, "Settlement of Divorce Lawsuit Due to Conversion is Reviewed from Religious Court Authority," 2021, doi: 10.4108/eai.6-3-2021.2306472.
- [6] F. Santiago, "Aspects of Legal Certainty, Justice and Usability in the Decisions of Judges in Civil Courts," *MIC 2021*, 2022, doi: 10.4108/eai.30-10-2021.2315815.
- [7] X. Tracol, "The joined cases of Dwyer, SpaceNet and VD and SR before the European Court of Justice: The judgments of the Grand Chamber about data retention continue falling on deaf ears in Member States," *Comput. Law Secur. Rev.*, vol. 48, p. 105773, 2023, doi: 10.1016/j.clsr.2022.105773.
- [8] M. G. Porcedda, "Sentencing data-driven cybercrime. How data crime with cascading effects is tackled by UK courts," *Comput. Law Secur. Rev.*, vol. 48, p. 105793, 2023, doi: 10.1016/j.clsr.2023.105793.
- [9] W. Li and Q. Peng, "Digital courts and corporate investment in sustainability: Evidence from China," *Int. Rev. Financ. Anal.*, vol. 88, no. 19, p. 102682, 2023, doi: 10.1016/j.irfa.2023.102682.
- [10] J. Collenette, K. Atkinson, and T. Bench-Capon, "Explainable AI tools for legal reasoning about cases: A study on the European Court of Human Rights," *Artif. Intell.*, vol. 317, no. November 2021, p. 103861, 2023, doi: 10.1016/j.artint.2023.103861.