E-Justice in Taiwan: The Derivative Inquiries from Constitutional Perspectives in the Digital Age

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1. Introduction

Digitalization is changing the world at a rapid pace. It seems that the legal system is inevitably caught into this unstoppable trend (such as e-government), with e-justice being hailed as the next leap forward we must have. On the other hand, the prevalence of the Covid-19 pandemic has accelerated the digitalization of justice for responding to public needs. The current research on e-justice focuses on improving the efficiency and effectiveness of the judicial system. However, it is crucial that e-justice cannot be implied without considering the rule of law. Efficiency is undoubtedly essential in maintaining the operation of the social system. Yet, the value of the rule of law should not be decoupled from the implementation of e-justice. For instance, to ensure people's equal access to justice, judicial transparency, independent judges, and effective remedies for their rights. Moreover, it should also include protecting fundamental human rights, such as privacy protection.

This paper is developed primarily to draw a larger picture of the digitalization of justice in Taiwan and will further discuss some relevant but critical issues of e-justice from a constitutional perspective in the digital age.

2. What is E-Justice?

E-justice refers to the use of technology aimed at improving access to justice, which differs from the digitization of administrative and legislative systems that needs to be addressed here. From the perspective of separation of power, the current e-government system in Taiwan mainly refers to the digitalization of administration. Besides, the digitization of legislation is also a progressing issue that has been considered. This article primarily focuses on e-justice, which is an idea that different from the former two and mainly focuses on the digitization of judicial and court systems. Although there are

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correlations between the digitization of the administrative, legislative and judicial systems, it is still necessary to address the differences between these concepts.

Furthermore, e-justice can be a concept involved with various relevant parties in terms of different scopes. In a narrow sense, e-justice can be the electronic system that involves legal communication not only between the courts and the administrative system but also between the courts and notaries, solicitors, lawyers, and citizens. This digital system supplements the previous paper-based process and submission of documents, fax, and computer fax, thereby facilitating external communication. In a broad sense, on the other hand, it also refers to the establishment of an e-portal that provides people with convenient access to legal information and documents[1].

Despite the differences between e-government, e-legislation and e-justice, the cooperation and integration between the three sectors should be regarded as significantly necessary. For instance, the platform/system of e-Delivery, e-CODEX[2], and e-SENS[3] has been built to provide information and relevant resource for judicial practice. Finally, although digitalization is a trend we are already familiar with, the more critical issue is applying artificial intelligence to judicial practice. For example, predicting judgments through algorithms or assisting judges in formulating judgments and judgment bases for sentencing are all relevant topics of e-justice.

3. Essential Structure of the E-Justice in Taiwan

Taiwan is not a federal state. According to the Constitution of the Republic China on Taiwan (hereafter referred to as the Taiwan Constitution), the Judicial Yuan is the highest judicial organization of the country, vested with the power of interpretation, adjudication, discipline, and judicial administration. In practice, the Judicial Yuan functions as a constitutional court rather than a court for administrative, civil and criminal litigation[4]. It only supervises the judicial administration affairs of the Supreme Court, the Supreme Administrative Court, the Disciplinary Court, and the other High Courts and the District Courts for administrative, civil and criminal litigation. Unlike federal states, which the federal and the state have their own courts, and thereby each court might have different policies concerning the same issue, all courts in Taiwan are at a national level and should comply with the policy launched by the Judicial Yuan as a whole; thus, the application of e-justice shall progress more smoothly than it does in federal states[5].

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1) Such as the European e-justice Portal, https://e-justice.europa.eu/?action=home&plang=en.

2) The abbreviation e-CODEX means: E-justice Communication via online Data Exchange.

3) The abbreviation e-SENS means Electronic Simple European Networked Services. E-SENS is a three-year major IT project initiated by the European Commission on April 1, 2013. Please see for more information: http://www.esens.eu/.

4) https://www.judicial.gov.tw/en/cp-1588-79757-f2513-2.html.

5) Federalism like Germany is a mixed or compound mode of government which could contribute a ↗

Announced by the Judicial Yuan in 2014, the policy of e-justice aims to enhance the transparency of legal process, increase the efficiency of legal system, allow resource sharing, and further cut down carbon emissions by reducing cumbersome paperwork used in court.

E-justice in Taiwan consists of two parts, i.e., e-litigation and e-administration. Whilst e-administration aims to digitalize the administrative work of courts and further enhance the efficiency, e-litigation concerns the core of judgment, and thus is crucial to e-judiciary. It can be further divided into the digitalization in equipment (technology court/e-court) and proceedings (e-procedure). The former focuses on the digitalization and the improvement of both software and hardware, which are mainly applied to court equipment and judges' personal equipment. The following is a brief introduction to e-court and e-procedure.

4. Technology Court/e-Court

Digitalization of court equipment focuses on hardware building, converting dossiers to electronic form, and further establishing a database of e-dossiers[6]. Therefore, a few online systems have been built, with Scan & Send being the first attempt and the basis of e-court. It encrypts all the e-dossiers from inside and outside the court, and sends them to the judgment system; the files are then automatically uploaded to the index of e-dossiers. On the basis of Scan & Send, the digitalization of judges' personal equipment is further developed; it emphasizes how e-dossiers could assist the judges to do case searching with just a few clicks. For instance, the system of Index & Display provides the judges and their assistants with a more straightforward way to search and document e-dossiers and e-files.

Based on Scan & Send and Index & Display, two advanced systems were set up for civil and criminal litigation, respectively. Regarding civil litigation, the system of Arguments of Civil Litigation presents the arguments from both sides in civil litigation in a simple way, helping the judges and their assistants to build any further documentation.

In the case of criminal litigation, the information system for imposing penalties was established by the Judicial Yuan in 2018, providing the judges with information on different crimes' corresponding penalties. It should be noted that the system is only for the purpose of reference, and the judges have discretionary power on this matter. However, not only the judges but also the prosecutors, attorneys and other people could access to this system, causing the judges to be subject to criticism easily, particularly when the judges impose more severe penalties than the system suggests. On the other hand, some judges are criticized for not using the system. To use or not to use, that is the question.

↘ rugged e-justice-Landscape, so-called "digital patchwork carpet" („digitaler Flickenteppich"). cf. David Jost/Johann Kempe, E-justice in Deutschland – Eine Bestandsaufnahme zur Digitalisierung der Justiz, NJW 2017, 2705 (2708).

6) Its main equipment includes HD projectors, opaque projectors, and digital signages.

5. E-Procedure: External Electronic Communication

5.1 E-filing

Whereas e-court focuses mostly on the digitalization of equipment and proceedings (e-filing), the other significant part of e-litigation concerns building various online platforms and systems, including e-filing, e-dossiers reading, and online check-in systems.

E-filing is a platform where litigants and their lawyers could launch litigation, exchange complaints, file appeals and interlocutory appeals, etc. Making an accusation is accepted both online and in hard copy; therefore, litigation via e-filing can be further subdivided into the following two types of systems: the symmetrical and the asymmetrical systems. The former occurs, as its name suggests, when both parties conduct the litigation online. The plaintiff's agent would use e-filing to make an accusation, and the defendant would answer the complaint via e-filing. Both parties and their agents could upload their complaints and documents after the court verifies the application.

On the other hand, the asymmetry litigation refers to the cases where the plaintiff launches the suit by using paper documents, and the defendant's agency (intellectual property office, ministry of economic affairs, taxation authorities) files the complaint via e-filing, the online platform built by the court. The plaintiff could apply for e-filing during the proceeding; that is, the plaintiff is allowed to change from the asymmetry litigation to the symmetry litigation.

Since 20 July 2015, the symmetry litigation via e-filing has been applicable to IP administration cases. The same access was granted to the administrative litigation relating to tax in September 2015, with the caveat that only the professional agents of the litigants could use the said platform. From 8 August 2016 onwards, all the civil cases could be launched via e-filing; that is, the public is able to sue, upload complaints, and appeal on 'e-filing of civil cases platform', which is of equal validity to filing suits in person.

The online system of the asymmetry litigation was introduced on 17 July 2017, which was only applied to the IP administration cases and administrative cases relating to tax at the beginning. Starting from 1 August 2018, both the litigants and their agents could use Citizen Digital Certificate to log in e-filing, further upload and receive the complaints. By the same token, the counterparty could use e-filing by logging in with their Citizen Digital Certificate.

Apart from the IP administrative, tax administrative, and civil litigation administration cases, the e-filing platform has been applicable for civil enforcement cases (since 29 August 2019), business cases (since 1 July 2021), constitutional litigation cases (since 4 January 2022), and general administrative litigation cases as well (On 21 January 2022, general administrative litigation cases under the jurisdiction of the Supreme Administrative Court and the High Administrative Court has been included. It is expected that the general

administrative litigation cases under the jurisdiction of the Administrative Division of the District Court will also be applicable since 3 May 2022).

5.2 Reading E-Evidence Dossiers

The system of reading e-evidence dossiers encompasses the scanned evidence dossiers of civil, criminal and administrative cases. It enables the litigants and the lawyers to apply for and copy the e-evidence dossiers. Regarding the procedures, the litigants and the lawyers are required to download the invoice first and pay for it; after the payment, the court will send the required e-evidence dossiers through DVD. The payment is charged in accordance with 'Standards for The Fees for Copying e-evidence of Civil and Administrative Litigation' and 'Fees for Copying e-evidence of Juvenile Litigation in Criminal Cases'. The former is ruled by Paragraph 1, Article 77-23 of the Taiwan Code of Civil Procedure and Paragraph 1, Article 98-6 of the Administrative Litigation Law, and the latter by Article 10 of the Charges and Fees Act.

Since 2017, the system of online reading evidence dossiers integrates the online systems of judgment, statement, and litigation, providing the litigants and their agents the service of browsing and downloading the complaints, statements and evidence dossiers. In order to encourage the public to use the system, open access is provided for everyone to browse and download the documents. The user will not be charged for the payment for transcribing, copying, or printing, delivering the evidence dossiers, nor will he/she be charged for downloading the statement via e-statement system.

However, even in the case where the party applies for online reading evidence dossiers, it is still necessary to bring a USB flash drive to the court for copying the digital files, or ask the court to send the CD with additional fees. Therefore, the Judicial Yuan added the "online delivery service" on 6 January 2021, which allows people to download and use digitalized evidence dossiers online directly, thereby economizing the expense and saving effort for picking up or waiting for the evidence dossiers.

5.3 Online Check-in System

The Online Check-in System enables the litigants and the relevant parties to check in by scanning the QR code printed on the notice or subpoena sent by the court at the check-in machine. If the parties' ID numbers have been uploaded to the system, the said parties could check in by simply scanning the barcodes on their ID cards. The progress of the trial will also be provided to the parties after their check-in. The Taiwan High Court and Taiwan Taipei District Court have been doing the trial run of the online check-in system since 28 December 2020. Some District Courts (e.g. Keelung, Yunlin, Tainan, etc.) have subsequently launched Online check-in systems as well.

5.4 Impact from Covid-19

On 15 May 2021, The Central Epidemic Command Center of Taiwan declared a Level 3 warning for the Covid-19 epidemic for Taipei City and New Taipei City. Four days later, the restriction was expanded to the whole country. In response to the severe epidemic, the Judicial Yuan urgently proposed the "Epidemic Prevention for Courts under Level 3 Restriction Guideline", which announced that the hearings should be postponed for courts at all levels in principle. Regarding particular cases with necessary urgency (such as evidence preservation cases) and timeliness (detention cases), the remote hearing can be considered when facilities and regulation requirements are met. On the other hand. if the relevant equipment for conducting a remote proceeding is approachable for the parties and relevant parties, and whose legal rights can be ensured in the process as well, the remote hearing can also be held. On 4 June 2021, the Judicial Yuan introduced the "Remote Video Hearings Operation Manual 1.0", which lists the critical issues for conducting remote proceedings. The judges must confirm the willingness and accessibility of appropriate equipment of the parties before remote hearing, and must confirm that their physical and mental state, language ability, and information accessibility can effectively support them to participant in the remote proceedings.

For the cases of civil litigation, family, commercial, and administrative litigation, the current regulations have provided regulations that parties and relevant parties can access the court via remote technology equipment. However, in criminal cases and juvenile cases, it is considered that the adoption of remote hearing may cause certain procedural effects on the defendant's right to appear in court, the right to rely on defense, and the right to cross-examination. Therefore, it has not been fully implemented in practice. Only in paragraph 2, Article 177 of the Criminal Procedure Code, is there a regulation for the remote examination of witnesses. Considering it is indispensable to maintain an effective operation of the judiciary system during the Covid-19 pandemic, the Judicial Yuan added subparagraph 6, rule 3 and rule 5 to existed "Extensive Regulations of remote interrogation for criminal cases", which further approved the preparatory procedures for criminal cases and juvenile cases. Through urgently approving and implying the regulation, the preparation procedures, trial procedures (except for the defendant), and compulsory punishment procedures (such as a petition for custody) for criminal and juvenile cases can therefore be held through remote interrogation.

On 18 June 2021, the Legislative Yuan passed the "Special Act on Judicial Procedures During the Severe Epidemic of Infectious Diseases", which added the option of remote court for criminal proceedings and juvenile incidents in Article 4. Meanwhile, it has been emphasized in the Article 4 that the remote hearing can only be held under the following conditions: the consent of the defendant is obtained, the opinions of other parties and parties involved in the litigation must be consulted, and the fully communication between defendants and the defense attorney must be ensure. There is also revision of documents

transmitting regulations. Except for judgments, criminal procedure documents (such as a summons for detention) can also be transmitted through ICT equipment (Paragraph 1 and 6, Article5). The court can decide to suspend the trial if it considers that there are significant difficulties in continuing the procedure, after considering the circumstances of the case, preliminary measures, or consulting the parties and other relevant persons (Article7, 10 and 12).

5.5 E-Justice on paper?

Since the Judicial Yuan began using e-justice in Taiwan, all courts have been gradually upgraded their soft- and hardware facilities, e.g., electronic trial transcripts, computer updates, and the establishment of electronic databases. In addition, electronic documents have also been introduced, so that all paper materials in court can be converted into digital documents.

In court practice, however, the transcripts of judgements are usually kept in printed form. The prosecution, evidence and court communications are usually in hard copy, while some will be transmitted electronically. Although the judgments made by the courts are made into electronic versions on computers, they must still be sent to the parties on paper. Therefore, even though the Judicial Yuan vigorously promotes e-justice, introducing a digitized process does not necessarily lead to an entirely paperless practice.

6. Some Jurisprudential Aspects about the E-Justice

The digitalization of justice can increase the efficacy and efficiency of the legal system and facilitate access to judicial processes. Access to justice could be improved by implementing concrete technological tools such as electronic filing, electronic case-management systems as well as the management of a paperless system, and finally, technological courtroom management, which includes the use of videoconferencing for remote testimony. Using information and communications technologies (ICT) will also change the understanding of how the judges are carrying out their task. However, the efficacy-oriented approaches need to take into account that justice systems in a democratic constitutional state should support judicial values, such as equal access, transparency, respect of human rights, and judicial independence etc. On this basis, here it is just as important to indicate some rule of law aspects about the e-justice.

6.1 Constitutional Requirement of the Specific Enactment of a Statute?

From the perspective of the rule of law, e-justice prompts a few critical questions, and the basic, but probably the most important one, is whether it should be applied with a legal basis. The litigation via e-filing was firstly applicable to administration cases, with no relevant regulations stipulated in the Administrative Litigation Act before the revision in

2021. At first, the paragraph 3, Article 116 and Article 153-1 of the Taiwan Code of Civil Procedure had to be applied mutatis mutandis through Articles 59 and 83 of the Administrative Litigation Law before the relevant pleadings and litigation documents could be transmitted through technological devices. After the revision had been made, the Administrative Litigation Law was amended to promulgate on 16 June 2021 the provisions of Articles 57, 59, 83, 210, and 237-15, which are the regulation related to litigation digitalization. Together with the "Regulations on the Use of Technological Devices for the Transmission of Administrative Litigation Documents", the revised Administrative Litigation Act enables parties to use e-filling platforms to transmit pleadings; meanwhile, to send the original copy of adjudication in electronic documents for the first time. The relevant revision has been taken effect since 1 November 2021; therefore, the legal basis of e-filing of administrative litigation cases can be found. However, the same confidence cannot be said to e-court. Most of the current rules on e-court, the systems of information of imposing penalty, and reading e-dossiers are the directions of the Judicial Yuan, never approved and verified by the Legislative Yuan. Then it begs a significant question here – does e-court need a legal basis?

6.2 Effective legal remedies and principle of open trial

The main purpose of e-justice is to improve and facilitate the accessibility of justice through digitalization. E-justice should, for instance, be user-oriented and accordingly offer technical options that are designed to be user-friendly. From the standpoint of effective legal remedies, however, it must also be ensured that the options have been kept for the citizens. People should have the chance to decide what measures they want to communicate with the courts, consequently avoiding the problem of substantial inequality caused by the digital gap. In addition, the high speed of document and data transmission does not necessarily mean greater effectiveness of legal remedy. For people who have been very used to dealing with traditional paper-based documents, adopting electronic documents would represent a barrier to their legal remedies. It is therefore questionable if the future development of e-justice requires people to file lawsuits only through electronic means, it may conflict with the principle of effective rights remedy[7].

In terms of the remote trial, it will involve the "open trial principle", which has been emphasized both in the basic principles of the judiciary as well as the basic principles of the constitution. The principle of open trial refers to the principle that the court's trial activities should be conducted in public, not only to ensure the fairness of the trial but also to meet the requirement that the judiciary should be subject to public supervision. From the

7) In Germany, the Electronic Legal Transaction Act stipulates for all branches of the court that from January 1, 2026, newly created case files will only be kept electronically. Insofar as this is only aimed at the court, i.e. participants and third parties are not bound by the form in which the court keeps its files, in my opinion it is still in line with the constitutional requirement of the right to be heard.

perspective of procedural economy or based on the consideration of epidemic prevention, it is indeed necessary to open online hearings and conduct trial activities with remote video technology equipment. However, if the online hearing only allows the litigants or related parties to participate and does not allow other unspecified numbers of people to join; or although the regulations allow the unspecified majority of people to join, it is still difficult to achieve in practice. Either way, it may violate the principle of open trial. Considering the procedural economy, the remote hearing should still be supported and be conducted as openly as possible, especially under certain circumstances such as the Covid-19 pandemic. However, conducting remote proceedings, especially when they are not subject to public scrutiny, should be made conditional on the consent of the parties, and it should be ensured that all participants have access to the online proceedings.

6.3 Judicial Independence and E-Justice

The national authority responsible for the judicial system must ensure that the judges are well equipped so that they can perform their tasks in accordance with the principle of judicial independence. It is evident that digitalization will make a noticeable impact on judges and their responsibility. Whereas the electronic file system changes the way and the mode of judicial proceedings substantially, it further prompts the question of the compatibility of judicial independence and e-justice.

While e-justice has been developing rapidly, it poses numeral problems in terms of judicial independence. Judicial independence prohibits any direct, indirect, subtle, and psychological interference from administration in the legal status of judges, but the use of ICT may influence the judicial independence unnoticedly. For instance, could the judge argue that judicial independence is harmed because he/she is denied to use certain ICT? Or, on the contrary, is it a disservice to judicial independence if the judge is forced to use ICT, electronic data-processing (EDP) network or any electronic monitoring but later refuses to do so in fear of the leak of confidential information?

Relative issues: Exists a violation of independence of the judiciary, if - to mention just a few -

- judges were refused by his administrative supervision to access to an electronic databank[8)]?
- Justice functions in computerized form of electronic data-processing (EDP) network, because of electronic monitoring works of judges[9)]?

Regarding regulating digital measures in judiciary, the use of information technology

8) Please see cf. BGH, DRiZ 2011, 66 ff. for a judicial practice made by the Federal Court of Justice in Germany, which might serve as a reference for the readers.

9) Another judicial practice made by the German Federal Constitutional Court can be found in cf. BVerfG, NJW 2013, 2102, which may also provide relevant information here.

system by public authorities should be embodied in the Constitution as Art. 91c par. 1, 2 GG (German Basic Law) demonstrates. Provided that such measures have positive effect on jurisdiction, but no influence on judicial independence, they shall be advocated. That is, so long as e-files function as an ancillary instrument or a support for the judicial activities, without any content-related effects provided, they can be brought into harmony with judicial independence. In contrast, in the case of judicial procedures to which the e-files apply, the safeguarding of judicial independence must be paid with special heed. It is also worth comparing it with e-government, in which the public authorities used ICT is no longer a mere formality, but an activity of substantial content.

Both e-court and e-filing belong to judicial administration, and do not bear on the core of judgment; however, they concern significantly with the infrastructure of the organisational power of courts. In contrast to the judiciary, the court system bears the responsibility to supply litigants, judges and staff with a satisfying, safe, and proper working environment, which is a basic but indispensable element for fulfilling the judicial functions. It is out of the question that the introduction of electronic file systems entails a series of advantages. For instance, the electronic table of contents and full-text search function speed up the process of searching and improve effectiveness. However, it is also important not to lose sight of the risks hiding behind the electronic file system such as hacker attacks[10] and the lack of ICT security. It is definitely not beyond our imaginary realm how disastrous it would be if the whole e-litigation system crashes. The incidences such as the risks posed by malicious software demonstrate that the justice system and ICT combination is not stronger than the justice system before, and if any, is more vulnerable. This also raises the awareness of the risk created by human to IT security. That is, the knock-on effects caused by human errors in IT security should always be taken in to account.

Even in the age of digitalization, the principle of judicial independence must be safeguarded. The organizational power of judicial administration must be limited and regularly checked to preserve judicial independence.

ICT should be harmless and be developed carefully so it can promote the judicial efficiency but at the same time inflict no disservice on the judges' decision-making. Because the use of ICT could influence and further bend judicial independence, we should keep our eyes on how the system develops. The constitutional system we have today could easily be taken away once the system is abused and further harm judicial independence. To prevent the risk as such, it is suggested that the training of using the application of ICT should be provided to the judges and the court staff, and it is further recommended that all those working for the justice and the administration of justice should be indoctrinated to raise the awareness of any insertion of undetected private USB-sticks in the hardware of courts and

10) On 17 March 2018, 29 courts, including the Taipei District Court, 243 computers were invaded by hackers and implanted with viruses. It was suspected that the logging information of employees had been illegally accessed by hackers.

the use of unshielded private PCs. In view of the dynamic development of ICT, it should be noted that the use of ICT infrastructure must remain at an appropriate standard and the security measures for using ICT must keep up with the any current and potential threats.

The above disputes further lead to the following question: "can a judge raise administrative or even constitutional litigation as the judicial remedy, if he/she claims that his/her independent status in adjudication/judicial independence has been infringed?" In Germany, a judge can raise the litigation before the Disciplinary Chamber of the Judiciary to decide whether a specific action on supervision of duties infringes his/her independent status; otherwise, such litigation would be inadmissible, if the Disciplinary Chamber finds no specific action in the case. However, based on the previous decisions of the German Federal Constitutional Court[11], an individual judge is allowed to petition directly to the Constitutional Court in accordance with paragraph 5, Article 33 of the Basic Law, which guarantees judges independent status. It is worth noting that the Court still has the discretionary power to review whether such cases are of constitutional importance.

However, is there the same possibility for judicial remedies in Taiwan? Judicial Yuan Interpretation (J.Y.I) No. 539 in 2002[12] may give us some clues that show the path for finding possible answers to the above inquiry. Based on the administrative rules promulgated by the Judicial Yuan, judges who were initially assumed as the office of a division's leading judge shall be removed from their administrative duties. Administrative litigation had been once initiated by the judges who were removed from the office for the dispute regarding the above rules, yet lost. The case was loaded as a petition to the Constitutional Court afterwards, claiming the administrative rules actually violate the Constitution. The core concern of this article lies in the procedural significance of the J.Y.I No.539, and the issue of ruling on the merits of this interpretation will not be addressed in the discussion of this paper. That is to say, even though the Grand Justices of the Constitutional Court did not clearly indicate the judge's legal status with respect to judicial independence, the procedural acceptance of the Grand Justices of the case and their substantive explanation may have implied the possibility for the legal remedy for the judges.

6.4 Robot-Judges?

The official decisions made by automatic setup without human involvement, such as administrative acts in Germany, is no longer a fantasy but a fact already;[13] however, the so-called robot-judges are not even in the most remote sense a judge defined in the

11) BVerfGE 12, 81 (87); BVerfG, NJW 1996, 2149 (2150).

12) For detailed information and full content of the J.Y.I No.539 (English version), please visit this URL: https://cons.judicial.gov.tw/en/docdata.aspx?fid=100&id=310720.

13) In Germany § 35a Administrative Procedure Act stipulate that an administrative act can be issued completely by means of automatic facilities, if this is allowed by regulation and neither there is a discretion nor a margin of judgement.

Constitution, for the provisions of judges in the Constitutional are designed for human judges and the requirements of due process (judicial due process) of the majority of the cases, in particular those significant ones, require the judges to physically present in court;[14] that is, robots-judges could not possibly meet the requirement as such for being judges as the Constitution lays out.

The Citizen Judge Act (CJA)[15] was announced on 12 August 2020 and will come to force on 1 January 2023, which aims to enable the general public outside the legal profession to participate in trials, thereby improving judicial transparency and facilitating dialogue between the legal and non-legal professionals. According to the Article 12 of CJA, a citizen judge should be: "who is over twenty-three years old and has resided in an area within the jurisdiction of the District Court for at least four consecutive months shall be eligible for being appointed as a citizen judge or an alternate citizen judge." It is evident, based on Article 12 of CJA, that only natural persons are qualified to serve as citizen judges. Therefore, whether robot-judges can serve judges is not only a technical issue but also an institutional issue. It also involves the requirement of the "Principle of Statutory Reservation". Therefore, in the future, the relevant system of robot-judges cannot be unilaterally implemented by the Judicial Yuan but must return to the legal basis to regulate the positioning of robot-judges and address the issue of the validity of the judgments made by robot-judges.

That being said, it is foreseeable that the ICT system could play a more important role in assisting the judges' decision-making. However, considering the deep trust we have in the supposedly-infallible the ICT system, this paper is more concerned with judicial independence because of the judges' growing dependence on the ICT system, which might finally lead to ICT system's full takeover of human judges' job; that is, to judge and to achieve the justice. As mentioned, the ICT we use at this moment merely act as an ancillary tool, rather than a must-applied system, but with the judges' increasing reliance on it, we should be aware that, one day, the judges might let the ICT system do all the work, and simply sign on the decision and the judgment afterwards without a second thought due to the overloaded cases.

7. Conclusion: Humanity in the digital age

"The same technology that simplifies life by providing more functions in each device also complicates life by making the device harder to learn, harder to use" is how usability engineering expert Donald Norman describes the paradox of technology[16], which should not

14) There are, indeed, certain types of cases do not require the physical presence of the judge during the court session; most of them concern minor issues.

15) For more information please see: https://www.judicial.gov.tw/en/cp-1601-157742-8acb3-2.html.

16) Donald A. Norman, The Design of Everyday Things (1988), 1998, First MIT Press ed., p. 31.

be used as an excuse for poor design. This way of thinking inspires the idea that the technology development should conform to humans' understanding of the world, not the other way around, which should also apply to e-justice, whose exitance is to fulfill the public will.

The principle that all people are equal before the law is particularly important for the judiciary, which presupposes an image of human that everyone has the capacity to think rationally, both the judge and all other parties involved. Due to the fact that such images of humanity could involve in the process of digital transformation, it should be a concern for all those activities in the judiciary that adverse effects on adequate legal protection and judicial independence are avoided in the digitalization process.

It can therefore be concluded that it must be clear in all respects, to some extent, effective mechanisms should be introduced, especially with a view to protecting judicial independence and the effectiveness of the judiciary. All judges should avoid decision-making that relies solely on ICT systems and protect the draft of any judgement (the judge's initial thoughts) from any undue interference. The more automated decision-making increases, the more important human judges are.

It is evident that much clarification needs to be made concerning to what extent effective mechanisms should be established, especially when the standard of professional ethics of judges concerns judicial independence greatly. The judges should avoid making decision by merely relying on ICT system, and further protect the drafts of decisions from any unauthorized access. The more automatic decision-making has been made, the more essential the human judges are.