

THE USE OF TECHNOLOGY BY COURTS IN MAINLAND CHINA, HONG KONG, AND MACAU: INCREASING EFFICIENCY IN DISPUTE RESOLUTION IN THE GREATER BAY AREA

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Abstract:

Incorporating technology in legal proceedings has become increasingly important, given the pressures on judicial resources brought by increased litigiousness. The use of technology in court systems has several advantages, including reducing costs and improving judicial efficiency. Mainland China, Hong Kong, and Macau have implemented laws related to court technology to expedite proceedings, which can improve cross-border dispute resolution and, consequently, the progress of the Greater Bay Area project. However, different legal approaches and levels of investment in technology in these three regions have complicated the use of technology in resolving disputes. To address this challenge and create an efficient system for dispute resolution, it is necessary to comprehensively understand the current laws governing technology use in court proceedings across the three regions. Given the differences in the approaches in these three jurisdictions, promoting cross-regional learning opportunities may facilitate mutual learning from the successful implementation of technology-related laws in each jurisdiction. By collaborating, the three regions can identify areas for improvement and work towards revising their legal frameworks to achieve a more harmonised legal environment.

Keywords: Greater Bay Area; Court litigation; Dispute resolution; e-Courts; Online filings; Online hearings; Legal Technology.

I. INTRODUCTION

The Guangdong–Hong Kong–Macau Greater Bay Area project integrates one country, two systems, and three jurisdictions. Its goal is to connect a population of 70 million, thereby creating a leading global economic area.¹ To make this project a reality, it is, however, necessary to undertake significant investments in linking and updating the legal systems of these three regions because of the substantial economic and legal differences between Hong Kong, Macau,

¹ Kerry Liu, *China's Guangdong–Hong Kong–Macao Greater Bay Area: A Primer*, 37 COPENHAGEN. J. ASIAN STUD. 36, 40 (2020).

and Mainland China.² In this context, dispute resolution has been identified as one of the key legal issues to be addressed in the Greater Bay Area project.³

With the Greater Bay Area experiencing economic integration and an influx of people crossing its borders,⁴ there has been a rise in civil disputes with cross-border elements.⁵ Nevertheless, the local courts have been unable to handle these disputes effectively, which has led to a need for improvement in dispute resolution.⁶ The COVID-19 pandemic worsened the situation, causing many proceedings to be postponed or delayed and revealing a need to explore the possibilities of remote proceedings in the three regions.⁷

The Greater Bay Area's courts can use new technologies, such as online filing and video communication, to increase their efficiency.⁸ However, the emergence of these technologies also raised some controversy. Some have warned that conducting them online might diminish judgements' solemnity.⁹ Others have warned that a lack of direct face-to-face communication could

² The Greater Bay Area project aims to integrate 13 cities in the Guangdong-Hong Kong-Macau region into a high-tech hub for economic growth in various industries. The project involves infrastructure investments, including transportation links and new urban areas. It is a crucial element in China's plan for economic growth and has the potential to transform the region into a global economic powerhouse. See Hong Yu, *The Guangdong-Hong Kong-Macau Greater Bay Area in the Making: Development Plan and Challenges*, 34 C.A.M.B. REV. INT. AFF. 481, 484 (2019); see also Jialu Shi et al., *Evaluation and Influencing Factors of Network Resilience in Guangdong-Hong Kong-Macao Greater Bay Area: A Structural Perspective*, 14 SUSTAINABILITY 1, 2 (2022).

³ Rostam J. Neuwirth & Zhijie Chen, *The Guangdong-Hong Kong-Macao Greater Bay Area: Cultural Heritage Laws as a Bridge between Past and Future*, 50 HONG KONG LAW J. 743, 749 (2020).

⁴ According to the Statistics on Daily Passenger Traffic made by Hong Kong Immigration Department, from January 24, 2020, to January 20, 2024, the daily number of mainland residents visiting Hong Kong increased from 21,268 to 89,174. The daily number of Hong Kong residents visiting Shenzhen increased from 163,222 to 286,960. (Based on the port visitation figures from Hong Kong to Shenzhen.) See Statistics on Daily Passenger Traffic (2024), <https://www.immd.gov.hk/eng/facts/passenger-statistics-menu.html>.

⁵ The data released by the Supreme People's Court for the judicial adjudication work from January to September 2023 shows that the first-instance courts across the country concluded 24,000 foreign-related commercial cases involving Hong Kong, Macau, and Taiwan, representing a year-on-year growth of 15.87%, see Dongli Huang, *Supreme Court Publishes Key Data on Judicial Trial Work in January-September 2023*, Information Department of The Supreme People's Court (October 23, 2023), <https://www.chinacourt.org/article/detail/2023/10/id/7592130.shtml>.

⁶ Jinde Zhang & Benfeng Yue (张进德, 岳本凤), *Yiqing Fangkong Beijing Xia Zhongguo Zaixian Susong de Fazhang Yu Tiaozhan* (疫情防控背景下中国在线诉讼的发展与挑战) [*Development and Challenges of Online Litigation in China in the Context of Epidemic Prevention and Control*], 9 ZHONGGUO YINGJI GUANLI KEXUE (中国应急管理科学) [JOURNAL OF CHINA EMERGENCY MANAGEMENT SCIENCE] 107, 109-110 (2021).

⁷ *Id.*

⁸ Marco Velicogna, *Cross-border Dispute Resolution in Europe: Looking for a New "Normal"*, 12 ONATI SOCIO-LEG. SER. 556, 573 (2022).

⁹ In the Scotland Civil Justice Conference, Lord Pentland emphasized the significance of the court as a physical space, stating: The court as a physical place supports the public's acceptance of the legitimacy and authority of the court, and the law itself. See *Report on the Civil Justice Conference of 10 May 2021*, Judicial Institution for Scotland (June 18, 2021), https://www.scotcourts.gov.uk/docs/default-source/aboutscs/civil-justice-conference-may-2021/report-on-the-civil-justice-conference-of-10-may-2021.pdf?sfvrsn=37a6aa95_2

increase the risk of misunderstandings and complicate settlements.¹⁰ Despite these controversies, Mainland China, Hong Kong, and Macau have all taken steps in the last few years to introduce the use of online technologies in their proceedings. However, most of these interventions have been piecemeal, and the dispute resolution systems of these three regions have not been fully reformed. More holistic consideration of how these technologies should be implemented is therefore needed.¹¹

This article, which reviews the use of new information technologies by the Greater Bay Area courts, begins by noting that much of the literature on the use of technology by courts argues that new technologies can be crucial to increasing efficiency in litigation proceedings. It subsequently addresses the current status of the use of technology by the courts in the three regions, demonstrating how, despite spectacular advances in the last few years, much remains to be done in these fields. Finally, this article addresses several keys to continued improvement, including further legislation in this area, benchmarking of best practices, and investments in the training of courts and counsel.

II. THE CASE FOR INCREASED USE OF TECHNOLOGY BY COURTS

The use of information technologies in courts has been a subject of increasing attention from legal scholars and commentators. This attention has generally been accompanied by enthusiasm regarding the potential of new technologies to provide faster, cheaper, and more inclusive proceedings. As a US commentator noted, the general perception is that while the introduction of online dispute resolution mechanisms may often be expensive, the benefits of these technologies easily outweigh their initial costs:

Public bodies also benefit from ODR because it is more efficient than traditional judicial proceedings. The initial start-up costs often appear daunting but are easily eclipsed by later savings in terms of time and money.¹²

However, it is important to note that the use of technologies by courts may refer to a set of very different technological architectures throughout the operation of court proceedings.¹³ A specific number of steps within judicial proceedings tend to be particularly suited to be moved online, namely, the submission of legal briefs and documentation, the conduct of hearings, and, more

¹⁰ Hao Li & Qingyu Wang (李浩, 王庆宇), *Minshi Zaixian Zuozheng de Xianzhuang Ji Wanshan* (民事在线作证的现状及完善) [*The Current Status and Improvement of Civil Online Testimony*], 6 *Xuehai* (学海) [ACADEMIA BIMESTRIS] 161, 162-165 (2023).

¹¹ Xueping Zou & Zehua Feng, *Guangdong's Practical Innovation and Historical Mission in the Legal Cooperation among Guangdong, Hong Kong and Macau in the 40 Years of Reform and Opening Up*, 5 *LAW-BASED SOC.* 6, 12 (2018) (in Chinese).

¹² Amy J. Schmitz, *Expanding Access to Remedies through E-Court Initiatives*, 67 *BUFF. L. REV.* 89, 93 (2019).

¹³ James Allsop, *Technology and the Future of the Courts*, 16 *UNIV. QLD. LAW J.* 32 (2019).

broadly, communication between the court, counsel, witnesses, parties, and experts.¹⁴

Online case filing offers clear benefits for parties and their counsel, especially in cross-border litigation, by reducing the costs associated with traditional methods of submitting court documents and paying fees.¹⁵ Additionally, an online filing system simplifies the court process by reducing the number of interactions between court personnel and parties while also facilitating the verification of information and payment of court fees.¹⁶ To facilitate submission, electronic conversion of paper documents securely stores and makes them easily accessible.¹⁷ This is particularly advantageous in proceedings involving large numbers of documents, allowing the court, parties, and counsel to access and organise documentary evidence more easily.¹⁸

Finally, in the hearing phase, new technologies have the potential to transform the traditional court experience, allowing parties, counsel, witnesses, and experts to join in courtroom activities – sometimes simply using smartphones.¹⁹ By allowing these actors to participate in court proceedings without having to go to court, these mechanisms not only avoid unnecessary litigation but also increase the participation of all those actors relevant to the proceedings, particularly participants in jurisdictions other than that of the court.²⁰

These potential advantages in the use of technology have spurred Mainland China, Hong Kong, and Macau to invest heavily in court technology. Mainland China, in particular, has been at the forefront of incorporating new technologies that allow electronic filing systems and online hearings in their proceedings, which, in turn, have helped streamline legal processes and improve access to justice. These technological advancements have been particularly useful in addressing some of the difficulties arising from China's vast geography and population. As noted in a recent article, China has been quick to leverage the advantages of these technologies:

As with some other jurisdictions, China has embraced newer technologies and has endeavoured to employ technological advances in the court system in

¹⁴ Michael Legg, *The COVID-19 Pandemic, the Courts and Online Hearings: Maintaining Open Justice, Procedural Fairness and Impartiality*, 49 FED. LAW REV. 161, 168 (2021).

¹⁵ Agnes Actie, *The Role of Technology and E-Filing: The ECSC Experience*, 36 COMMON. LAW BULL. 511, 515 (2010).

¹⁶ J. J. Prescott, *Improving Access to Justice in State Courts with Platform Technology*, 70 VAND. L. REV. 1993, 2009–2012 (2017).

¹⁷ Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings during the COVID-19 Pandemic and Beyond*, 115 NW. U. L. REV. 1875, 1894–1896 (2021).

¹⁸ Alicia L. Bannon & Douglas Keith, *Remote Court: Principles for Virtual Proceedings during the COVID-19 Pandemic and Beyond*, 115 NW. U. L. REV. 1875, 1894–1896 (2021).

¹⁹ Anne Wallace, *Virtual Justice in the Bush: The Use of Court Technology in Remote and Regional Australia*, 19 J. LAW INF. SCI. 1, 5 (2008).

²⁰ Elena Alina Onțanu, *Adapting Justice to Technology and Technology to Justice: A Coevolution Process to e-Justice in Cross-Border Litigation*, 8 EUROPEAN QUARTERLY OF POLITICAL ARRIRUDES AND MENTALITIES 54, 59–60 (2019), see also João Ilhão Moreira & Liwen Zhang, *Assessing Credibility in Online Arbitration Hearings: Determining Facts and Justice by Zoom*, INT. J. SEMIOT. L. 1, 3 (2023).

response to some of [the] challenges presented by what has been termed the ‘information era’. Arguably, however, China has recently progressed more quickly than other jurisdictions and this progression is partly related to the overarching framework adopted in the justice system [...]. There are clearly many reasons why China has focused on the introduction of technology in courts and the primary motivation appears to be related to promoting greater access to justice and to support ‘just’ outcomes for those with legal issues.²¹

Although, by comparison, as will be seen below, the development of technology in Hong Kong and Macau courts has been less transformative, the last few years have shown significant developments in the two special administrative regions (SARs). Overall, the use of technology in the courts of Mainland China, Hong Kong, and Macau has become an integral component of the legal system. Nevertheless, each region has its own distinct set of regulations and laws governing technology use in courts, offering different approaches to integrating technology in civil and commercial proceedings.

III. MAINLAND CHINA’S APPROACH TO THE INTEGRATION OF ONLINE ELEMENTS INTO CIVIL PROCEEDINGS

In 2007, the Chinese government implemented a policy to reduce court fees, leading to a rapid increase in the number of judicial procedures and placing enormous pressure on judicial resources.²² Additionally, on 1 May 2015, the People’s Court of China implemented a case filing reform, changing from a case review system to a case registration system, simplifying the process while saving time in filing cases.²³ This further augmented the number of cases filed in courts across the country, triggering an explosion of litigation. Even though the courts have taken various measures (e.g., increasing staffing levels,

²¹ Changqing Shi et al., *The Smart Court—A New Pathway to Justice in China?*, 12 INT. J. COURT. ADM. 1, 2 (2021).

²² A reform implemented in May 2007 resulted in a 70% reduction in litigation fees in Mainland China. This decrease led to a surge in disputes being brought to the courts, resulting in an increase in the number of cases. In 2008, the local courts at all levels received 31,567,000 cases, a 12.7% increase from the previous year. See Junsheng Wang, *Report on the Work of the Supreme People’s Court*, Supreme People’s Court (March 17, 2009), http://www.gov.cn/test/2009-03/17/content_1261386.htm. Additionally, Zhou Jiahai, Director of the Research Office of the Supreme People’s Court, mentioned during a series of all-media live interviews interpreting the 2024 Supreme People’s Court Work Report, ‘The number of cases accepted by courts nationwide has surpassed 40 million for the first time, with the average number of cases handled per judge reaching 357 annually. This means that even if judges across the country work tirelessly throughout the year, each judge would have to resolve nearly one case per day on average.’ See People’s Court News and Media Agency, *Responding to the Era’s Proposition of Not Becoming a “Litigation Major-Country”, This Interview Delves Deep And Thoroughly Into The Subject* (March 10, 2024), <https://www.chinacourt.org/article/detail/2024/03/id/7839077.shtml>.

²³ Zuigao Renmin Fayuan Guanyu Yinfa Guanyu Zuigao Renmin Fayuan Tuixing Lian Dengjizhi Gaige de Yijian de Tongzhi (最高人民法院关于印发《关于人民法院推行立案登记制改革的意见》的通知) [Notice of the Supreme People’s Court on Issuing the Opinions on Promoting the Reform of the Registration System for Case Docket by the People’s Courts] (promulgated by Sup. People’s Ct. Apr. 25, 2015, effective May 1, 2015) (Chinalawinfo).

strengthening trial management, and transferring trials) to alleviate the pressure of litigation, they are still facing significant pressure to adjudicate cases.²⁴

To address these issues, Chinese courts have increasingly turned to technological solutions, using various approaches and platforms to facilitate the conduction of proceedings. As early as 2006, a court in the Fujian Province conducted the first-ever online court hearing using the QQ messaging app.²⁵ Since then, many courts have implemented online platforms for legal proceedings, improving access to justice for judges, lawyers, witnesses, and other individuals who may face difficulties attending court.²⁶

For a long time, no laws or judicial interpretation acknowledged the validity of using online platforms in court proceedings.²⁷ This changed in 2015, when the Supreme People's Court issued the 'Interpretation of the Supreme People's Court on the Application of the Civil Procedure Law of the PRC', giving online court hearings legal recognition in China.²⁸ This was a major step towards the acceptance of online technology in legal proceedings in the country.²⁹ In the years since, China's legal system has seen a significant increase in the use of technology, driven by various national strategies.³⁰ These have included novel

²⁴ Zuo Weimin (左卫民), *Susong Baozha de Zhongguo Yingdui: Jiyu Wqu Fayuan Jin Sanshinian de Shizheng Fenxi* ("诉讼爆炸"的中国应对: 基于W区法院近三十年审判实践的实证分析) [*China's Response to the "Litigation Explosion": An Empirical Analysis Based on Nearly Thirty Years of Trial Practice in District Court*], 4 ZHONGGUO FAXUE (中国法学) [CHINA LEGAL SCIENCE] 238 (2018); see also Zuo Weimin (左卫民), *Zhongguo Zaixian Susong: Shizheng Yanji yu Fazhan Zhanwang* (中国在线诉讼: 实证研究与发展展望) [*Online Litigation in China: Empirical Research and Development Outlook*], 4 BIJIAOFA YANJIU(比较法研究) [JOURNAL OF COMPARATIVE LAW] 161 (2020).

²⁵ In 2006, a court in the Shaxian County in Fujian Province conducted an online hearing using QQ's video communication function, which was a milestone for online technology use in Mainland China's courts. Prior to this, some Chinese courts had used QQ, but only its text function. See Yu Li (李杲), *Lihuanan QQShangShen, Kuashen Wangluo Shiping Tingshen Shouxian Fujian*(离婚案·QQ上审, 跨省网络视频庭审首现福建) [*Divorce Case, Trial on QQ, Cross-provincial Network Video Court Trial First Appeared in Fujian*], Zhejiang Ribao (浙江日报) [ZHEJIANG DAILY], Dec 21, 2006, at A8.

²⁶ Chen Guomeng & Yu Zhiqiang, *Practical Exploration and System Construction on the Court of Internet in China*, 3 CHINA LEG. SCI. 3, 6–7 (2017), see also Tania Sourdin et al., *Court Innovations and Access to Justice in Times of Crisis*, 9 HEALTH POLICY AND TECHNOLOGY 447, 449 (2020).

²⁷ Junlin Peng & Wen Xiang, *The Rise of Smart Courts in China: Opportunities and Challenges to the Judiciary in a Digital Age*, 9 NORDIC JOURNAL OF LAW AND SOCIAL RESEARCH 345, 350–360 (2019).

²⁸ *Id.*

²⁹ Zuigao Renmin Fayuan Guanyu Shiyong Zhonghua Renmin Gongheguo Minshi Susong Fa de Jieshi (最高人民法院关于适用《中华人民共和国民事诉讼法》的解释) [Interpretation on Application of Civil Procedure Law of the People's Republic of China] (promulgated by Sup. People's Ct. Apr. 1, 2022, effective Apr. 10, 2022) art. 259 (Chinalawinfo). However, Article 5 of the "Regulations on the Work of Judicial Interpretation" issued by the Supreme People's Court of China stipulates that judicial interpretations issued by the Supreme People's Court hold legal validity. This means that although they do not have the same status as laws, judicial interpretations issued by the Supreme People's Court are recognised as legally binding and must be followed by lower courts. See Zuigao Renmin Fayuan Guanyu Sifa Jieshi Gongzuo de Guiding (最高人民法院关于司法解释工作的规定) [Regulations on the Work of Judicial Interpretation] (promulgated by Sup. People's Ct. Mar. 9, 2007, effective Apr. 1, 2007) art. 5 (Chinalawinfo) [hereinafter Judicial Interpretation Regulation].

³⁰ China's "13th Five-Year Plan for National Informatisation", issued by the State Council in December 2016, supports the construction of "smart courts", electronic judicial implementation, and improvement of judicial informatisation projects. See Guowuyuan Guanyu Yinfa "Shisanwu" Guojia Xinxihua Guihua de

approaches, with the introduction of WeChat mini programs by the Supreme People's Court in 2018 serving as a prime example of the wide support of the judiciary for the integration of new technologies in legal life.³¹

However, the absence of relevant laws or judicial interpretations regarding the specific online procedures of courts has meant that most courts have conducted their online activities following pre-existing procedural laws or judicial interpretations, which had been created without consideration for these technologies.³² To address this gap, the Supreme People's Court issued the 'Online Litigation Regulation in People's Court' in June 2021,³³ covering the basic principles and procedures of online civil case filing, the use of electronic documents, and online hearings.³⁴ In December of the same year, the 'Civil Procedure Law of the PRC' was amended, formally establishing that online civil court hearings have the same effect as offline court hearings.³⁵ The following sections detail how these regulations envision the use of these technologies in civil proceedings in Mainland China.

A. *Online civil case filing system and use of electronic documents in Mainland China*

China's traditional filing system for civil cases requires a party to physically submit a statement of claim, relevant evidence, and a copy of their ID card to

Tongzhi (国务院关于印发“十三五”国家信息化规划的通知) [Circular of the State Council on the Issuance of the National Informatization Plan for the 13th Five-Year Plan] (promulgated by St. Council Dec. 15, 2016, effective Dec. 15, 2016) (Chinalawinfo). In April 2017, China's Supreme People's Court announced the Opinions on Accelerating the Construction of Smart Courts, which supports the online processing of all court procedures and provides intelligent services for judges, litigation participants, the public and government departments. Also see Zuigao Renmin Fayuan Guanyu Jiakuai Jianshe Zhihui Fayuan de Yijian (最高人民法院关于加快建设智慧法院的意见) [Opinions of the Supreme People's Court on Accelerating the Construction of Smart Courts] (promulgated by the Sup. People's Ct. Apr. 12, 2017, effective Apr. 12, 2017) (Chinalawinfo).

³¹ This mobile micro-court allows parties to access more than 20 functions, including mediation, online filing, and fee payment from mobile devices. See Jia Yu & Jun Xia, *E-justice Evaluation Factors: The Case of Smart Court of China*, 37 INFORMATION DEVELOPMENT 658, 665 (2021).

³² Yang Zhang & Zirou Xie (章扬, 谢子柔), *Zaixian Susong Zhidu de Jianshe he Wanshan* (在线诉讼制度的检视与完善), [Reflection and Perfection of the System of Online Litigation], 4 Falvshiyong (法律适用) [JOURNAL OF LAW APPLICATION] 156, 161–164 (2023).

³³ Article 9 of the 'Regulations on the Work of Judicial Interpretation' stipulates that judicial interpretations can take the form of 'interpretation', 'provision', 'regulation', 'decision', or 'approval', so this regulation is also a judicial interpretation of the Supreme People's Court. See Judicial Interpretation Regulation art.6.

³⁴ The online civil litigation system in Mainland China is built on the foundation of the traditional litigation system, offering a wider range of platforms for case hearings and exchange of case information. Despite the additional technological options it provides, the online system remains subject to the same legal framework and procedures as traditional civil litigation. See Alison (Lu) Xu, *Chinese judicial justice on the cloud: a future call or a Pandora's box? An analysis of the 'intelligent court system' of China*, 26 INF. COMMUN. TECHNOL. LAW 59, 64–65 (2017).

³⁵ Minshi Susong Fa (民事诉讼法) [Civil Procedure Law] (promulgated by the Nat'l People's Cong. Apr. 9, 1994, modified Sep. 1, 2023) art. 16 (Chinalawinfo) [hereinafter Civil Procedure Law]. In Mainland China, only the National People's Congress or the Standing Committee of the National People's Congress can enact or amend laws. See Lifa Fa (立法法) [Legislation Law] (promulgated by the Nat'l People's Cong. Mar. 15, 2000, modified Mar. 13, 2023) art. 7 (Chinalawinfo).

the court.³⁶ The court then issues a written document of receipt if the filing complies with the law.³⁷ This process can, however, be time-consuming and lengthy for all parties involved. Chinese courts have responded by introducing an online filing system that simplifies this process.³⁸ This new system allows individuals to file cases online, eliminating the need to go to court and enabling parties to file cases outside normal business hours. Additionally, parties can track the progress of their cases online, reducing the need for them to contact the court repeatedly.³⁹

In filing proceedings, parties need to follow the ‘Online Litigation Regulation’ issued by the Supreme People’s Court, which outlines the steps that parties need to take to initiate legal proceedings online.⁴⁰ Firstly, parties must register on the court’s electronic litigation platform and verify their identity and other relevant information.⁴¹ After registration, the party can submit their application materials directly on the platform, and the court will review the materials to determine whether the case can be filed.⁴² Once the court has reviewed the application, the party will receive a text message indicating that the submission has been accepted. Alternatively, the parties can check the results of the review on the website. Additionally, when the online submission meets the court’s requirements and is accepted, the court does not require the party to provide further paper copies.⁴³

Further to these rules, the Supreme People’s Court of China also issued the ‘Provisions on Online Docketing Services for Parties to Cross-border Litigation’ in 2021, providing online case filing guidance for parties involved in cross-border litigation.⁴⁴ Under these rules, online litigation is facilitated for

³⁶ Civil Procedure Law, art. 123.

³⁷ *Zuigao Renmin Fayuan Guanyu Renmin Fayuan Dengji Lian Ruoguan Wenti de Guiding* (最高人民法院关于人民法院登记立案若干问题的规定) [Provisions on Several Issues Concerning the Registration and Filing of Cases] (promulgated by the Sup. People’s Ct. Apr. 13, 2015, effective May 1, 2015) art. 2 (Chinalawinfo).

³⁸ Supreme People’s Court’s 2015 ‘Provisions on Several Issues Concerning the Registration and Filing of Cases’ requires courts at all levels to provide electronic litigation services such as an online filing system. This provision led to the development of online filing platforms in courts nationwide, promoting efficiency and convenience in the legal process. See Xuguang Han, *SPC’s response to the proposal of ‘Establishing Online Filing’* (May 16, 2017), <https://www.court.gov.cn/zixun/xiangqing/44742.html>.

³⁹ Abdul Raufu Ambali, *E-Government Policy: Ground Issues in E-Filing System*, 11 EUROPEAN JOURNAL OF SOCIAL SCIENCE 249, 255 (2009).

⁴⁰ The litigation platform is generally set up by each local court, for example, in Guangdong Province, online filing can be done through the ‘Guangdong Court Litigation Service Website’. Guangdong Fayuan Susong Fuwu Wang (广东法院诉讼服务网) [Guangdong Court Litigation Service Website], <https://ssfw.gdcourts.gov.cn/>.

⁴¹ Renmin Fayuan Zaixian Susong Guize (人民法院在线诉讼规则) [Online Litigation Regulation in the People’s Courts] (promulgated by the Sup. People’s Ct. Jun. 16, 2021, effective Aug. 1, 2021) art. 7 (Chinalawinfo) [hereinafter Online Litigation Regulation].

⁴² Online Litigation Regulation, art 9 and 12.

⁴³ Online Litigation Regulation, art 9.

⁴⁴ The Civil procedure code of PRC does not explicitly mention when the hearing stage can begin. But the ‘Litigation Guide’ issued in the China Judicial Process Information Online mentions: ‘After the court has accepted the case, and after completing the pre-trial investigation and preparation, it should hear in accordance

those outside Mainland China. For example, residents of Hong Kong and Macau only need to submit proof of identification documents on the ‘Mobile Micro Court’, such as the ‘Residence Permit for Hong Kong, Macao Residents’ or the ‘Mainland Travel Permit for Hong Kong and Macao Residents’, to initiate the procedure of verification with mainland courts.⁴⁵ Once the court verifies their identity, they may proceed with the subsequent online case filing procedures.

B. The use of online hearings in civil and commercial proceedings in Mainland China

The hearing proceedings are initiated once the court has thoroughly examined and verified all relevant documents and confirmed that the case has been duly filed.⁴⁶ As per the current regulations, this hearing may take place through online proceedings, provided all parties have agreed to this.⁴⁷ Therefore, before an online hearing takes place, the court requests confirmation from all parties regarding their agreement to use an online format, with the proceedings taking place offline if no agreement is reached.⁴⁸ This approach is designed to safeguard each party’s right to choose the mode of hearing, a key aspect of Mainland China’s approach to the use of online hearings.⁴⁹ This is affirmed by the China Supreme People’s Court in its ‘Online Litigation Rules of People’s Courts’:

Respect and safeguard the rights of the parties and other participants in litigation to choose the method of litigation. Without the consent of the parties and other participants in litigation, the people’s court shall not compel or indirectly compel the use of online litigation.⁵⁰

When an online hearing is agreed upon, it follows essentially the same process as a traditional hearing. To initiate a hearing, parties must access an online platform named ‘Mobile Micro Court’ (People’s Court Online Litigation

with the statutory procedures’. Generally speaking, as soon as the court has accepted the case, it can proceed to the hearing stage. See Susong Liucheng (诉讼流程) [Litigation Process], China Judicial Process Information Online, <https://splcgk.court.gov.cn/gzfwwww/sszn/details?id=ff8080816002a51f01600bbc9f6f0101>.

⁴⁵ Zuigao Renmin Fayuan Guanyu Wei Kuajin Susong Dangshiren Tigong Wangshang Lian Fuwu de Ruogan Guiding (最高人民法院关于为跨境诉讼当事人提供网上立案服务的若干规定) [Provisions on Online Docketing Services for Parties to Cross-border Litigation] (promulgated by the Sup. People’s Ct., Feb. 3, 2021, effective Feb. 3, 2021) Sup. People’s Ct., art. 5 (Chinalawinfo).

⁴⁶ The Civil procedure code of PRC does not explicitly mention when the hearing stage can begin. But the ‘Litigation Guide’ issued in the China Judicial Process Information Online mentions: ‘After the court has accepted the case, and after completing the pre-trial investigation and preparation, it should hear in accordance with the statutory procedures’. Generally speaking, as soon as the court has accepted the case, it can proceed to the hearing stage. See *supra* note 44.

⁴⁷ Online Litigation Regulation, art 4.

⁴⁸ Online Litigation Regulation, art 4.

⁴⁹ The introduction of novel technologies frequently prompts public scrutiny of their efficacy, particularly within the judicial domain. Consequently, it becomes imperative to afford the public the autonomy to decide whether to adopt such technology. See Jiawei Zhang & João Ilhão Moreira, *Promoting Trustworthiness in the Application of Artificial Intelligence in the Judiciary: The Intersection of Media Communication, Court Decisions, and Public Trust*, 2 INTERNATIONAL JOURNAL OF CRIMINAL JUDICIAL SCIENCES 481 (2023).

⁵⁰ Online Litigation Regulation, art 2.

Service Platform)⁵¹ and are prompted to report on the signal quality and any technical issues that might affect the possibility of starting the hearing.⁵² In the absence of any such issues, the court initiates the proceedings, beginning with the introduction of evidence and followed by cross-examination and arguments from both parties, in the same fashion as in a traditional in-person hearing.⁵³ Therefore, online hearings in Mainland China are better understood as tools for promoting the efficiency of hearings than as a profound transformation in civil proceedings.⁵⁴

Overall, the online hearing procedure, like the possibility of submitting proceedings online, has proven to be an effective measure for ensuring that the litigation process is not disrupted, even during such public emergencies as the COVID-19 pandemic. These technologies have been widely adopted in Mainland China, with 29,960,000 cases filed online and 5,040,000 cases heard online since the start of the measures controlling the pandemic up to March 2023, a trend that has continued to the present.⁵⁵

IV. THE RAPID TRANSFORMATION IN THE USE OF TECHNOLOGY IN HONG KONG COURTS

After the transfer of sovereignty from Britain to China, the legal system in Hong Kong continued to use laws and rules enacted during the British Hong Kong era for civil disputes.⁵⁶ These rules were, by and large, silent on the use of technology by Hong Kong Courts.⁵⁷ This led to the notion that there was a need to embrace new technological means in court proceedings. In response, the Hong Kong Judiciary launched the ‘Information Technology Strategy Plan’

⁵¹ The Mobile Micro Court is a WeChat-based court technology platform introduced by the Supreme People’s Court in 2018. It leverages the mobile internet technology to enable online court hearings for civil and commercial cases. In turn, each province has its sub-platform. See Changming Hu (胡昌明), *Yidong Dianzi Susong de Sifa Shijian Jiqi Xiandu—Yi Zhongguo “Yidong Weifayuan” Weili* (移动电子诉讼的司法实践及其限度——以中国“移动微法院”为例) [*The Judicial Practice of Mobile E-Litigation and its Limits: The Case of China’s “Mobile Micro-Court”*], 2 ZHONGGUO YINGYONG FAXUE (中国应用法学) [CHINA JOURNAL OF APPLIED JURISPRUDENCE] 73 (2021).

⁵² See, e.g., Shenzhen Yidong Weifayuan Shiyong Zhiyin (深圳移动微法院使用指引) [Shenzhen Mobile Micro Court Usage Guidelines], <https://guanwang.szlfhy.gov.cn/news/21366.cshtml>.

⁵³ Guo Meirong, *Internet Court’s Challenges and Future in China*, 40 COMPUTER LAW AND SECURITY REVIEW 1 (2021).

⁵⁴ Jane Donoghue, *The Rise of Digital Justice: Courtroom Technology, Public Participation and Access to Justice*, 80 MOD. L. REV. 995, 1110 (2017).

⁵⁵ See Qiang Zhou (周强), *Zuigao Renmin Fayuan Gongzuo Baogao* (最高人民法院工作报告) [*Report on the Work of the Supreme People’s Court (2023)*], Sup. People’s Ct. Official Net (March 17, 2023), http://www.xinhuanet.com/politics/2023-03/17/c_1129439924.htm.

⁵⁶ This is one of the commitments China made in the Sino-Joint Declaration in exchange for a smooth transfer of sovereignty over Hong Kong, which was later confirmed as law in the Basic Law of Hong Kong. See Xianggang Tebie Xingzhengqu Jibenfa (香港特别行政区基本法) [Basic Law of Hong Kong] (promulgated by the Nat’l People’s Cong., April 4, 1990, effective July 1, 1997) art. 8 (Chinalawinfo).

⁵⁷ These include the High Court Ordinance and the Rules of the High Court and the District Court Ordinance and the Rules of the District Court.

in 2013 to increase the efficiency of cases by introducing legislation enabling the use of information technologies in the court system.⁵⁸

Significant changes to the use of information technologies in Hong Kong courts have taken place only recently. These were spurred by several cases⁵⁹ and guidance notes⁶⁰ showing strong support from Hong Kong's judiciary regarding the adoption of remote technology in the context of the pandemic. Equally important was the move by the Hong Kong Legislative Council to introduce seven laws in 2021 to enable the electronic sending and receiving of court documents, access to case-related information, checks on registers of proceedings, and electronic payments.⁶¹ These measures have streamlined the court process and have made it more efficient for litigants and their representatives to engage with the court electronically.

A. The online filing system and use of electronic documents in Hong Kong

As with Mainland China, one of the aspects of court proceedings in Hong Kong that has undergone the most significant changes has been the possibility of online filing of claims and evidence. Like many court systems around the world, the Hong Kong Judiciary faces the challenge of managing a high volume

⁵⁸ The Hong Kong Judiciary received funding in February 2013 to carry out a significant IT enhancement project called the 'Information Technology Strategy Plan'. This plan has four objectives: (a) upgrade and develop IT systems, (b) provide efficient and effective services to stakeholders, (c) enable active case management, and (d) respond to the expectations of court users. See Legislative Council Brief Court Proceedings (Technology) Bill, (2019) (AW-275-005-010-009/2019) (H.K.).

⁵⁹ In *Cyberworks Audio Video Technology Ltd (In Compulsory Liquidation) v Mei Ah (HK) Co Ltd & Ors* [2020] 2 HKC 133, the Court of First Instance found no prohibition against attendance at a hearing by means other than in person. Telephone and video hearings can facilitate fair and efficient proceedings by allowing the court to hear evidence without physical presence. The case of *CSFK v HWH* [2020] 3 HKC 64 supported this, noting that video hearings could be as effective as in-person hearings as long as they allowed for public and media observation, an accurate record of the proceedings, and guaranteed fairness.

⁶⁰ Including the 'Guidance Note for Remote Hearings for Civil Business in the High Court (Phase 1: Video-Conferencing Facilities),' the 'Guidance Note for Remote Hearings for Civil Business in the Civil Courts (Phase 2: Expanded Video-Conferencing Facilities and Telephone),' and the 'Guidance Note for Remote Hearings for Civil Business in the Civil Courts (Phase 3: Wider Video-Conferencing Facilities and Telephone).' The Hong Kong judiciary will implement the system in phases. The first stage covers the High Court (Court of Appeal and Court of First Instance), while the second stage applies to the court of Competition Tribunal, the District Court, and the Family Court. The third stage applies to the Small Claims Tribunal and Labour Tribunal. See Remote Hearings for Civil Business in Civil Courts, Hong Kong Judiciary Official Website, https://www.judiciary.hk/en/court_services_facilities/gap_remote_hearing.html.

⁶¹ The following laws have been enacted in Hong Kong to support the use of technology in court proceedings: the Court Proceedings (Electronic Technology) Ordinance, the Court Proceedings (Electronic Technology) (Specification of e-Courts) Rules, the Court Proceedings (Electronic Technology) (District Court Civil Proceedings) Rules, the Court Proceedings (Electronic Technology) (District Court Criminal Proceedings) Rules, and Court Proceedings (Electronic Technology) (Magistrates' Courts) (Electronic Fees) Rules. See Use of Electronic Technology in e-Courts, Hong Kong Judiciary Official Website, https://www.judiciary.hk/en/e_courts/uoetie_index.html.

of cases.⁶² As Hong Kong legal scholars have noted, the cumbersome and time-consuming nature of the traditional paper-based filing system leads to delays in processing cases.⁶³

The COVID-19 outbreak in Hong Kong in 2020 prompted the temporary suspension of in-person court filings as part of efforts to prevent the spread of the virus.⁶⁴ This caused many cases to remain unfiled, thus compromising the legitimate interests of parties seeking legal relief.⁶⁵ The on-site filing model proved inadequate in this context, prompting the introduction of the online filing model as a viable solution to allowing parties to file their cases while avoiding physical contact and reducing the risk of viral transmission. To facilitate this, the ‘Court Proceedings (Electronic Technology) Ordinance’ included a provision for electronic filing⁶⁶ and detailed guidance on initiating a new case through the system.⁶⁷

In addition to the possibility of submitting online, another transformation was the allowance of using electronic documents in judicial proceedings.⁶⁸ In alignment with the ‘Information Technology Strategy Plan’, the Court Proceedings (Electronic Technology) Ordinance now regulates the use of electronic documents in court proceedings, facilitating the electronic availability of documents. It further recognises the validity of electronically-made documents as equivalent to paper documents,⁶⁹ with parties and courts able to create, issue, send, receive, compile, record, and store legal documents electronically.⁷⁰

⁶² The number of cases under civil jurisdiction at all levels of courts in Hong Kong was 21,453 in 2018, 25,942 in 2019, and 24,153 in 2020. See Geoffrey Ma, *Hong Kong Judiciary Annual Report 2020*, Hong Kong Judiciary Official Website, https://www.judiciary.hk/en/publications/annu_rept_2020r/eng/home.html.

⁶³ Anselmo Reyes, *The Future of the Judiciary: Reflections on Present Challenges to the Administration of Justice in Hong Kong*, 44 HONG KONG L. J. 429, 436 (2014).

⁶⁴ See *supra* note 62.

⁶⁵ See *supra* note 62.

⁶⁶ The Court Proceedings (Electronic Technology) Ordinance, (2022) Cap. 638, 3, § 8(1)(a) (H.K.) [hereinafter Court Proceedings (Electronic Technology) Ordinance].

⁶⁷ The specific procedure is outlined in Part C of the guidance. It involves logging into the system, opening a new case in the function section and filling in case details, such as court level, case type, and relevant information. Documents like the Writ of Summons and Statement of Claim are uploaded in the Upload Documents module, followed by payment acknowledgment. The Judiciary reviews the case internally, and upon approval, the new case is created. See User Guide of e-Courts, Hong Kong Judiciary Official Website, https://www.judiciary.hk/en/e_courts/ref_userguide.html.

⁶⁸ Prior to 2020, Hong Kong’s ‘Electronic Transactions Ordinance’ placed restrictions on the use of electronic documents in court proceedings, leading to inefficiencies in court proceedings due to manual and paper-based processes. On this topic, see Daniel Senq, *The Singapore Electronic Transactions Act and the Hong Kong Electronic Transactions Ordinance*, 5 DIGITAL EVIDENCE AND ELECTRONIC SIGNATURE L. REV. 7 (2008).

⁶⁹ The Court Proceedings (Electronic Technology) Ordinance, § 25.

⁷⁰ The Court Proceedings (Electronic Technology) Ordinance, section 8. The Ordinance also allows for the service and authentication of electronic documents between parties and the court. Division IV of the Ordinance sets out authentication requirements for electronic documents made, issued, sent, or served by the court, or sent between parties. See Court Proceedings (Electronic Technology) Ordinance, Division IV.

B. The under-discussion online civil hearing system in Hong Kong

Following landmark cases such as *Cyberworks Audio Video Technology Ltd (In Compulsory Liquidation) v Mei Ah (HK) Co Ltd & Ors* and *CSFK v HWH*, Hong Kong courts have shown openness to conducting online hearings when such hearings meet the requirements of open justice and fairness. Specifically, the Hong Kong Court of Appeal was satisfied that:

[. . .] it is permissible and lawful to conduct remote hearings through VCF. Under the existing statutory frameworks governing civil proceedings in the High Court, there is no restriction against the conduct of hearing in such a mode. Section 28(1) of the High Court Ordinance, Cap 4 ('HCO') provides that the High Court shall sit at such places as the Chief Justice shall appoint. Section 34B, which governs the exercise of its civil jurisdiction by the Court of Appeal, refers to hearing or determining matters and arguments before the court. So long as the judges are sitting in the High Court, there is no specific provision restricting the mode of receiving submissions and evidence of the parties. Whilst normally a hearing will take place with all participants physically present in the courtroom, there is no rule prohibiting other modes of hearings if the dual requirements for fairness and openness are satisfied [...]⁷¹

This was particularly relevant in the context of the COVID-19 pandemic, with the judiciary promoting online hearings for civil disputes since April 2020. More than 1,000 online hearings, including those facilitated through phone and video conferencing, were conducted from May 2020 to the end of September 2021.⁷²

To facilitate online hearings, the Chief Justice issued a set of Guidance Notes outlining the procedures and guidelines for conducting remote hearings. According to the Guidance Notes, the court takes the lead in deciding which cases are suitable for online hearings through videoconferencing.⁷³ Parties who object can submit written proposals for alternative methods. Parties can also request the use of videoconferencing facilities.⁷⁴ During the online hearing, court rules and customs concerning attire and etiquette still apply.⁷⁵

Although online hearings are legal in Hong Kong, no specific ordinance currently regulates them. To address this gap, the Hong Kong Judiciary

⁷¹ See *CSFK v HWH* [2020] 3 H.K.C. 64, 7 (C.A.).

⁷² See Andrew Cheung Kui-nung, *Hong Kong Courts Conducted Over 1,000 Remote Hearings*, THE STANDARD, <https://www.thestandard.com.hk/breaking-news/section/4/182292/Hong-Kong-courts-conducted-over-1,000-remote-hearings>.

⁷³ *Guidance Note for Remote Hearings for Civil Business in the Civil Courts (Phase 2: Expanded Video-Conferencing Facilities and Telephone)*, https://www.judiciary.hk/doc/en/court_services_facilities/guidance_note_for_remote_hearings_phase2_20200608.pdf [hereinafter Guidance Note].

⁷⁴ According to the Guidance Note for Remote Hearings for Civil Business in the Civil Courts (Phase 2: Expanded Video-Conferencing Facilities and Telephone), the court will consider the views of the parties, the availability of videoconferencing equipment, the main elements of the proceedings or relevant parts thereof and all other key circumstances when deciding whether to use videoconferencing facilities. See *Guidance Note*, § 16.

⁷⁵ *Guidance Note*, § 28 and 36.

introduced the ‘Draft Courts (Remote Hearing) Bill’, ‘Practice Directions’, ‘Operational Guidelines’ and initiated a three-month public consultation in June 2022.⁷⁶ The proposed ordinance and other documents aim to create a clear legal framework that allows judges and judicial officers to order remote hearings across all court and tribunal levels, considering all relevant circumstances and upholding the principles of open justice and fair hearing. In May 2023, the Hong Kong Judiciary consulted the Panel on Administration of Justice and Legal Services of the Legislative Council regarding this bill and is currently finalising the content of the draft based on public feedback.⁷⁷ Despite legislative progress, it is anticipated that a significant amount of time will still be required before the Legislative Council ultimately approves the bill. As a lawyer from Hong Kong noted:

Much of the delay and reluctance appears to be a lack of confidence by key decision-makers about the need for the widespread implementation of technology in courts [...] while promising increased and quick access to information, legal practitioners are still wary of how the implementation of technology in courts may come with greater risks in compromising sensitive client data/information [...].⁷⁸

In other words, while there is no doubt that the pandemic has pushed the Hong Kong government and the courts to reconsider their stance towards the implementation of technology in court processes, it remains to be seen whether it results in an acceleration in the adoption of technological solutions or is simply a short-lived side-effect of the pandemic situation.⁷⁹

V. INFORMATION TECHNOLOGIES IN MACAU: SMALL INCREMENTAL CHANGES IN TIMES OF COVID-19

Court litigation in Macau is notable for having remained largely unchanged since the handover to the People’s Republic of China and, consequently,⁸⁰ having been largely insulated from all the technologies that have elsewhere become ubiquitous in the 21st century. Indeed, Macau’s rules on civil procedure are essentially derived from the 1999 Macau Civil Procedure Code, which provides limited guidance on the integration of information technologies into proceedings. Many of the practicalities of court litigation in Macau have, therefore,

⁷⁶ See Public Consultation on Remote Hearing: Draft Courts (Remote Hearing) Bill, Practice Directions and Operational Guidelines, Hong Kong Judiciary Official Website, https://www.judiciary.hk/en/court_services_facilities/remote_hearing_bill.html.

⁷⁷ Background Brief on the Courts (Remote Hearing) Bill, Hong Kong Legislative Council, CB(4)344/2023(04), <https://www.legco.gov.hk/yr2023/english/panels/ajls/papers/ajls20230503cb4-344-4-e.pdf>.

⁷⁸ Davyd Wong, *Technology in the Courtroom: a Smart Justice System*, STARANISE, <https://www.staranise.com.hk/knowledge-hub/articles/courtroom-technology-smart-justice-system.html>.

⁷⁹ *Id.*

⁸⁰ Paulo Cardinal, *The Role and Influence of Portuguese Law in the Macau SAR of People’s Republic of China: Issues and Perspectives*, in PORTUGAL AND THE LUSOPHONE WORLD: LAW, GEOPOLITICS AND INSTITUTION COOPERATION (Paulo Afonso B. Duarte et al. eds., 2023).

remained the same since the 1990s, with filings of new proceedings still most often being done either by fax or hand delivery of the necessary documents to the court registry and the use of online hearings being largely unavailable.

Importantly, the Macanese government has recognised the need to improve efficiency in judicial proceedings and consequently is proactively exploring various avenues to introduce additional e-services in the judicial context.⁸¹ Litigants in Macau can now use an electronic platform to submit their documents electronically and pay legal fees.⁸² The implementation of these e-services marks a significant step forward in the technological development of the Macau court system.⁸³ Beyond this initiative, however, Macau's use of information technology and its integration within court proceedings is very limited.

A. The new Macanese platform for online civil case filing and use of electronic documents

Given the relatively small volume of cases faced by the Macanese courts,⁸⁴ the Macanese Judiciary was, to some extent, less pressured to use electronic means of receiving judicial documents than the courts in Mainland China and Hong Kong. Nonetheless, it was recognised that submitting legal documents by registered mail or in person at the court and paying legal fees at the Post and Telecommunications Bureau was an outdated method of communicating with the court.⁸⁵ To streamline the judicial process and promote e-government, the government of Macau submitted 'the Law on Electronic Service of Process and Payment of Costs' (Law 5/2022) to the Legislative Assembly of Macau in 2021.⁸⁶ It was passed in June 2022.

⁸¹ The Secretary for Administration and Justice of Macau, Chan Hoi Fan, emphasised the significance of e-government as a vital aspect of developing a smart city. She further stated that the government is committed to enhancing e-government services and has already streamlined dozens of cross-departmental procedures to simplify processes. The government plans to continue promoting relevant initiatives gradually in the future, see Zhengfu Jixu Tuijin Dianzi Zhengwu Fazhan (政府继续推进电子政务发展) [Government Continues to Promote E-government Development], Government Information Bureau of Macau Website, <https://www.gcs.gov.mo/detail/zh-hans/N17HJEZRO?0-1.IBehaviorListener.0-header-fontSizeBtn2-Large>.

⁸² Envio de Peças Processuais e Pagamento de Custas Por Meios Electrónicos [The Law on Electronic Delivery of Legal Documents and Payment of Legal Costs] (promulgated by the Legislative Assembly, Jun. 9, 2022, effective Sep. 1, 2022) 2022 MACAU SAR. GAT art. 77 (M.A.C) [hereinafter Electronic Delivery of Legal Documents and Legal Costs Payment Law].

⁸³ Growing Trend of Electronic Judicial Systems and Strengthening of People-oriented Justice, Macao Yearbook 2022, https://yearbook.gcs.gov.mo/uploads/yearbook_pdf/2022/myb2022ePA01CH09.pdf (last visited 18 February 2024).

⁸⁴ According to the annual case statistics of the Court of First Instance (Tribunal Judicial de Base) in 2021, the number of new civil cases for the year was 2106. See the Annual Case Statistics of the Court of First Instance of Macau SAR, Courts of Macau (2021), <https://www.court.gov.mo/pt/subpage/statisticstjb?report=2021>.

⁸⁵ See the Liyou Chenshu: Yi Dianzi Fangshi Jiaosong Susong Wenshu Ji Zhifu Susong Feiyong Faan (理由陈述:以电子方式送交诉讼文书及支付诉讼费用法案) [Statement of Reasons for Enacting the "Law on Electronic Service of Process and Payment of Costs"], the LEGISLATIVE ASSEMBLY OF MACAU (2021), <https://www.al.gov.mo/uploads/attachment/2021-12/7077861b164ed09b22.pdf>.

⁸⁶ Based on this law, the Court of Final Appeal of Macau issued the 'Regulations on the Use of the Court's Exclusive Electronic Platform' and the 'Specification of the Technical Elements of the Court's Exclusive

Under these new rules, parties can now deliver legal documents electronically through the court's electronic platform, with the same legal effect as paper submissions, thus eliminating the need to send originals or copies of paper documents,⁸⁷ although parties must still produce original documents when ordered to do so by the judge.⁸⁸ Additionally, the recently passed Law 5/2022 recognises the legal validity of documents submitted electronically, making them equivalent to documents submitted in physical form.⁸⁹

In practical terms, the submission system makes use of the new 'Macau One Account' project, which operates as a unified platform through which residents have access to e-government services.⁹⁰ Parties can submit court documents electronically by logging in to the 'Electronic Platform of Court' using their 'Macau One Account' and selecting 'Electronic Submission of Court Documents'. They can then fill in the case information, select the court to which they wish to submit their documents, and provide the necessary information in 'Document Description'. Upon confirming the accuracy of the information provided, parties can upload their documents, along with any evidentiary materials, and can complete the delivery process through electronic identification using the 'Macau One Account' mobile application.⁹¹

B. The lack of an online hearing system in the Macanese judicial system

Beyond this new submission system, however, no further reforms have been undertaken, for example, to allow online hearings. The Macau Civil Procedure Code does not have a direct provision allowing for online hearings; witnesses are expected to attend any hearings in person.⁹² The Macau Civil Procedure Code does establish that if a witness is unable to attend a court hearing or finds it challenging to do so, he/she may be allowed to give testimony by telephone or other means of direct communication with the court, provided that

Electronic Platform' to refine the rules on the use of the Court's exclusive electronic platform, the online payment of fees and the transfer of documents. *See* Despacho do Presidente do Tribunal de Última Instância n.º 1/2022 [Order of the President of the Court of Final Appeal No. 1/2022] (promulgated by the Office of the President of Court of Final Appeal, Aug. 24, 2022, effective Sep. 1, 2022) MACAU SAR. GAT August 29, 2022, <https://www.court.gov.mo/tools/attachment/1661908588xueiq.pdf> (M.A.C).

⁸⁷ Electronic Delivery of Legal Documents and Legal Costs Payment Law, art. 7.

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ To unify electronic public service accounts and platforms in Macau SAR, the 'Macau One Account' was launched on January 1, 2019. Complying with 'Administrative Regulation No. 35/2018' and 'Chief Executive Order No. 301/2018', it allows the public to access electronic services from SAR's departments through a unified e-account, facilitating public access. This initiative supports Macau SAR's strategic objective of integrating electronic public service accounts and platforms, improving convenience and accessibility for the public. *See* Conta Única de Macau (Pessoas singulares) ['Macau One Account (Individual)'], MACAO SAR GOVERNMENT OFFICIAL WEBSITE, <https://www.gov.mo/pt/servicos/ps-1047/>.

⁹¹ *See* Fayuan Dianzi Zhifu Susong Feiyong Shiyong Liucheng (法院電子支付訴訟費用使用流程(網頁版)) [Procedure for using the Court's Electronic Payment of Litigation Fees (Online Version)], Government of Macau SAR, <https://www.court.gov.mo/zh/subpage/electronic>.

⁹² Código de Processo Civil [Civil Procedure Code] (promulgated by the Legislative Assembly, effective Oct. 1, 1999) 1999 MACAU SAR. GAT art. 477 (M.A.C) [hereinafter Macau Civil Procedure Code].

this action is compatible with the nature of the investigation and the interpretation of the facts.⁹³ Still, Macanese courts have not often taken advantage of this provision; even when they have, they have not interpreted it as allowing for the possibility of using videoconferencing software.

It should be noted that, despite the COVID-19 pandemic's impact on Macau and the aforementioned legal limitations, the region's courts remained operational throughout the pandemic crisis. Although court proceedings faced significant disruptions, which resulted in temporary suspensions of some cases, the Courts of First Instance continued to function effectively.⁹⁴ As a result, the overall caseload remained manageable, which may explain why there are no immediate plans to introduce online hearings.⁹⁵

VI. THE CASE FOR IMPROVING AND INTEGRATING THE USE OF TECHNOLOGY BY COURTS IN THE GREATER BAY AREA

The Guangdong–Hong Kong–Macau Greater Bay Area aims to create a cohesive economic region with global influence. Achieving this goal requires addressing the increasing number of cross-border civil disputes, which can be better done by adopting new technologies, such as online filing and video communication. However, the measures implemented so far have been fragmented, and a more systematic approach is necessary to establish effective and efficient dispute resolution mechanisms. The three regions have made major strides in integrating information technologies into their court practices, particularly in Mainland China. In the post-pandemic era, Mainland China has continued to promote the usage of new technologies in court proceedings.⁹⁶ For instance, from January to September 2023, mainland Chinese courts processed a total of 10.856 million cases online, representing a year-on-year increase of 24.26%.⁹⁷ In addition, a substantial number of e-courtrooms have been established nationwide.⁹⁸ Despite this, each region can make further improvements.

⁹³ Macau Civil Procedure Code, art. 542.

⁹⁴ See Houfai Sam (岑浩辉), *Zai 2022 zhi 2023 Nian Aomen Tebie Xingzhengqu Sifa Niandu Bimu Dianli Shang de Jianghua* (在2022至2023年澳门特别行政区司法年度闭幕典礼上的讲话) [*The Speech of the President of the Court of Final Appeal at the Opening Ceremony of the Judicial Year 2022/2023*], ZHONGSHEN FAYUAN (终审法院) [COURT OF FINAL APPEAL], <https://www.court.gov.mo/uploads/attachment/46/pdf/1666178446okpea.pdf>.

⁹⁵ See *Opinion No. 3/VII/2022*, Assembleia Legislativa da R.A.E.M. [Macau Legislative Council of Macau], <https://www.al.gov.mo/uploads/attachment/2022-05/84273629575466e765.pdf>.

⁹⁶ In the first meeting of the 14th National People's Congress in 2023, the president of the SPC affirmed that 'We should comprehensively promote smart service, smart hearing, smart execution, and smart management. Build a smart court with all business online, all processes open according to law, and all-round smart services.' See *supra* note 55.

⁹⁷ See *supra* note 95.

⁹⁸ Currently, in Mainland China, more than 38,000 e-courtrooms have been established, all of which support online hearings. Over 3,500 courts have fully integrated with the "Mobile Micro Court" (People's Court Online Litigation Service Platform) platform, making the online hearing mode an essential component of Mainland China's litigation procedures. See Ling Sun (孙翎), *Zaixianban Dapo Shikong Jiexian Yuntingshen Zhuli Sifa Gongzheng* ("在线办"打破时空界限,"云庭审"助力司法公正) [*Online Operations Break The*

For instance, while the online civil case filing system and use of electronic documents in Mainland China are arguably more advanced and widely adopted than those of Hong Kong and Macau,⁹⁹ some issues remain. One issue relates to the lack of uniformity in the rules governing online litigation in Mainland China, which has resulted in inconsistencies among local courts. The operating guidelines of electronic document transmission platforms used by Mainland China's courts are not standardised; different courts use different e-court platforms.¹⁰⁰

A potential solution consists of building a unified regional e-court platform on top of existing platforms, an approach deemed to have the potential to improve the quality and reduce the cost of operating these systems.¹⁰¹ It should be noted that this approach has already been implemented in the Guangdong Province in the form of the 'Guangdong Court Litigation Service Network'. Unifying other regions based on this platform and continuing its development would better serve parties and protect their data privacy.¹⁰²

Beyond Mainland China, aspects of technology integration within judicial proceedings in Hong Kong and Macau remain comparatively underdeveloped. In Hong Kong, while significant steps were undertaken to deal with the pandemic, aspects of the use of technology in court proceedings are still under-regulated. In particular, regarding videoconferencing, while case law has settled its legality, there is arguably some uncertainty regarding the criteria for granting such an application and how these should be handled.¹⁰³ While allowing courts some discretion on whether remote hearings are to be used in a particular proceeding is a positive feature, a clearer definition regarding how this is to be applied in practice will benefit the system's users.¹⁰⁴

Constraints of Time And Space, Online Hearings Contribute to Judicial Fairness], CHINA NEWS (March 11, 2023), <https://www.chinanews.com.cn/gn/2023/03-11/9969545.shtml>.

⁹⁹ Mainland China has also begun to use big data, blockchain and artificial intelligence in courts. See Henry Zhuohao Wang, *China's E-Justice Revolution*, 105 JUDICATURE 36 (2021).

¹⁰⁰ For example, the Shenzhen Intermediate People's Court has constructed a specific online litigation service platform for Shenzhen courts. See Yan Zhang (张燕), "Yihaotongban" Jiejue Qunzhong Suqiu Daxiaoshi ("一号通办"解决群众诉求大小事) ["Yihaotongban" Addresses Both Major And Minor Public Concerns], Shenzhen Tequ Bao (深圳特区报) [SHENZHEN SPECIAL ZONE DAILY], Jul 17, 2023, at A02.

¹⁰¹ Xin Peng (彭昕), *Yuanchen Tingshen: Shijian Kunjing Yu Wanshan—Jiyu Xinguan Feiyan Yiqing Qijian Yuancheng Tingshen de Shijian Kaocha* (远程庭审:实践、困境与完善——基于新冠肺炎疫情期间远程庭审的实证考察) [*Telecourting: Practice, Dilemmas and Improvements – An Empirical Examination of Telecourting during the New Coronary Pneumonia Epidemic*], 1 BEIJING JINGCHA XUEYUAN XUEBAO (北京警察学院学报) [JOURNAL OF BEIJING POLICE COLLEGE] 27 (2021).

¹⁰² Shang Shu Carrie & Guo Wenli, *The Rise of Online Dispute Resolution-Led Justice in China: An Initial Look*, 1 THE ANU JOLT 25, 39–40 (2020).

¹⁰³ See Draft Courts (Remote Hearing) Bill, Practice Directions and Operational Guidelines (2022), https://www.judiciary.hk/remote_hearing_bill/consultation_doc/eng.pdf.

¹⁰⁴ The Draft Bill proposes the following: [The] Court must consider the following factors as appropriate in deciding whether to make a remote hearing order: (a) the nature, complexity and urgency of the proceeding; (b) the nature of the evidence intended to be adduced; (c) the views of the parties; (d) the ability of the parties to engage with and follow the proceeding (if conducted through a remote medium); (e) the personal or special circumstances of the parties, including any visual or auditory impairment, cognitive difference and mental or psychological health issue; (f) the maintenance of the rights of the parties; (g) whether the parties are legally

Macau is even more behind in this process, not having established an online hearing system. Given the comparatively smaller number of cases in its courts, Macau is potentially the Region that would benefit most from adopting the best practices of its neighbouring regions. However, given the current limitations of the Macao Civil Procedure Code, further steps in this regard will likely demand wider transformations in the Region's legislative framework. In practice, full deployment of information technologies in judicial proceedings in Macau would require a revision of its Civil Procedure Code.

Other aspects can be improved to advance technology use in judicial proceedings. As has been shown in other jurisdictions, providing timely training and guidance to judges and counsel is an important element of introducing new technologies to judicial proceedings.¹⁰⁵ Furthermore, continuing a proactive approach to the introduction of new technologies and benchmarking the productivity of courts against that of other jurisdictions should become a routine part of the way Mainland China, Hong Kong, and Macau approach the integration of technology into their proceedings.

Overall, further increasing technology integration into judicial proceedings would certainly be a net positive in the context of the Greater Bay Area's development. By strategically adopting technology in its court systems, the Guangdong–Hong Kong–Macau Greater Bay Area can become a leading region in dispute resolution. Increased efficiency, streamlined dispute resolution, and enhanced security will certainly create a more attractive business environment for those operating in the Region. This is, therefore, another domain in which the Greater Bay Area can become a leader over time.

represented; (h) whether the privileged communication between the parties and their respective legal representatives may be affected; (i) whether the parties and the parties' legal representatives can conduct their cases effectively; (j) the measures to be taken to ensure that evidence is given freely without coercion or other influence; (k) the potential impact of the order on the assessment of the credibility of witnesses and the reliability of the evidence presented; (l) whether the use of remote medium is likely to promote the fair and efficient disposal of the proceeding; (m) whether the right to a fair trial can be effectively maintained; (n) the quality and security of the remote hearing facilities and their availability to the parties; (o) whether there is any public order, security, public health or emergency concern which makes it undesirable or impracticable for the parties to attend the proceeding in person; and (p) any other relevant considerations. *Id.*

¹⁰⁵ See *supra* note 12, at 8. The judiciary of Hong Kong has recognised the importance of this issue, with Hong Kong's Chief Justice mentioning, in his speech at the 'Ceremonial Opening of the Legal Year 2023', that judges and support staff will receive adequate training to keep up with developments in court technology. See Andrew Cheung Kui-nung, *CJ's speech at Ceremonial Opening of Legal Year 2023*, Hong Kong Judiciary Official Website, https://www.hkcfh.hk/filemanager/speech/en/upload/2284/speech_20230116_01en.pdf; see also Jack Burke & Shaun McCarthy, *Should Remote Hearings Be Extended Post the COVID-19 Pandemic in Hong Kong and What Could Be the Ramifications for Practical Legal Training?*, 9 J. INT. COMP. L. 155, 175 (2022).