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Views of the Irish Judiciary on Technology in Courts: Results of a Survey

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VIEWS OF THE IRISH JUDICIARY ON TECHNOLOGY IN COURTS: RESULTS OF A SURVEY

Abstract: Technology continues to transform how judges perform their functions, both in Ireland and elsewhere. This article reports the results of a survey of Irish judges on their use of technology in their role, their attitudes towards technology, and their views on how it impacts on the judicial function. The survey, part of a global survey, found that Irish judges habitually used digital technologies, and were broadly satisfied with the technology available in chambers, but less so with what was provided in courtrooms. Although generally happy to embrace change, the majority of respondents were concerned with, and did not prefer, online hearings as a substitute for in-person hearings, with many highlighting fundamental issues regarding fair and open justice in this regard.

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Introduction

Emerging technologies continue to transform how judicial systems operate and how judges perform their functions. Improvements in software, internet access and the evolution and application of artificial intelligence tools and blockchain technology present opportunities for judicial systems to deliver more efficient, and potentially more effective, justice. In particular, the rapid shift to online court proceedings using video-conferencing platforms during the COVID-19 pandemic brought about significant changes to how courts operate which merit retrospective evaluation. Judges in jurisdictions around the world are grappling with this technological change and its impact on their role. What is their experience of this change? What are their impressions of the technology they use today, and how do they expect the judicial function to evolve in the future?

A global survey, co-led by one of the authors of this paper, is currently being conducted by researcher members of an International Research Collaborative (IRC) on Judges and Technology.¹ The IRC comprises about 60 scholars and judges worldwide under the auspices of the Law and Society Association. To date, approximately 1,000 judges have participated in national survey studies using the same survey instrument in Ireland, Scotland, Canada, Brazil, Kenya, Australia, New Zealand, Spain and Portugal. Data collection is ongoing, and comparative analysis of the total dataset is expected to take place towards the end of 2023. This article describes and analyses the results of the national survey study of Irish judges on their use of and views on technology in Irish courts.

The remainder of this article comprises three parts. Part 1 provides background and context for the survey study by outlining the development and current state of technology in Irish courts. Particularly significant in this regard are recent initiatives and strategic plans developed by the Courts Service, most notably the Courts Service's ICT Strategy 2021 – 2024, but also broader digital strategies at a national policy level. Part 2 describes the aims, objectives and method of the survey. Part 3 presents and analyses the results of the survey

¹ For further information, Law & Society Association, 'International Research Collaboratives: Judges and Technology' <<https://www.lawandsociety.org/lsairc19/>> accessed 23 January 2023.

study. The article concludes by setting out further research questions that the survey results suggest.

To briefly synthesise the findings, judges were broadly positive about the technology that they used, and were relatively unconcerned by (or even in some cases satisfied with) technological change, although they were more circumspect about remote court proceedings using video-conferencing technologies.

Part 1: The development and current state of technology in Irish courts

The Irish courts did not have any significant investment in information and communication technology (ICT) until this century. The Working Group on the Courts Commission (whose work led to the creation of the Courts Service as an independent agency to manage the courts) underlined the value of developing appropriate systems during its work in the late 1990s, saying that ‘the application of modern technology to the Courts would be of considerable benefit.’² Since then, considerable developments have taken place, as documented in the annual reports of the Courts Service.³ However, there was under-investment during the financial crisis that began in 2008 and the general reduction in public expenditure which followed, leading to concerns about the poor state of ICT infrastructure by the mid-2010s.⁴ This has been substantially addressed in recent years, including the announcement of a €100 million programme for this decade.⁵ The Courts Service has adopted ‘Digital First’ as one of its six strategic goals for 2021-23, as a foundation for achieving its ‘Strategic Vision 2030’, which is ‘a modern, digital first, user focused courts system.’⁶ Under this heading, a number of milestones have already been achieved: modernising application architecture, a pilot online appointment booking system, expanding video courtroom technology, testing cashless payments, and collaborations with other agencies on digital data sharing and exchange projects.⁷ Also, as might be expected and in common with other state agencies and large organisations, ICT is an important aspect of other strategic goals of the Service: family law reform (initially maintenance payments),⁸ provision of support services for the judiciary (particularly an online ‘Knowledge Hub’ portal for judges),⁹ and improvements to work practices (modernisation of computer desktops).¹⁰

Similarly unsurprising (and well-known) is the impetus that the COVID-19 pandemic gave to some specific aspects of ICT adoption, particularly the use of video-conferencing and remote hearings: the number of remote calls increased dramatically, from 8,254 in 2019 to 28,289 in 2020 and 38,176 in 2021; an increase of 343% and then 135% year-on-year and 463% over the three years. Feedback from court users on these were quite positive.¹¹ Other technologies which are focused on assisting with court processes and proceedings while responding to the exigencies of the pandemic have been introduced, such as a remote hearing

² Working Group on the Courts Commission, ‘Second Report: Case management and court management’ (1996) 10 <<https://www.courts.ie/policy-reports-strategic-plans###Pub19>> accessed 27 February 2023.

³ See Courts Service, *Annual Report 2019*, 38–40 <<https://www.courts.ie/annual-report>> accessed 27 February 2023. Further annual reports are available at <<https://www.courts.ie/annual-report>>.

⁴ Mark Hilliard, ‘Courts Service boss fears collapse of IT system’ *The Irish Times* (Dublin, 28 November 2015).

⁵ Colm Keena, ‘€100 million digital-first plan for courts could allow online guilty pleas’ *The Irish Times* (Dublin, 18 January 2020).

⁶ Courts Service, *Annual Report 2021*, 18 <<https://www.courts.ie/annual-report>> accessed 27 February 2023.

⁷ *ibid* 24–35.

⁸ *ibid* 29.

⁹ *ibid* 31.

¹⁰ *ibid* 35.

¹¹ *ibid* 23.

platform; technology-enabled ‘pop-up’ courtrooms; design of new digitally enabled jury empanelment solutions in nearby but remote settings (providing for social distancing measures); digitally enabled overflow facilities catering for legal teams, members of the media and the public; new digital systems to support information sharing by legal practitioners (to reduce manual paper-based distribution requirements); and the rollout of supporting technologies, such as Wi-Fi.¹²

The Service has ambitious plans for the future. As part of its ‘Modernisation Programme’ to 2030,¹³ it aims to design and deliver effective processes and systems to court users to enable a digital court experience.¹⁴ Its vision is of ‘enabling coherent end-to-end user-centric digital journeys, designed and built in a co-creative, multidisciplinary and agile manner, where ICT works in partnership with the business and the judiciary.’¹⁵ The use of terminology from agile software development and design thinking methods indicates that approaches to deployment are being modernised in tandem with the technologies adopted. Its ICT Strategy 2021 – 24 is structured around six themes:

1. Court Technology;
2. Unified Case Management Platform;
3. Desktop and Infrastructure Modernisation;
4. Security and Resilience;
5. Capacity, Capability and Governance; and
6. Data as an Enabler.

These encompass some 42 significant actions which aim to improve and expand the availability and usefulness of ICT for Courts Service staff, court users, and the judiciary. In broad terms, these could be seen as *consolidation* of work already begun (such as networking of court buildings), *integration* of internal and external systems (bringing together the diverse civil, criminal, and family law databases and processes, and better connecting to other agencies such as An Garda Síochána) and *experimentation* (with indications that the Service may explore new technologies such as e-signatures, artificial intelligence and blockchain).¹⁶ For the time being, the focus is likely to be on the first two of these, as it is clear that there remains substantial work to be done in order to bring a disparate and sometimes creaking infrastructure up-to-date.¹⁷

Although it is not as immediately relevant to the courtroom experience of judges, practitioners or litigants, it should be noted that the Courts Service has also published a ‘Data Strategy 2021-24’, which is a novel development. This should be a foundation for the efforts outlined above, aiming to enhance the management of courts’ data through 23 actions grouped under headings of better governance, use of data, improved processes and

¹² Courts Service, *ICT Strategy 2021 – 2024* (30 September 2021), 7–8 < https://www.courts.ie/acc/alfresco/10e5f628-0ffd-4817-935f-e5818626827e/2809_CT_ICT_Strategy_v10.pdf/pdf#view=fitH > accessed 3 March 2023.

¹³ *ibid* 7–8.

¹⁴ *ibid* 13.

¹⁵ *ibid* 13.

¹⁶ Rónán Kennedy and others, ‘Lawtech in Ireland: A Snapshot’ (Computers and Law, 22 December 2022) < <https://www.scl.org/articles/12769-lawtech-in-ireland-a-snapshot> > accessed 11 January 2023.

¹⁷ The Report of the Judicial Planning Working Group commissioned by the Department of Justice further details these challenges and notes that the ‘development of modern and integrated IT solutions should remain a priority for the Courts Service.’ Department of Justice, *Report of the Judicial Planning Working Group* (Department of Justice 2022) 111 < <https://www.courts.ie/content/publication-judicial-planning-working-group-report> > accessed 27 February 2023.

technology.¹⁸ It includes a commitment to the development of a Courts Service Open Data Portal which may lead to interesting re-use of court data in the future.

Part 2: About the survey study

The aims of the global survey of judges, and the survey of Irish judges as part of that wider project, were:

- to understand what technologies judges currently use in their role;
- to collect and analyse judges' views, perceptions, attitudes and satisfaction levels with the technologies that they use; and
- to collect and analyse judges' views about broader issues of the role of technology and its impact on the judicial function, both at present and in the future.

The survey instrument was designed by the first author and co-principal investigator, Professor Tania Sourdin, with input from members of the IRC. Drafts of the survey instrument underwent various phases of consultation with leading scholars in judicial studies.¹⁹ In particular, the researchers consulted with Professor Cheryl Thomas, author of the UK Judicial Attitude Survey, the most recent of which was conducted in 2020.²⁰ The UK Judicial Attitude Survey asks a limited number of questions about judges' attitudes towards the technologies that they use. The survey instrument for the present study used the exact wording as those questions in the UK Judicial Attitude Survey to generate comparative data. The survey was conducted online through the Question Pro platform, using a series of closed format questions with binary yes/no or multiple-choice responses, attitudinal-style questions using Likert scales and 'open comment' style questions. The survey instrument was broken into seven primary sections. The first section gathered information about participant judges' judicial posts, including their court level, jurisdiction, caseload composition and level of experience on the bench. The second section concerned judicial resources and digital working. The third section concerned the judiciary and technology, focusing on broader issues of the impact of technology on the judicial role. The fourth section sought information about working conditions. The primary purpose of this section was to generate comparative data to complement the output of Professor Thomas' Judicial Attitude Survey study of UK judges.²¹ The fifth section addressed training and personal development for judges about technology. The sixth section, titled 'change in the judiciary', asked judges about their perceptions and attitudes towards change in the judicial function. The seventh section, entitled 'being a member of the judiciary', returned to themes explored in Professor Thomas' Judicial Attitude Survey around judges' perceptions of various groups – parties, the public,

¹⁸ Courts Service, 'Data Strategy 2021 – 2024', 8 < <https://www.courts.ie/acc/alfresco/4b2aaffb-e567-4eba-8e33-443f1245696b/Courts%20Service%20Data%20Strategy%202021%20-%202024.pdf/pdf#view=fitH> > accessed 27 February 2023.

¹⁹ The authors would like to acknowledge the significant contributions, in particular, of Kathy Slowey, Amelia Rebellato and Charlotte Kuszelyk for their research assistance at various stages of the project and to Professor Sharyn Roach Anleu and Professor Cheryl Thomas for their feedback and insights into the survey instrument at the drafting stage.

²⁰ See further, Cheryl Thomas, *2020 UK Judicial Attitude Survey - Report of Findings Covering Salaried Judges in English and Welsh Courts and UK Tribunals* (UCL Judicial Institute 04 February 2021) <<https://www.judiciary.uk/guidance-and-resources/judicial-attitudes-survey/>> accessed 23 January 2023, Cheryl Thomas, *2020 UK Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Scotland* (UCL Judicial Institute 25 February 2021) <https://www.judiciary.scot/docs/librariesprovider3/judiciarydocuments/judiciary/scotland-judicial-attitude-survey-2020-publication-25-feb.pdf?sfvrsn=7e0823ca_2> accessed 23 January 2023, and Cheryl Thomas, *2020 UK Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Northern Ireland* (UCL Judicial Institute 25 February 2021) < <https://www.judiciaryni.uk/sites/judiciary/files/media-files/2020%20Judicial%20Attitude%20Survey%20-%20Northern%20Ireland%20-%2025%20Feb%202021.pdf> > accessed 23 January 2023.

²¹ *ibid.* The focus of this article is on judges and technology. As such, questions from this section are not addressed in this article.

government, legal representatives, court staff, media and colleagues.²² The eighth and final section asked some questions about participants' demographic profile, such as their age, gender and educational background, which participants were explicitly advised were optional. Judges consented to participate in the survey before answering questions after reading an information sheet. They were advised that anonymity was guaranteed and that any identifying information in the data would be removed in advance of data analysis (although this did not prove to be necessary for any instance). The Human Research Ethics Committee at the University of Newcastle, New South Wales, granted research ethics approval for the global project, and the Research Ethics Committee at TU Dublin granted research ethics approval for the Irish judges' survey. The Irish judges' survey study was approved for circulation to the Irish judiciary by the Legal Research and Library Services Committee of the Courts Service in accordance with their protocol for judicial participation in academic research projects.²³ The survey was disseminated by email by Courts Service personnel to all members of the Irish judiciary on 22 June 2022 and closed on 30 August 2022.

Part 3: Results of the survey and analysis

About the participants

55 judges participated in the survey out of a population of 173 serving judges (32% overall).²⁴ 21 were judges of the District Court (38%), 13 were Circuit Court judges (24%), 16 were High Court judges (29%), and five were Court of Appeal judges (9%). No Supreme Court judges participated in the survey. Nevertheless, the spread of judges across the other four courts was broadly representative of the total population of judges.

Judges provided information about their level of experience on the bench. One participant first started working as a judge in an Irish court before 1995, none started between 1995-1999, one started between 2000-2004, six (11%) started between 2005-2009, 14 (26%) started between 2010-2014, 15 (28%) started between 2015-2018 and 17 (31%) started between 2019 to mid-2022 when the data was collected.²⁵ As such, some 85% of participants started in their role during or after 2010. Nearly half (46%) of the 54 who responded had served on their current court for between one to five years. Participating judges described their caseloads as follows: 15 (28%) described theirs as either exclusively or mainly criminal law, 15 (27%) described their case law as exclusively civil law,²⁶ five (9%) as mainly civil law, and 17 (31%) as a mix of criminal and civil law. Three (5%) described their case law as 'other.'

Judicial resources and digital working

The survey asked judges about technology resources and digital work practices. The vast majority of judges indicated that they used a computer to prepare judgments (51, 93%), remote video conferencing platforms (42, 76%), audio playback (43, 78%) and online legal

²² Again, questions from this section are not addressed in this article.

²³ For further information, see Courts Service, 'Legal Research and Library Services' <<https://www.courts.ie/legal-research-and-library-services>> accessed 23 January 2023.

²⁴ Although 63 judges opened the survey instrument, eight judges abandoned the survey before answering any substantive questions on their use of, and attitudes towards technology. As such, these eight participants who only answered initial questions categorising their role (court level, experience on the bench etc.) were removed from the analysis, leaving a final dataset the 55 judges – ie, those who engaged with the substantive questions on their use of and attitudes towards technology. The 55 participant judges did not answer all questions. Therefore, the data presented here notes the number of participants who responded to each question. The figure of 173 judges is, to the best of the authors' knowledge, correct on 30 August 2022, the date that the survey closed. One new judge was appointed to the Irish bench during the data collection period.

²⁵ One judge did not provide a response to this question.

²⁶ The authors decided, for clarity, to use round percentage numbers without decimal points. As such, some necessary differences in percentage calculations may appear, as in this instance.

databases to access case law, legislation, commentary etc. (44, 80%). Judges were broadly positive about the standard of IT equipment that they personally use when working at court (i.e. laptop, desktop computer, software). 12 (22%) rated this equipment excellent, 17 (31%) good, and 14 (25%) adequate – a combined positive response of 43 out of 55 judges (78%). To compare this finding with UK judges, this satisfaction level broadly corresponded with equivalent findings from the 2020 UK Judicial Attitude Survey which asked the same question: in England and Wales the combined positive response was 74%, in Northern Ireland, 84%, and in Scotland, 88%.²⁷ This finding of Irish judges' views on the IT equipment that they personally use broadly mirrored views on the standard of equivalent IT equipment available to judges for working remotely: eight (15%) rated this excellent, 25 (45%) good, 15 (27%) adequate – a combined total of 48 out of 55 judges (87%). Relatively speaking, there was marginally less satisfaction with the standard of IT equipment used in trials and hearings (e.g., playback and video link equipment, tele-conferencing). In this instance, two (4%) rated this equipment excellent, 17 (31%) good, 22 (40%) adequate, with a sizable minority of 12 (22%) rating this equipment poor. Two (4%) said they did not have it. Judge participants rated IT support very highly – a combined total of 51 (93%) said such support available in their court building was adequate, good or excellent, while a combined total of 48 (88%) rated such support when working remotely as adequate, good or excellent.

Judges' personal internet access in courtrooms and general availability of Wi-Fi in court buildings came in for varying degrees of criticism. While 38 of 54 (70%) said that personal internet access in courtrooms was either adequate, good or excellent, some 15 judges (28%) said that internet access was poor, and one District Court judge said there was no internet access available. Judges on the District Court and Circuit Court generally rated internet access poorer than judges on the High Court and Court of Appeal did. 13 of 52 (25%) judges reported that Wi-Fi was not available in courtrooms, while 18 of 49 (18%) reported that Wi-Fi was not available in all other parts of the building. Judges were also asked about the quality of internet – whether fixed or via Wi-Fi – personally available to them in court. A combined total of 33 of 48 (69%) said it was adequate, good or excellent, while eight (17%) said it was poor, and a further seven (14%) said it did not exist or that they did not know. The overall picture, then, is one of patchy internet access and Wi-Fi availability, particularly in the lower tiers of the court system. The Courts Service has acknowledged this as a priority issue in its ICT Strategy 2021 – 2024.²⁸

Case management systems, or rather the absence of them, was also an issue. Just three of 55 judges (5%) said that they used some version of a 'case management system'.²⁹ A unified case management system is, however, mooted in the Courts Service ICT Strategy 2021 – 2024.³⁰ At a later point in the survey, several judges commented on the absence of such and the benefits that it would bring. On the other hand, judges were broadly positive about the access and quality of legal databases available to them. Of 53 responses to a question seeking the extent of agreement with the statement 'the legal databases I have are appropriate to my needs,' 12 (23%) said they strongly agreed, 25 (47%) said they agreed, 15 (28%) said they were neutral, none said they disagreed, and one (2%) said they strongly disagreed.

²⁷ It is worth emphasising that the UK Judicial Attitudes Survey ran from 27 May 2020 through 22 June 2020, in the immediate aftermath of the outbreak of the COVID-19 pandemic.

²⁸ Courts Service (n 12) 20.

²⁹ The survey instrument defined a case management system as '[a] digital system used by courts to manage the progression of a case or matter after it has been commenced'. Presumably, the three judges that reported that they used one were referring to a specific system that they used in their discrete area of law. No unified case management system exists across the Irish courts system.

³⁰ Courts Service (n 12) 23-9.

Video-conferencing technology and online proceedings

Judges were asked if they had participated in any online remote trials or hearings using video-conferencing technology. Of 54 responses, 49 (91%) said yes, five (9%) said no. Judges were asked to rate the performance of such technology for the purpose of fully or partially remote trials or hearings. The response was relatively positive. Of 54 responses, six (11%) rated performance very well, 16 (30%) well, 25 (46%) average. Only seven (13%) said the technology performed poorly, and no judges said it performed very poorly. A further question on how well online proceedings supports fair outcomes garnered a similar response: of 54 responses, six (11%) said very well, 17 (31%) well, 25 (46%) average, five (9%) poor, one (2%) very poor. That more than half of judge participants indicated that video-conferencing technology was 'average,' 'poor' or 'very poor' in this respect suggests a generally cautious, if not sceptical, view on whether this technology improves the quality of justice.

Overall, judges preferred in-person hearings to online hearings. Of 55 responses, 33 (60%) said that they preferred in-person hearings, 22 (40%) said they preferred a mixture of online and in-person hearings, while no judges preferred online hearings using video-conferencing technology. Comments from judges about their experiences of online remote proceedings using video-conferencing technology were illuminating. Some offered generally negative views, including that they were 'inferior to ... in-person hearings,' 'sub-optimal,' 'very unsatisfactory,' and that they 'have limitations and should be exceptional.' Other judges expressed specific concerns about online proceedings. One judge rather emphatically rejected online proceedings as a 'failure to administer justice in public in any real way,' and that there was an 'over emphasis on efficiency in comparison with other essentials in [the] administration of justice.' Another cautioned that 'the outcome may be fair but the perception of a hearing online is that it is something less than a formal court hearing.' Others suggested that online proceedings were particularly unsuitable for contested issues of fact and that it can be 'very difficult to judge a person's disposition, attitude and mannerisms.'

Several judges commented that the technology's success or failure depended on its reliability and the digital literacy of those participating in online proceedings. Success or otherwise 'depend[s] on the quality of the Wi-Fi available and the technological expertise of the participants,' and the availability of 'a top class remote platform,' according to one judge. Another suggested that 'where there have been difficulties these have tended to relate to connectivity on the part of remote participants.' One referred to 'a lot of breakdowns' during online hearings, while another hinted at a digital divide among different groups in society: 'older litigants and other others have difficulty with the software and are further stressed by the experience.' One judge raised the potential for witness coaching: '[i]t is ... difficult to establish if a person in family law proceedings is alone or whether there is another present and some undue influence or otherwise.' These observations highlight the broad range of issues and challenges that parties and their representatives face, impacting the fairness and efficiency of court proceedings. More positively-disposed judges highlighted how online proceedings were useful or effective for short or procedural hearings that are straightforward and uncontested, for case management, for hearing evidence from an expert witness and, generally, in the area of commercial law.

A later question in the survey asked how concerned judges were about the reduction in face-to-face hearings. The responses tallied with findings from the earlier question discussed above where more judges expressed a preference for in-person hearings than for other modes. Of 47 responses, nine (19%) said they were 'extremely concerned,' 17 (36%) said they were 'somewhat concerned,' eight (17%) said they were 'not sure,' eight (17%) said they

were ‘only slightly concerned,’ and five (11%) said they were ‘not concerned at all.’ Compared to UK judges’ attitudes from the most recent Judicial Attitude Survey in 2020, Irish judges were somewhat less concerned than their UK counterparts were. In Scotland, 26% said they were extremely concerned and 35% said they were somewhat concerned.³¹ In Northern Ireland, 43% were extremely concerned and 37% were somewhat concerned,³² In England and Wales, 44% were extremely concerned and 31% were somewhat concerned.³³ The different timings of data collection for the Irish survey (June to August 2022) and the UK survey (May to June 2020) may be a factor here, with Irish judges reporting with the benefit of more experience of online proceedings throughout the course of the COVID-19 pandemic, compared to UK judges who were surveyed in the immediate aftermath of the pandemic’s outbreak.

The data and commentary highlight the diversity and complexity of views among Irish judges on this issue. What is clear is that there is no appetite for wholesale replacement of in-person hearings with online proceedings. Indeed, it is noteworthy that more participating judges preferred wholly in-person proceedings over a hybrid model mixing online and in-person elements. Overall, participating judges appeared cautious about adopting this technology. Judges’ current perceptions may be coloured by recent and live issues, including judges’ experiences of hurriedly moving to online proceedings at the start of the COVID-19 pandemic and the technical capabilities of the video-conferencing platform currently used by the Courts Service, Pexip.³⁴ The Chief Executive Officer of the Courts Service argues ‘[r]emote courts are the worst they are ever going to be today. They will only improve.’³⁵ Further empirical research may reveal more positive attitudes towards this technology in future if the technology improves and judges become more comfortable using it. Still, the comments excerpted above highlight fundamental concerns about the appropriateness of this approach to many types of hearings which may see judges argue for its use to be restricted to matters of procedure and commercial law, no matter how good it may become.

The judiciary and technology

The survey asked Irish judges for their views on broader themes relating to technology for judiciaries, beyond their personal day-to-day experience of their digital working environment. Questions addressed participants’ perceptions about whether technology may replace judges in the future, what impact technology has on access to justice, whether technology can enable judges to work more effectively, and judicial training on technology.

Judges were asked whether they ‘considered that it was possible some judges might be replaced by technology’ in the next ten, 20 or 30 years in three successive questions. This broadly-framed question aimed to capture judges’ perceptions of changes in the judicial landscape and the prospect of artificial intelligence and related tools infiltrating the judicial role. Of course, AI-based tools are currently being deployed in multiple jurisdictions predominantly to assist in making decisions, although in very limited instances, to supplant

³¹ Cheryl Thomas, 2020 UK *Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Scotland* (n 20) 34.

³² Cheryl Thomas, 2020 UK *Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Northern Ireland* (n 20) 27.

³³ Cheryl Thomas, 2020 UK *Judicial Attitude Survey Report of findings covering salaried judges in England & Wales Courts and UK Tribunals* (n 20) 66.

³⁴ Angela Denning, Chief Executive Officer of the Courts Service remarked on Pexip: ‘[i]t may not be the fanciest but it is free to the user, simple to use for those who are not at ease with technology and it works from any phone or device.’ Angela Denning, ‘The Courts Service’s Modernisation Programme’ (Chief Justice Working Group on Access to Justice Conference 01 and 02 October 2021) 71 <<https://www.courts.ie/news/launch-chief-justices-access-justice-working-group-conference-report>> accessed 23 January 2023.

³⁵ *ibid.*

judicial decision-making by human judges.³⁶ Participant judges mainly pushed back at the suggestion posed by the question. The suggestion that some judges might be replaced in ten years was met with considerable scepticism. Of 52 responses, 46 (88%) said 'no', six (12%) said 'maybe', and none said 'yes'. Extending the prospect to 20 years, there was more acceptance of the possibility: of 51 responses, 32 (63%) said 'no', 16 (31%) said 'maybe', and three (6%) said 'yes'. Extending further to thirty years, still more judges were more accepting. Of 47 responses, 27 (57%) said 'no', 16 (34%) said 'maybe', and four (9%) said 'yes'. These results indicate that judges perceived an increasing likelihood of some judges being replaced by technology over time. However, the widely-held view that their own (or other judges') roles were not under particular threat in the short-to-medium future was perhaps the most significant trend here. Of course, this suite of questions required judges to future gaze through the lens of their own experience on the Irish bench. Circumspection, perhaps even scepticism, emerged – a divergence from the clamour of academic commentary around the rise of 'robot' judges,³⁷ not to mention the actual adoption of AI tools for judicial decision-making in other jurisdictions (particularly in China).³⁸

A related question on judges' perception of whether, and if so, how, AI currently plays a role in Irish court proceedings also provided interesting insights. Judges were asked a nuanced question worth setting out in full:

'To the best of your knowledge, do some decisions that you make involve a review of a decision made by a form of Artificial Intelligence (AI)? For example, where an insurance company has relied on a form of AI to assist it to decide on a claim or in a criminal matter where AI might indicate whether reoffending is more or less likely'.

This question sought to glean judges' knowledge and understanding of whether AI tools directly or indirectly already play a role in court proceedings. This question (like all others in the survey instrument) was drafted to garner insights from judges in various jurisdictions operating in different contexts. To give one common example, in many jurisdictions algorithmic tools are increasingly used by prosecution services to recommend decisions on pre-trial bail applications or sentence lengths in various jurisdictions. As such, this question was broadly framed to capture judges' understanding of the use of AI tools by parties, their representatives, by prosecutorial services or other organisations or state agencies to present information (or propose decisions) to judges. Of 51 responses, two (4%) said 'yes', 38 (75%) said 'no', and 11 (22%) said 'do not know.' Perhaps the most interesting finding here was the sizable minority of judges who acknowledged their own uncertainty around how AI trickles upwards to potentially affect judicial processes. One interpretation is that some judges are

³⁶ See further, Tania Sourdin, *Judges, Technology and Artificial Intelligence: The Artificial Judge* (Edward Elgar Publishing 2021); Rónán Kennedy, 'Will We See 'Robot Judges' in Irish Courtrooms in the Future?' (*RTE Brainstorm*, 22 November 2022) <<https://www.rte.ie/brainstorm/2022/11/18/1337050-law-artificial-intelligence-machine-learning-robot-judges/>> accessed 23 January 2023; Brian M Barry, *How Judges Judge: Empirical Insights Into Judicial Decision-Making* (Informa Law from Routledge 2021) ch 8.

³⁷ For example, Tania Sourdin, 'Judge v. Robot: Artificial Intelligence and Judicial Decision-Making' (2018) 41 *University of New South Wales Law Journal* 1114; John Morison and Adam Harkens, 'Re-Engineering Justice? Robot Judges, Computerised Courts and (Semi) Automated Legal Decision-Making' (2019) 39 *Legal Studies* 618; Jasper Ulenaers, 'The Impact of Artificial Intelligence on the Right to a Fair Trial: Towards a Robot Judge' (2020) 11 *Asian Journal of Law and Economics*; Ray Worthy Campbell, 'Artificial Intelligence in the Courtroom: The Delivery of Justice in the Age of Machine Learning' (2020) 18 *Colorado Technology Law Journal* 323.

³⁸ See Ran Wang, 'Legal Technology in Contemporary USA and China' (2020) 39 *Computer Law and Security Review* 105459 and George G. Zheng, 'China's Grand Design of People's Smart Courts' (2020) *Asian Journal of Law and Society* 1.

broadly aware that AI tools may be at play but that interactions with them, whether direct or indirect, may be unwitting or unbeknownst to judges themselves.

The survey asked judges whether digital technology positively or negatively impacted access to justice in the Irish judicial system. Of course, access to justice is, in its own right, a multi-faceted construct that has evolved over time. Originally, in the narrowest sense, access to justice referred to a citizen's right to litigate in court. However, over time, it has grown in scope to include legal representation for those who cannot afford it, the ability to access information about laws and the legal system, and equality of outcomes among different groups in society.³⁹ Of 53 responses, 43 (81%) said it had a positive impact, two (4%) said it had a negative impact, and eight (15%) said it had no impact. A follow-up question asked judges to identify important factors in their answers. Among the 43 judges who said that digital technology had had a positive impact, the most important factors were the digital literacy of lawyers (39 of 43 respondents, 91%), the ease of court process when used remotely (34 of 43 respondents, 79%), and the availability of internet and audio-visual technology (30 of 43 respondents, 70%). This data suggests that judges perceived lawyers' ability to navigate digital platforms and services competently and users' satisfactory experience of remote court processes as being critical to technology improving access to justice.

When asked to comment on the role technology plays vis-à-vis access to justice, judges identified the provision of legal information online and how online hearings can reduce delays and costs in court proceedings as contributing to improved access to justice. One judge questioned whether the shift towards a more digitised judicial system and, in particular, remote hearings and the shift to information being provided online, may negatively impact access to justice:

‘The move of cases to an online forum has meant that members of the public cannot attend and this alone is an access issue. More information is now available online, about solicitors, about courts and about court hearings. But this ignores that portion of the population with literacy difficulties and less access to the internet’.

This raises two important issues: first, whether a publicly-available live stream of at least some court proceedings ought to be made available to reflect public access to courtrooms in court buildings to satisfy the constitutional requirement of public administration of justice,⁴⁰ and second, to interrogate how legal information is made available and not to assume digital literacy among the public. The 2021 European Commission Digital Economy and Society Index indicated that just 53% of the population have basic digital skills, slightly below the EU average of 56%.⁴¹ A further question about judges' perceptions of whether parties (lawyers and/or litigants) experience difficulties using remote services provided by courts adds weight to these concerns. Of 51 responses, 27 (53%) said parties experience difficulties, while 24 (47%) said they did not. Among those who said that parties experienced difficulties, participant judges said that these primarily related to ‘difficulty accessing technologies to

³⁹ For a brief summary of these developments, see Alberta Civil Liberties Research Centre, ‘What Is Access to Justice? Five Different Ways of Considering Access to Justice’ <<https://www.aclrc.com/what-is-access-to-justice>> accessed 25 August 2021. For an Irish perspective, see Office of the Chief Justice, ‘Chief Justice’s Working Group on Access to Justice Conference Report’ (2022) <<https://www.courts.ie/news/launch-chief-justices-access-justice-working-group-conference-report>>.

⁴⁰ Article 34.1: ‘Justice shall be administered in courts established by law by judges appointed in the manner provided by this Constitution, and, save in such special and limited cases as may be prescribed by law, shall be administered in public.’

⁴¹ European Commission, ‘Digital Economy and Society Index (DESI) 2021’ (European Commission 2021) <<https://digital-strategy.ec.europa.eu/en/policies/desi-ireland>> accessed 3 March 2023.

access court remotely’ and the ‘quality of audio-visual technology’ (as distinct from its actual availability).

Judges were asked whether they considered that technology will enable them to do their work more effectively into the future. Of 55 responses, 37 (67%) said yes, 17 (31%) said maybe, and one (2%) said no. Judges were asked to explain their reasons for their answer, providing interesting insights into perceptions on how technology will continue to shape their role. Many judges offered examples of technologies that could assist in future. As mentioned above, six judges highlighted the need for or benefits of a unified, cloud-based case management system across the judicial system. The Courts Service ICT Strategy 2021 – 2024 has identified moving towards such as platform as an ‘area of focus.’⁴²

Interestingly, four judges highlighted AI tools to enhance, supplement or assist in their role. One judge identified the need for a ‘smart’ system for people who cannot afford lawyers to encourage settlement of actions, rather than going to hearing: ‘AI will have a role to play in the future perhaps in providing the parties with a predictive result of the litigation thus encouraging earlier resolution and saving costs and court time,’ they suggested. Two judges suggested the deployment of tools to assist judges in writing judgments, while another suggested automated decision-making tools could conduct routine tasks and manage administrative functions, commenting:

‘There are judicial tasks which are easy but time-consuming. For such decisions, it makes sense to move to a digital solution. As in the medical field, some decisions are more reliable when made by algorithm. However, ... the perception that justice is being done is very important. And any digital decision-making relies completely on the human who programmed the computer and the information fed into it in order to make that decision. For any but administrative or routine decisions which follow a strict formula, it may be impossible to successfully replace a human decision-maker’.

Other judges were concerned that technology may have paradoxical, adverse effects: rather than enhancing their effectiveness in performing certain tasks, it may compromise their output. One commented that technology ‘has increased expectations re turnover and, in consequence, the work burden. People forget that the rendering of judgment is in part a reflective exercise. There seems to be less and less time for proper reflection, as ever more instantaneous or speedy responses are expected.’ In a similar vein, another reflected: ‘I think the use of technology itself generates additional work which can detract from the core task of the judiciary which is to decide cases as fairly and as quickly as possible.’ These more hesitant observations suggest that, for some, technology for judges is a double-edged sword, perhaps negatively affecting the quality of their output. Others remarked on the importance of consultation in the design and deployment of technology: ‘there must be consultation between the system creators and users for technology to work effectively,’ and hinted that judges’ ability to competently use technology is critical: ‘the master is only as good as his tools springs to mind.’ This latter comment speaks to the importance of training programmes for judges on their digital working environment and new technology tools as they become available, a theme that the survey addressed directly elsewhere. In evaluating judges’ perceptions of training, it is important to reflect on the current and evolving context

⁴² Courts Service, (n 12) 23-9.

of the recent and ongoing development and implementation of various training modules by the Judicial Council's Judicial Studies Committee.⁴³

Judges were asked to express satisfaction with three aspects of judicial training on technology: the extent of judicial training available, the quality of judicial training available and the time available to undertake judicial training. 52 judges responded. As for the *extent* of judicial training related to technology available, four (8%) were 'completely satisfied,' 25 (48%) 'were satisfied,' 21 (40%) said it 'could be better' and two (4%) were 'not satisfied at all.' As for the *time available* to take such training, one (2%) was 'completely satisfied,' 15 (29%) were 'satisfied,' 20 (38%) said it could be better and 16 (31%) were 'not satisfied at all.' As for the *quality* of the training itself, seven (13%) were 'completely satisfied,' 29 (56%) were 'satisfied,' 14 (27%) said it 'could be better' and two (4%) were 'not satisfied at all.'

The dominant concern, then, appeared to be judges' perceived scarcity of time to undertake training in this domain: two-thirds were dissatisfied in this regard – an issue identified in previous research on training for Irish judges.⁴⁴ This perception also corresponds to judicial attitudes expressed in the UK Judicial Attitude Survey from 2020. 51% of Scottish judges,⁴⁵ 66% of Northern Irish judges⁴⁶ and 52% of English and Welsh judges and judges on UK tribunals⁴⁷ said that the time available to undertake training 'could be better' or that they were 'not satisfied at all'. Returning to the Irish survey, somewhat more judges were satisfied with the extent of training than were not, and their view on the quality of the training that they *did* receive was relatively positive: two-thirds were satisfied. Open comments on judicial training on technology often concentrated on a lack of time to avail of training: seven judges commented variously on time constraints compromising, disincentivising or prohibiting participation in training.⁴⁸ Judges were asked to identify which areas they would welcome new judicial training opportunities in. Of the 50 judges who responded to this question, the highest number of responses, 40 (80%), identified 'hands-on training using IT in court.' Notably, the second highest number of responses, 35 (70%), identified 'understanding how newer technologies linked to artificial intelligence (AI) can impact on judicial work.' This perhaps indicates Irish judges appreciated the current and ongoing potential for artificial intelligence to impact on their role. This finding perhaps reflects sentiments from an earlier question where a sizable minority of judges expressed they were uncertain about if, and if so, how artificial intelligence tools were used in Irish court proceedings.

Judges were asked generally about changes to the judiciary in recent years. Just over half of responding judges *disagreed* with the proposition that 'too much change has been imposed on the judiciary in recent years.' Of 50 responses, four (8%) strongly disagreed with this proposition, 22 (44%) disagreed, 13 (26%) said they were not sure, eight (16%) said they agreed and three (6%) said they strongly agreed. There was a high level of agreement with

⁴³ For further information, see <<https://judicialcouncil.ie/judicial-studies-committee/>> accessed 23 January 2023.

⁴⁴ Time, resources and workload have previously been identified by experts and judges as obstacles to judges participating in training. See Laura Cahillane and others, *Towards Best Practice: A Report on the New Judicial Council in Ireland* (Irish Council for Civil Liberties 2022) <<https://www.iccl.ie/wp-content/uploads/2022/02/Towards-Best-Practice-Judicial-Council.pdf>> accessed 23 January 2023, 46–50.

⁴⁵ Cheryl Thomas, 2020 UK *Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Scotland* (n 20) 31.

⁴⁶ Cheryl Thomas, 2020 UK *Judicial Attitude Survey - Report of Findings Covering Salaried Judges in Northern Ireland* (n 20) 24.

⁴⁷ Cheryl Thomas, 2020 UK *Judicial Attitude Survey - Report of Findings Covering Salaried Judges in English and Welsh Courts and UK Tribunals* (n 20) 60.

⁴⁸ These comments mirror observations made by the Judicial Planning Working Group that '[t]he importance of prioritising Court sittings means that training requirements and obligations for judges can often take second place.' Department of Justice, *Report of the Judicial Planning Working Group* (Department of Justice 2022) 120 <<https://www.courts.ie/content/publication-judicial-planning-working-group-report>> accessed 27 February 2023. See Cahillane (n 44) 49–50.

the proposition that ‘more change is still needed in the judiciary.’ Of 50 responses, none strongly disagreed, seven (14%) disagreed, ten (20%) said they were not sure, 23 (46%) agreed, and ten (20%) strongly agreed. There was an even higher level of agreement (perhaps unsurprisingly) with the proposition that ‘the judiciary needs to have control over policy changes that affect judges.’ Of 48 responses, none strongly disagreed, two (4%) disagreed, four (8%) said they were not sure, 17 (36%) said they agreed, and 25 (52%) strongly agreed. There were mixed responses to a question asking about the extent judges felt that their work as a judge had changed since they were first appointed. Nine of 50 respondents (18%) expressed the view that there has been a large amount of change, 22 (44%) said that there had been some change which has affected them, 12 (24%) said it had only changed a very small amount and this does not affect them and seven (14%) said it had not changed at all. Of course, each participant’s individual reflections on this question correlate to some degree with the length of time they have served on the bench. Six of the seven judges who said their work had not changed at all were first appointed to the bench between 2019 and 2022, for instance. Judges strongly agreed that some of the changes as a result of the COVID-19 emergency would remain. Of 50 responses, 38 (76%) agreed or strongly agreed, seven (14%) said they were uncertain, and five (10%) disagreed or strongly disagreed.

On a positive note, a vast majority of judges agreed with the statement, ‘despite any reservations I may have about changes in the judiciary, I still enjoy my work as a judge.’ Of 50 responses, three (6%) strongly disagreed, none disagreed, two (4%) said they were not sure, 16 (32%) agreed, and 29 (58%) strongly agreed.

Judges were invited to provide open comments on changes in the judiciary. One judge opined ‘[t]he tendency in the Irish Courts system has been to be reactive with technological innovation rather than pro-active,’ while another expressed the view ‘judges should all be open to change for [the] public interest.’ When asked how concerned judges were about technological change in the justice system, judges seemed, on the whole, more unconcerned than concerned. Of 45 responses, 16 (35%) said they were ‘not concerned at all,’ 12 (27%) said they were ‘only slightly concerned,’ eight (18%) said they were ‘not sure,’ eight (18%) said they were somewhat concerned while one (2%) said they were ‘extremely’ concerned. Overall, the sentiment expressed on the theme of change in the judiciary suggests that judges have a relatively progressive, even optimistic view of change.

Conclusions

In summary, we see that the use of digital technology by judges is very common. There is general satisfaction with the technology available in chambers, but less so with what is provided in courtrooms. Online hearings function well from a technical perspective but are not entirely popular, and some judges have strongly negative opinions on their continued use. There are limited concerns about judges being replaced by AI in the future. Judges generally enjoy their work and are happy to embrace change, although they would prefer that this was managed with their close consultation.

Before commenting on these results, the limitations of the study must be acknowledged. We should always be cautious about over-extrapolating from statistical data. This survey only achieved approximately one-third participation from judges, which provides broad coverage but not comprehensive, particularly as Supreme Court judges were notably absent. The reporting of judges’ comments here is necessarily selective in order to give a balanced account. In addition, this is a snapshot at a particular point in time; results might be different now and certainly will be in the future. Nonetheless, the survey does highlight some key

issues that deserve further debate. The dissatisfaction expressed regarding remote hearings stems from concerns both about the limits of the technology and the need to respect fundamental principles. The first set of issues might be addressed in time by service providers, but the second is more challenging and is a matter for judges, lawyers and policy-makers rather than technologists. A particularly pressing research question is to identify (by means of surveying users and stakeholders or otherwise) in what types of proceedings – in terms of areas of law and in terms of stages in the court process – online platforms can appropriately and effectively be deployed without compromising natural justice and fair procedures. Despite the widespread use of these as a response to the public health concerns raised by the COVID-19 pandemic, initial indications are that the answer to this question, at least in the opinion of the Irish judiciary, may be quite limited in scope.

The possible usefulness of AI tools requires similar exploration. Although not as salient in the survey, judges nonetheless expressed nuanced views, welcoming some possible applications while pointing to problems that may put other uses out of bounds. As the power and sophistication of AI progress rapidly and there is likely to be external pressure to adopt it more widely in courts (particularly as practitioners do so), the judiciary should engage in a thorough assessment of the capabilities of AI tools to perform judicial tasks and develop a coherent position on where and how they can and cannot be used, before these decisions are made elsewhere.

Another important issue is the continued support provided to the judiciary through the Courts Service and the need to monitor the execution of its ICT strategy. Finally, the satisfaction expressed with the quality of training indicates that the work of the Service and the Judicial Council's Judicial Studies Committee in this regard is very important and should also be subject to review. On the other hand, the dissatisfaction with the time available to attend training highlights that government urgently needs to take steps to address the insufficient resourcing of the judiciary, as Ireland is consistently the EU member state with the lowest number of judges per capita.⁴⁹

Finally, the findings here present further opportunities to better understand how Irish judges and the Irish judicial system use and deploy technologies, and their impact on the delivery of justice. In due course, the results here will be compared to the results of equivalent national studies in several other jurisdictions, providing further context by generating insights into how the Irish judicial system compares internationally. Moreover, given the significant changes proposed by current ICT and related strategies for the Irish judicial system, a follow-up survey some years hence will help to evaluate the success (or otherwise) of those initiatives, as well as longitudinally measure changes in Irish judges' attitudes as technology evolves.

⁴⁹ European Commission for the Efficiency of Justice, *European Judicial Systems Edition 2018: Efficiency and Quality of Justice* (Council of Europe 2018) 106. The report claims (at 107) that '[t]he small number of professional judges per inhabitant in UK-England and Wales (3 per 100 000 inhabitants), as in UK-Scotland and Ireland, is consistently explained by the very high proportion of cases tried by non-professional magistrates'; the confusion regarding the existence of lay magistrates in this jurisdiction further highlights how out of step Ireland is with the rest of the EU. In the 2021 Rule of Law Report from the European Commission, Ireland is criticised as having the lowest number of judges per inhabitant in the EU, and it is noted that this 'could also affect the efficiency of the Irish justice system.' European Commission, *2021 Rule of Law report: Country Chapter on the rule of law situation in Ireland* (Brussels, 20 July 2021) SWD(2021) 715 final <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021SC0715>> accessed 24 January 2023.