



Joining up Justice with Real World Solutions

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Commissioned by The CGI logo, consisting of the letters "CGI" in a bold, red, sans-serif font.

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1. Executive Summary

Rising demand and squeezed budgets over the past decade have left the criminal justice system (CJS) struggling to manage day to day. Changes to address a specific issue in one agency cascade unintentional negative consequences, creating friction elsewhere which slows cases and reduces the likelihood of successful outcomes. Better modelling of the systemic impact of individual agency choices is required to prevent the system lurching with every change.

The lack of a joined up accountability structure severely hinders the efficacy of the CJS as a whole. Whilst individual agencies have a common aim, their objectives and resources are often unaligned or even in direct conflict. This impacts on victims, witnesses, and defendants who experience a highly fragmented, frustrating, and stressful process.

Cooperation is held back by a lack of basic data sharing. Better standardisation and coordination is needed on basics such as data format, transfer, frequency, etc.) and co-design of systems to enable more joined-up working. A duty to share data should be considered as a way to drive greater cooperation across the CJS. Practitioners from across the CJS are clear on what needs to change to make this happen. However, the willingness of agencies to work together is limited - in part because they lack the resources required. There are success stories, but these are typically localised and not embedded.

Yet there is cause for hope. Better use of technology can enable better decision-making and improve efficiency and effectiveness; our recommendations are focused around these objectives. Relatively minor investment would deliver targeted solutions e.g. - digital devices in prisons and courts, redaction tools for police and data sharing agreements. By reducing data entry and data error, these would free up police and prison officer time and remove delays in data sharing across the CJS. However, these require central government to invest in order to realise the systemic benefit they could deliver.

Technology also offers relief to recruitment and morale issues by automating standard processes that are inconsistently applied and time consuming to learn, and by removing the burden on staff often required to work outside their skillset. Agencies should recruit and retain specialist (particularly technical) staff rather than relying on current staff to cover these needs inefficiently.

Longer term, more fundamental, systemic change is required, including a single accountability structure for the entire CJS; a victim/witness-centric design which maximises engagement throughout the process and leads to swift and fair outcomes for all through system-wide case management and data sharing. These longer-term requirements should not stop the government progressing the changes outlined above, and other recommendations which can be implemented immediately at relatively low cost. The greatest risk facing the criminal justice system is inaction.

2. Recommendations¹

1. A NATIONAL DIGITAL FORENSICS CAPABILITY

A national digital forensics capability should be created to pool resources across **police forces** and standardise the way in which digital data is extracted and provided to investigators.

2. GUIDANCE ON DIGITAL TOOLS FOR LAW ENFORCEMENT

The proposed **National Crime Laboratory** should have responsibility for providing guidance to forces and other law enforcement agencies on suitable tools for the analysis of digital data and best practice on how analysis should be conducted to ensure a common baseline for police forces across the country.

3. AN UMBRELLA DATA SHARING AGREEMENT

The **Home Office** and **Crown Prosecution Service (CPS)** should agree a data sharing agreement to cover the transfer of case-relevant information between individual police forces and between the police and CPS.

4. INVEST IN AUTOMATED REDACTION TOOLS

Funding should be made available e.g. through the **Home Office's Science, Technology, and Research (STAR)** funding allocation) to pilot and then scale up machine learning tools that can identify and redact personally identifiable information in digital investigations. These could include text redaction software, facial recognition and redaction software, and consolidated video analysis tools.

5. DATA VALIDATION AUDIT

The **Home Office** and **Ministry of Justice (MoJ)** should conduct an audit, soliciting the suggestions of practitioners across the CJS, to identify which systems would most benefit from data validation tools. Funding should be made available to design and deploy data validation checks for the systems and processes that would most benefit from them

6. DATA SHARING PLATFORM

The **Home Office** and **Ministry of Justice** should commission a CJS information sharing platform that meets the security and usage needs of the system - allowing organisations to easily transfer high volumes of data between users and agencies.

7. AUTOMATED COMMUNICATION SYSTEM

The CJS should invest in an integrated system that can automatically inform service users and partner agencies of changes to cases or when information is updated. This should be designed to meet the needs of an integrated communications strategy across agencies to ensure that CJS users receive a joined-up response.

8. TECHNOLOGY COOPERATION DUTY

The **Government** should create a duty on agencies across the CJS to consult with other agencies and ensure any new or altered systems will efficiently interface with other agencies. An assessment of the positive and negative effects of new technology should be fully understood before new systems are commissioned.

9. PRIMARY CONVENOR FOR CJS INNOVATION

The **Ministry of Justice** should be designated as a primary convenor for the Technology Cooperation Duty and manage a CJS Innovation Fund to catalyse technology innovation and cooperation across the CJS.

10. DECISION-ASSISTING LISTING DATA ANALYSIS

Her Majesty's Courts and Tribunals Service (HMCTS) should prioritise the design and implementation of a decision-aiding tool to create suggested optimal listing structures for the courts.

¹[Appendix 1](#) contains a breakdown of these recommendations measured against the potential impact they would have on improving the efficiency of the CJS, enabling better decision making, and driving better outcomes and compared with the resource requirements necessary to enact them.

11. COURT DIGITAL UPGRADE CONSULTATION

HMCTS should run a consultation exercise with all court staff and users to create a prioritised list of processes and systems that need updating. The prioritisation should be informed by the expected time and resource cost that current inefficiencies and delays are causing across the system.

12. POLICE-PROBATION DATA SPECIFICATION

*The **College of Policing** should carry out consultations with police forces and probation to establish coherent national data specifications that should be imposed across forces for the provision of relevant information to probation.*

13. HANDHELD DATA ENTRY WITHIN PRISONS

Her Majesty's Prison and Probation Service (HMPPS) should immediately scope out the cost and benefits of providing prison officers with handheld devices to allow them to enter information directly into relevant data systems without the need to record all information physically first.

14. INTERNAL PRISON EMAIL SYSTEM

HMPPS should implement a closed email system within each prison, with the capability to transfer information across an air-gapping infrastructure to enable secure digital communication within prisons, between prisons, and with external parties.

15. INTERNAL PRISON NETWORK COST-BENEFIT ANALYSIS

*The **MoJ** should conduct a cost-benefit analysis of the deployment of a closed system within prisons that would provide the necessary training and familiarity to prisoners in order to develop digital skills that would help them gain employment on release.*

16. RESOURCING DEMAND ANALYSIS AND COORDINATION

All agencies should conduct an analysis, in consultation with their workforce, to understand how effectively they are utilising the skills and expertise of their staff, identifying gaps and inefficiencies in deployment and, where feasible, sharing technical skills across the CJS to help create a more digitally joined-up justice system.

17. VICTIM-FOCUSSED SOLUTIONS

All CJS agencies should be required to evidence how their processes, systems, and actions are prioritising the overall objective of the CJS without causing detrimental impact to other parts of the system. This should be a fundamental assessment point for inspections, audits, and other governance and oversight structures.

18. JOINT INSPECTORATE ATTRITION ANALYSIS

*The **criminal justice inspectorates** should conduct a joint analysis of cases across the system to identify the attrition pinch-points that agencies need to remove.*

19. DATA SHARING GUIDANCE AND DUTY TO SHARE

*The government should commission independent guidance from data protection and data sharing experts, in consultation with agencies within the CJS and the **Information Commissioner's Office (ICO)** to define what structures need to be put in place for the sharing of data across the CJS. A Duty to Share data should be legislated to ensure the system can function as a collective whole.*

20. UNIFIED GOVERNANCE STRUCTURE FOR THE CJS

The government should unify the CJS under a common governance structure, ensuring there is accountability for the whole system and ensuring that a consistent strategy is being implemented across agencies to deliver against the objective of the system as a whole.

21. UNIFIED OVERSIGHT STRUCTURE

The government should explore the feasibility and structure of an independent cross-CJS oversight body which would be a 'one-stop-shop' for victims, witnesses, and defendants to engage with. This body should both represent the voice of the CJS service users and work with the CJS inspectorates to ensure agencies across the CJS are held to account and necessary information is being provided by agencies so that independent scrutiny can be conducted.

3. Introducing the CGI and Crest Advisory partnership

Crest Advisory and CGI have conducted this research to identify the pressure points across the criminal justice system (CJS) and their impacts. Our aim is to provide real-world solutions with an emphasis on smarter use of digital technology to reduce the backlog in the courts and deliver a more effective and efficient justice system.

Crest and CGI have previously worked together to equip the civil and criminal justice systems with smarter tools to tackle priority crimes such as domestic abuse. Our report, [Joining the dots: domestic abuse, civil and criminal justice and technology](#) brought together the technical intelligence and public safety expertise of CGI with Crest's deep understanding of criminal justice and was bolstered by evidence, insight, and research undertaken with sector experts. That report put forward solutions to address systemic issues related to domestic abuse and has led to a successful pilot of its recommendations with North Yorkshire Police and the Independent Domestic Abuse Service (IDAS)². This report looks at a greater breadth of issues across the CJS and provides practical recommendations about the use of technology to catalyse change and remove many of the barriers that are preventing victims, witnesses, and defendants from receiving swift and fair justice.

Our aim was to:

- Outline the current situation across the CJS and identify where the blockages and pressure points exist.
- Engage with stakeholders and highlight where they felt technology could provide the greatest benefit, through improving the efficiency of the system, enabling better decision making, or improving outcomes.
- Develop real world solutions in partnership with CJS practitioners, policy-makers, and technical experts, bringing people together to identify the greatest priorities across the CJS.

A more detailed explanation of the methods used is included in Appendix 2. This report draws together the findings of our engagement with stakeholders and experts from across the CJS landscape to deliver recommendations on how digital technology can improve the current functioning of the system. The success of any policy in a given part of the CJS is dependent on the ability of the entire system to adapt to its consequences. As a result we have taken a broad approach, seeking to form an end-to-end understanding of the challenges in order to generate solutions that consider effects across the system and break down, rather than erect, barriers between agencies. Our recommendations throughout this report distinguish between technological solutions that increase efficiency, enable better decision-making, and improve effectiveness.

² [North Yorkshire Police and IDAS, in partnership with HMCTS, Edge Hill University and CGI, lead seminar to address domestic abuse](#)

Efficiency: *Solutions that speed up the CJS by saving time or reducing the workload on practitioners so that more cases can be progressed to a satisfactory conclusion in less time.*

Enabling: *Applications of digital technology that allow practitioners to make better-informed and more confident decisions. For example, these could be to optimise court listing systems, ensure police and Crown Prosecution Service case files are complete and up to date, or ensuring probation services have all the information they need in a timely and consistent manner.*

Effectiveness: *Technological solutions that lead to improved outcomes in terms of harm reduction, crime prevention and public confidence in the system, particularly concerning victim satisfaction.*

The agencies that will benefit the most are those whose leadership are able to look beyond the immediate challenges and prioritise the design and implementation of technological solutions. Throughout this research we have sought to bring together key stakeholders from across the CJS to facilitate the conversations that can help generate the momentum necessary to deliver a fully joined up justice system.

4. The Criminal Justice System landscape

In 2020, Crest detailed³ the system-wide issues that were preventing the criminal justice system (CJS) from providing swift, certain, and fair justice. Police investigations were taking longer than ever and demand was expected to continue to grow. The number of charged cases was expected to increase by more than 70% over five years. The backlog within the courts was predicted to grow substantially. Prison and probation caseloads were also rising rapidly. These issues were further exposed and exacerbated by the Covid-19 pandemic which highlighted an alarming lack of resilience within the criminal justice system (CJS).

To ensure timely and fair justice, the system needs substantial investment. While the timeframes required to recruit people with the required specialist skills and qualifications are long, technological solutions can both improve the effective running of the system as a whole and (at least in some instances) be implemented far faster than the time taken to re-staff. These two strands of personnel and technological resourcing are equally important to the long-term health of the system and the government's ability to deliver efficient and effective justice.

Impact of austerity on the criminal justice system

The CJS suffered disproportionately from public spending cuts in the period of austerity spanning most of the last decade. Both the Ministry of Justice (MoJ) and the Home Office (HO) were unprotected departments with an estimated 24% reduction across the CJS budget in real terms between 2010 and 2019⁴. A real term cut of 22% to central government funding for police led to a significant drop in the number of police officers across the country and the closure of over 600 police stations⁵. The Crown Prosecution Service (CPS) saw a real-terms 33% decline in funding from 2010/11 to 2019. The picture is similar in the courts, where 162 magistrates courts and 8 crown courts were closed from 2010 to 2019⁶.

Similarly, restrictions on the number of court sitting days over this period (implemented to save money) have reduced the courts capacity to work through cases. This has led to foreseeable delays caused by any unexpected circumstance (such a case taking longer than anticipated) which the system has no capacity to absorb - leading to further disruption for all following cases. The focus on maximising court usage rather than satisfaction of court users (particularly victims, witnesses, and defendants) demonstrates the need for the system to adopt a more strategic perspective that accepts some localised inefficiencies (such as allowing more time for cases) to

³ [Covell and Desroches \(2020\) Swift, Certain and Fair Justice: Lifting the barriers to reform](#)

⁴ [Chalkey and Chalkey \(2020\) Small change for Justice: Funding for justice in England and Wales. Bar Council](#)

⁵ [Ungoed-Thomas, Harper, and Shveda \(2018\) 600 police stations shut in eight years](#)

⁶ [Cowie and Sturge \(2019\) Court Closures and Access to Justice, House of Commons Library](#)

ensure the end-to-end process for victims, witnesses, and defendants is less distressing and their willingness to participate does not further diminish.

“If you want to build in some slack you've got to say to yourself, ‘well, the worst thing in the world isn't if the court is left with no work to do.’”

- Legal representative

By the end of 2019, before the Covid-19 pandemic caused systemic challenges across public and private services, every agency of the CJS was already struggling to cope with demand. From 2012 to 2019, police recorded crime was up 49%⁷. Case numbers had increased by 48% in the courts, increasing the time from offence to completion in the Magistrates Courts by 24% and the Crown Courts by 31%⁸. In short, the CJS was already stretched thin.

These cuts significantly reduced capacity across the CJS precisely when the demand on the system was increasing⁹. Years of underfunding hollowed out CJS agencies, with experienced staff leaving, investment being stripped back and morale dropping¹⁰.

Steps have been taken to try to address this situation: the police are heavily recruiting through the police uplift programme to recover some of the resourcing lost over the past decade; the CPS saw an increase in funding¹¹ of £85 million for 2019/20 and 2020/21 but this still left it about £250 million below 2010/11 funding levels¹²; court sitting days were extended in order to provide more opportunity to reduce the backlog (but this neglects the need for more personnel to manage the courts). The Common Platform case management system is currently being rolled out and intended to help users manage and share criminal case information more effectively but only covers the courts. These steps have lacked the whole-system approach required to truly overcome the challenge.

Surviving the Covid-19 pandemic

When the pandemic struck the CJS was already in a precarious position and did not have the resources or resilience to adapt quickly. An illustrative example came from barristers who, when the government was advising the public to wash their hands regularly, reported that they often did not have access to running water in their courts.

⁷ [Police recorded crime Police Force Area open data tables](#), year ending March 2013 onwards; updated 28th April 2022, Home Office. Based on 2012-2019 data due to changes in recording practice.

⁸ [Criminal Court Statistics Quarterly: October to December 2019](#)

⁹ [Desroches et al. \(2021\) Survive. Recover. Rebuild. Justice post Covid-19. Crest Advisory](#)

¹⁰ [Pay and morale survey 2021, Police Federation](#)

¹¹ [Law and order: Extra £85m for CPS to tackle violent crime](#)

¹² [Extra funding for CPS comes after long-term cuts](#)

Our research into the impact of the pandemic¹³ found that innovative programmes were being shelved, agencies felt there was a lack of national direction, and that CJS agencies entered into “survival mode” to keep the system functioning. However, in doing so they retreated into silos. That research did find examples of local innovation though, with devolved authorities investing in one-off services such as local domestic abuse services, and setting up pan-agency boards to deal with operational and strategic issues during lockdown. The successes were enabled by pre-existing good relationships and governance, a clear understanding by partners of interdependence across the system, and a clear grasp of the data.

Recent injections of funding

The trend towards decreased funding has been reversed in recent years, as the government has sought to redirect money towards the CJS to stave off the worst issues. In October 2019 the government began the Police Uplift Programme to increase overall police numbers by 20,000 officers at the expected cost of £3.6 billion. At their peak in September 2021, figures from the Crown Courts, the worst affected of the two court systems, showed that there were 60,692 cases waiting to be heard, an increase of more than 20,000 cases on pre-pandemic levels¹⁴. In the spending review in October 2021, £2.2 billion was allocated to aiding the recovery from Covid-19 in the courts, prisons, and probation services.

Whilst this immediate cash injection is helpful and can be used to increase the available resources, the problems the system is facing are deep-set and will not be resolved in the short term. Modelling conducted earlier in the pandemic¹⁵ suggested an additional £1.5 billion would be necessary (on top of the £3.6 billion) to meet the expected demand. This will require significant and widespread increases in capacity in every area of the CJS, and these changes take time to implement.

Beyond the immediate friction caused by a sharp change in funding trajectory - which requires organisations to adapt their plans to account for the expected impacts the change will have on them - these recent injections of funding do not take account of the interdependence of the different parts of the system. In our 2021 report, we stressed how the addition of 20,000 officers to police forces across the country would inevitably lead to increased demand on prison and probation services. The government has since acknowledged this by pledging to fund a further 18,000 prison places. Given the interdependence of parts of the system, there are limits to what even a systemic approach to improving the CJS can achieve in the short and medium term. A haphazard approach, with uncoordinated bursts of funding based on immediate demands, risks overlooking systemic realities.

¹³ [Desroches et al. \(2021\) Survive. Recover. Rebuild. Justice post Covid-19, Crest Advisory](#)

¹⁴ [Criminal court statistics - quarterly data](#)

¹⁵ <https://www.crestadvisory.com/post/survive-recover-rebuild-justice-post-covid>

For example, there are a limited number of qualified criminal legal professionals available to all parts of the system and it will take long-term investment and focus to increase this pool to a level that can manage the through-put of the system.

“The system's only going to work as fast as its slowest part.”
- Legal representative

A Criminal Justice Joint Inspection report in February 2022¹⁶ highlighted that:

- It took an average of 218 days of investigation before a police case was sent to CPS for a charging decision;
- It took more than double that before the case then reached court;
- Trial dates postponed at least once in almost 60% of cases.

These timeframes and delays cause significant distress to victims and jeopardise the system’s ability to reach a fair and satisfactory outcome for all users. Investment in technology offers a more immediate route to making processes more efficient, enabling better decision making and delivering better outcomes to reduce the stress experienced by victims as well as people working in the system.

The role of technology in the CJS

In approaching the role of technology in the CJS it is important to acknowledge that these long term budgetary pressures have constrained agencies’ ability to invest in their technological capabilities. Previous Crest research has highlighted that when agencies were losing significant numbers of staff they struggled to invest in new technological capabilities, but this came at a time of growing technological complexity in investigating and prosecuting crimes (Redgrave, 2021).

Nevertheless, the urgency of the pandemic catalysed agencies into finding ways to continue their work while balancing the risks related to in-person interaction. These included greater use of phone and video calls to take witness statements, the introduction of Her Majesty’s Courts and Tribunals Service (HMCTS) video hearing platform and the option for prisoners to have video calls rather than in-person visits. Stakeholders highlighted to us how the need for a better understanding of the cases entering the system led agencies like the CPS and HMCTS to produce joint performance data so that they could better understand the demand on their organisations.

This swift adoption of new technology has not been without issues. The rollout of video calling in prisons was slow, the lack of a consistent video conferencing platform across police forces made communication more difficult than it should have been, and nearly half of children under youth offending supervision did not have regular or reliable internet access during the pandemic¹⁷.

¹⁶ [Impact if the Pandemic on the Criminal Justice System, 2021, CJI](#)

¹⁷ [Impact if the Pandemic on the Criminal Justice System, 2021, CJI](#)

However, the pandemic has illustrated that when the desire and necessity for change exists agencies across the CJS can adapt rapidly. This should be a cause for optimism that further swift and successful adaptations to existing practices and policies are possible.

Technological solutions across the system

The rest of this report charts the flow of cases across the system - from detection and investigation through to sentencing and rehabilitation - and explores the challenges and possible solutions that have been raised either publicly or through our engagement with stakeholders from across the system. This is followed by a look at systemic changes that need to be made to facilitate the adoption of more efficient systems and processes. The report concludes with a prioritised set of recommendations and a look towards a more joined up justice system.

5. Detection and investigation

Greater demand with fewer resources

The longest delays in the progress of cases through the system occur between an offence taking place and a charging decision being made (Figure 3.1), and previous research by both Crest¹⁸ and the Police Foundation¹⁹ has found that the police are struggling to investigate increasingly complex and digitally evidenced crimes. At the same time there is a significant and growing shortfall in qualified detectives across the country, which has now reached nearly 7,000 vacancies. The detectives who are in place are generally less experienced than the cohort of a decade ago and face much higher case loads.

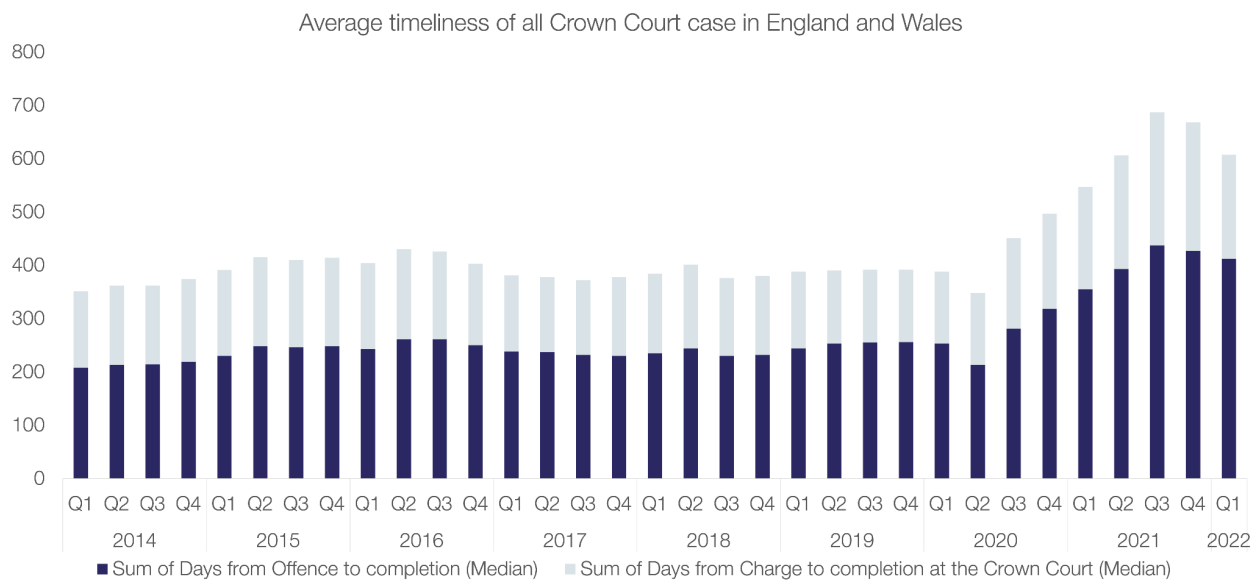


Fig. 3.1: Average timeliness of all Crown Court Cases in England and Wales (2014-2022), source: Criminal Courts Statistics Quarterly, Ministry of Justice.

These factors contribute to the friction that exists between police and Crown Prosecution Service (CPS) over the quality of case files and leads to cases being passed back and forth between the two agencies. A Criminal Justice Joint Inspection Report²⁰ into the police and the CPS response to rape indicated that there had been a decline in the quality of case files passed from police to CPS and that the CPS had at times been too risk-averse, sending cases back to the police for minimal administrative or procedural issues.

¹⁸ [Redgrace. \(2021\) Justice Denied: How the Government Can Change Its Approach to Catching and Convicting Offenders](#)

¹⁹ [Police Foundation \(2022\) Strategic Review of Policing in England and Wales](#)

²⁰ [Impact if the Pandemic on the Criminal Justice System, 2022, CJI](#)

There is a clear need to address the shortfall in detectives, however it will take time for this to translate into greater capacity and longer still for new detectives to gain the experience that has been lost due to cuts through austerity. Technological solutions and data governance reform could drive much faster efficiency improvements which will in turn reduce the burden on detectives and give them the tools to conduct better investigations.

Digital investigations

The proliferation of digital technology in society has dramatically increased the volume of digital evidence that the police must handle in their investigations. However, digital forensics capacity and capability has not kept pace with this change and is highly fragmented. Cases which involve the analysis of a digital device are often significantly delayed because of a lack of capacity in digital forensics departments. This is driven by increasing demand for digital forensic analysis, increasing complexity, and the way digital forensic services have grown, often outside of police force ICT departments and operating in relative isolation²¹. Some practitioners expressed a concern that these delays had become so frequent and widespread that they were viewed as inevitable.

“It feels like it's almost been normalised that there's quite a long delay [with digital evidence].”

- Policing stakeholder

While investigation timelines are substantially extended if digital forensic analysis is required, there are also significant disparities between forces because independent procurement policies have led to differing capabilities.

“Technology is inconsistently used across different forces, what is done in one force might be completely different to what is done in another force. Someone will have bought something more advanced, so they'll be able to do more things.”

- Justice policy expert

The current system is fragmented and represents postcode lottery for victims, whereby the location you are victimised (or the location of the offender) is likely to significantly impact on the effectiveness of the digital investigation. What is necessary is a national digital forensics capability that can more effectively manage and distribute the demand across England and Wales and ensure that digital forensic evidence is processed in a consistent and timely manner. The rapid evolution of technology provides an even stronger rationale for this approach, which would allow new challenges within digital forensics to be quickly identified and solutions to these challenges rolled out across all digital investigations as quickly as possible. A centralised approach would provide a much more efficient distribution of resources across police forces whose needs will fluctuate greatly

²¹ Digital Forensic Science Strategy 2020

depending on specific investigations. Given the proximity of the remit, this digital forensics lab may be best situated within the National Crime Laboratory that was proposed with the Conservative 2019 election manifesto. There exists a clear opportunity to improve consistency and efficiency through a more standardised approach to digital forensics.

RECOMMENDATION

A NATIONAL DIGITAL FORENSICS CAPABILITY

A national digital forensics capability should be created to pool resources across forces and standardise the way in which digital data is extracted and provided to investigators.

The process of analysing digital material across police forces is still largely manual. Investigators scour devices for links and communications between individuals through a manual review of information recovered from devices. Given the volume of data that is contained on any modern device, this limited capability places a heavy burden on digital investigators in every case and increases the likelihood of error or that important information is missed due to insufficient time for detectives to run comprehensive checks.

“There's very little automation or AI assistance or support or tooling to help an investigator interpret large volumes of data and understand the picture of what's happened.”

- Policing stakeholder

Due to its repetitive and high-volume nature, this is a task that is well suited to automation through machine learning software. There are efforts underway through the Police Digital Service to understand how to design the most useful tools for digital investigators, but these tools do not appear to be developed enough that they will be deployed at scale in the near future.

RECOMMENDATION

GUIDANCE ON DIGITAL TOOLS FOR LAW ENFORCEMENT

The proposed National Crime Laboratory should have responsibility for providing guidance to forces and other law enforcement agencies on suitable tools for the analysis of digital data and best practice on how analysis should be conducted to ensure a common baseline for police forces across the country.

Disclosure and redaction

The enormous volume of digital evidence now dealt with in criminal cases presents an additional challenge for investigators in terms of disclosure practices and the redaction of personally identifiable information before it is passed to the CPS. In their own ways, each represents an information management challenge as police are now faced with a far higher volume of evidence that must be sifted, categorised, and cleared of any information that can not be revealed in open court.

“The amount of material that's now collected in a digital evidence investigation... you have to schedule and redact all information before the case goes to the CPS and that puts huge delays into it because again, that's often a manual process for things like video.”

- Policing stakeholder

Disclosure refers to the requirement that defence counsels have access to all evidence gathered by police so that they can build their case. To fulfil their disclosure obligations, police must analyse all the evidence in a case and catalogue it so that it can be viewed by the defence. This process had already become onerous with the increasing volumes of digital evidence but it was further lengthened by new guidance issued after the Allen case. Allan was accused of rape and sexual assault and his defence was that any sexual contact with the complainant was consensual. Despite repeated requests that messages between the two parties be disclosed, it was not until more than two years later, once the trial had begun, that the material was produced. It vindicated Allen's account and the case was dropped as soon as the prosecuting barrister became aware of it. The case and subsequent review led to the adoption of guidance that requires more stringent disclosure checks before a charge can be made. The practitioners we spoke to agreed that the greater attention being paid to disclosure practices ensures confidence in the justice process but police colleagues made clear that this new guidance had significantly increased their workload.

“Anecdotally, we've been told that the changes [to disclosure guidance] now add anywhere between four and twelve hours of Officer time to an investigation.”

- Policing stakeholder

The increase in the volume of digital evidence has also placed additional pressure on detectives to redact ever-greater volumes of personally identifiable information (PII) before it can be transferred to the CPS. PII that needs to be redacted can include people's faces within images and videos, phone numbers within digital communications, or addresses that cannot be shown in open court. The police are responsible for redacting this information and currently this process has to take place before a case is sent to the CPS for a charging decision. Again, this task requires substantial manual effort and the police systems used to review and redact information are highly fragmented across forces and between sources of data; for example, different software for viewing different types of video (e.g CCTV, body camera, etc.). The latest CPS performance data shows that 76% of suspects (30,722) were charged (out of all legal decisions) for the third quarter of 2021/22. This means that there were nearly 10,000 cases during this period that had gone through the laborious effort of redaction for no benefit. Taking a conservative estimate²² of half a day per case this equates to 5,000 days of officer time or the equivalent of 77 officers working full time redacting information for cases that will never be charged.

²² Based on conversations held with individuals as part of this research as well as our wider policing demand modelling.

The need to redact data in advance of a charging decision creates the potential for significant wasted effort from police in the event of the CPS taking no further action. Interviewees from across policing, the CPS, and legal representatives supported the introduction of a data sharing agreement to cover all 43 police forces and the CPS at a national level, which would allow police forces to share the details of a case with the CPS in advance of redaction so that they could get a decision before going through the redaction process. The specification of the data sharing agreement would also provide consistency for the format and structure of the information being shared and aid greater data interoperability.

“There should be a data sharing agreement between the police forces across the country, 43 police forces, and the CPS, so that the information goes over and you get the charges done, get on it straightaway.”

- Policing stakeholder

“There needs to be improvement on how [the police and CPS] communicate and share information”

- Justice policy expert

RECOMMENDATION

UMBRELLA DATA SHARING AGREEMENT

The Home Office and CPS should agree a data sharing agreement to cover the transfer of case-relevant information between individual police forces and between the police and CPS.

When redaction is needed, police forces should look to automate the process and release the much-needed personnel. Recent advances in Natural Language Processing, which uses machine learning to analyse and understand speech and text, would provide substantial time-savings for the redaction process, even if the outputs had to be comprehensively verified by a person. There are already tools available, developed in cooperation with police forces, that can review text and redact information that could identify an individual. This is not just limited to identifying names but also dates, locations, and other potentially identifying information. Equally, facial recognition technology is so widespread today that many phones can allow access based on it. This same technology could be used in the redaction of video footage for use in court. Police forces could consolidate their video analysis software into a single application, rather than forcing investigators to work across multiple systems.

“When we are typing up those statements, you know, getting a bit that pops up on the computer to say, 'this looks like a phone number. Are you sure this should be in that statement?’”

- Policing stakeholder

Redaction technology would provide efficiency gains for detectives by reducing time taken in preparing case files for a charging decision and represents a practical solution to improving the timeliness of investigations and bring down the time from report to charge. This solution is highly feasible as this technology is already in existence and could be adapted to police purposes without requiring significant investment.

RECOMMENDATION

INVEST IN AUTOMATED REDACTION TOOLS

Funding should be made available (for example through the police STAR funding allocation) to pilot and then scale up machine learning tools that can identify and redact personally identifiable information in digital investigations. These could include text redaction software, facial recognition and redaction software, and consolidated video analysis tools.

6. Charge and prosecution

Case file quality

As discussed in the previous section, there is evidence that the quality of case files being transferred between the police and Crown Prosecution Service (CPS) has fallen in recent years, specifically in terms of adhering to the existing guidelines and fulfilling all requirements for a charging decision to be made. Practitioners we spoke to suggested that this is related to a number of factors:

- The relative inexperience of many detectives was believed to be a factor - leading to a lack of understanding among some of exactly what needs to be included in a case file.
- High caseloads were believed to limit the amount of time detectives could spend on any individual file, leading to errors or omissions.
- In some instances, a lack of clarity from the CPS side as to what is required was a factor.
- Relatedly, there could be inconsistency in what was asked for by the CPS in different regions and by different prosecutors.
- Some practitioners believed this was further complicated by the fact that police forces areas and CPS regions did not align which makes it more difficult for prosecutors and detectives to build a working relationship.

These factors combined lead to a general lack of consistency, reduce the quality of case files, and ultimately cause delays as a case is transferred back and forth between police and CPS over a range of evidential and administrative issues.

“There absolutely is an element of officers not having the knowledge or confidence in terms of what they should and shouldn't send and should or shouldn't do, and actually some inconsistency with CPS in terms of what they're asking for.”

- Policing stakeholder

“It's just very hard to have a relationship with a prosecutor who you can't easily get a hold of and have a relationship with.”

- Justice policy expert

Many systems have automated checking built in to support a user to achieve their objective. For example, email systems will now flag to the user if the word “attached” is used in an email but no attachment is found. Browsers can automatically fill in details you have previously stored or nudge you if you haven't completed all necessary fields. Police systems, including digital case file, would greatly benefit from similar tools and nudged being implemented. Digital case file systems in particular should seek to include features that help users create high quality case files and reduce the time it takes to do so.

An improved digital case file system for police is currently under development with the Police Digital Service and is due to be piloted in Gwent and South Wales in 2023. This provides an opportunity to address some of these issues through the smarter use of technology and improve the quality of case files transferred to the CPS, but such improvements have much wider scope for implementation across policing databases, court listing and case management, probation, and prison databases to name a few.

To be successful, these initiatives need to take a whole-system approach to design and implementation with a strong emphasis on user experience. Practitioners we spoke to discussed several cases of technology projects in one agency that were introduced with little or no consultation or consideration to the effect the implementation might have on the rest of the system. Recognising that each part of the CJS must by definition effectively communicate information on to the next stage of the process, it becomes clear that for any technological system in the CJS to be effective it must be informed by consultation across the system. At the most basic level, information should be passed in an agreed format and structure and simple data validation tools could be implemented to help with this.

“The system's really, really clunky, and... even the digital aspect of it is old. And as everything else is changed around investigations, in terms of our responsibilities in terms of the amount of digital evidence, the data protection responsibilities, etc. the systems haven't adapted at the same time.”
- Policing stakeholder

There are numerous systems being used across the CJS and a key step to improving the data quality and validation across the system is first to understand which systems and processes would most benefit from these improvements. By focussing on the systems which currently cause the greatest delays due to data validation gaps, the system as a whole can be made more efficient and effective.

RECOMMENDATION DATA VALIDATION AUDIT

The Home Office and MoJ should conduct an audit, soliciting the suggestions of practitioners across the CJS, to identify which systems would most benefit from data validation tools. Funding should be made available to design and deploy data validation checks for the systems and processes that would most benefit from them

Data transfer

The digital case file should also seek to address logistical challenges related to data transfer between the police and the CPS, which our research suggests is still causing issues for officers and prosecutors alike. Despite the substantial increase in the level of digital evidence involved in cases

today, we heard that the technology for transferring data between the police and the CPS is significantly out of date and unable to handle the amount of data that is required. The Two Way Interface software that is currently used by police to send digital files to the CPS is unreliable and regularly malfunctions. Delays and disruptions prevent practitioners from progressing cases. In addition, police officers are forced to transfer the files on harddrives or in physical copies due to data restrictions which prevent the transfer of larger files.

“Every time the system goes down, then that just stops that process, it's like a factory, the minute the machine stops, then everything else is just backed up waiting for the machine to whirl back up again. And it happens regularly.”

- Policing stakeholder

“You're still in the realm of people posting each other CD ROMs.”

- Justice policy expert

There is significant potential to reduce delays through the implementation of an information transfer system that is fit for the 21st century. The need to transfer large volumes of information has surpassed the requirements that current systems (such as CJSM) were designed for and a consistent approach to data sharing infrastructure would drive efficiency across the CJS.

RECOMMENDATION

DATA SHARING PLATFORM

The Home Office and MoJ should commission a CJS information sharing platform that meets the security and usage needs of the system - allowing organisations to easily transfer high volumes of data between users and agencies.

Avoiding case drift

The point at which a charging decision is made represents a critical moment to support victim engagement and satisfaction with the criminal justice process. As highlighted in our recently published Victims' Strategic Needs Assessment for the CPS²³, it is a point at which victims need to be reassured of what is happening to maintain engagement. The CPS has acknowledged that improvements can be made to the process of how they communicate with victims, with particular regard to timeliness and frequency, alongside consideration to updating the methods of communication utilised.

²³ [A victims' strategic needs assessment for the Crown Prosecution Service](#)

“We've got victims waiting 18 months, and they still haven't got a charge on their case. So that's a long time to be in a system with very little information and very little mechanisms in place to kind of get regular updates and meaningful updates as well.”

- Justice policy expert

Improving communication with all service users is important to ensuring victims remain engaged and practitioners are kept up to date with a case's progression. Supporting a greater number of victims and witnesses to stay with the process ensures that resources aren't wasted on preparing cases that will never reach a satisfactory outcome and ensures justice is reached in as timely a fashion as possible.

“There's this sort of back and forth all the time and what we had in the middle was a victim sitting for 18 months, two years, with a case not moving, and no one gripping it.”

- Justice policy expert

Automated update systems are in common use across a wide range of businesses, with online store delivery tracking systems being a well known example. Text or email based updates based on milestones or changes should be a relatively feasible improvement to user experience and engagement.

"The minute we send the case to CPS, why isn't our system automatically emailing a victim to say, your crime has been sent to CPS for review?"

- Policing stakeholder

RECOMMENDATION

AUTOMATED COMMUNICATION SYSTEM

The CJS should invest in an integrated system that can automatically inform service users and partner agencies of changes to cases or when information is updated. This should be designed to meet the needs of an integrated communications strategy across agencies to ensure that CJS users receive a joined-up response.

7. Hearing and trial

Poor understanding of demand

A 2021 NAO report found that the backlog in the Crown Courts increased by 23% in the year leading up to the pandemic, as the Ministry of Justice allocated 16% fewer sitting days on the basis of an analysis that projected continued decline in demand. This decision was taken in order to deliver savings in legal aid costs despite acknowledging that the police uplift programme would likely lead to a long term increase in demand (NAO, 2021). The NAO report highlighted that “long standing data limitations obscure the Ministry and HMCTS’s understanding of future demand”, and a subsequent House of Commons Public Accounts Committee report repeated this concern.

In its response to the questions from the committee HMCTS stated that its new digital case management system, the Common Platform, would fill these gaps in data collection - a point of view shared by those HMCTS stakeholders we spoke to. We also heard about how ambitions for the Common Platform had originally included consolidating the case management system across CPS and HMCTS, which would have represented a far greater integration of systems and reduced replication across that part of the system. That Common Platform is only being implemented for HMCTS demonstrates the difficulty in building cross-agency technical capabilities that we heard about from different practitioners.

“To negotiate transformation in the CJS is a huge stakeholder management and governance challenge, which is why things take a long time and happen very slowly.”
- Policing stakeholder

Practitioners described the stakeholder management problems they faced in trying to rally partners to undertake common technology projects that might improve their joint capabilities. There were also evident regional disparities in cooperation with some stakeholders struggling to convince agencies to engage while others described effective partnerships that solve issues together to improve the system. The processes across the CJS need to be improved in order to reduce this reliance on individual relationships between senior stakeholders.

“The particular pressure points in the criminal courts are exacerbated by the fact that it's a system that relies on being integrated with lots of other agencies... it has meant that you've got a patchwork quilt of, of basic inefficiencies and under resourcing that has meant that the whole system is creaking.”
- Legal representative

To address similar issues, the government has created statutory duties on agencies to cooperate, with relative success. For example the “Working Together to Safeguard Children” statutory

framework has helped to promote cooperation between local authorities and partner agencies to safeguard children. The Serious Violence Duty, which will receive royal assent this summer, takes a similar approach to the problem of Serious Violence. In order to stimulate a similar level of cooperation around the issue of technological capabilities, the government should introduce a Technology Cooperation Duty that places a statutory requirement on agencies to consult and take account of the needs of other agencies that will be required to use any new system or whom it might impact. This approach would acknowledge the cross-system nature of technology in the CJS, which will be unable to overcome this challenge without greater inter-agency cooperation.

**RECOMMENDATION
TECHNOLOGY COOPERATION DUTY**

The Government should create a duty on agencies across the CJS to consult with other agencies and ensure any new or altered systems will efficiently interface with other agencies. An assessment of the positive and negative effects of new technology should be fully understood before new systems are commissioned.

Other duties also name a central agency that should be the focal point for cooperation in their respective areas, such as local authorities in the case of child safeguard. In the context of technology development, where economies of scale play a significant role and in general local needs are largely comparable, this role should lie with central government. Given it sits across the greatest number of agencies, the Ministry of Justice should exercise the role of primary convenor in this arena. It would have the greatest read across on the differing data practices and technological capabilities in different parts of the CJS. Through strong cooperation with police, especially via the NPCC and College of Policing, the Ministry of Justice could provide the catalyst for greater standardisation of practices and could drive inter-agency and even system wide reform. In a similar fashion to the Home Office's Police Transformation Fund, the Ministry of Justice could provide an incentive for agencies to work together on technology projects through a CJS Innovation Fund. The criteria for funding should include a requirement for at least two CJS partners to take part and that the project addresses a problem that could be rolled out nationally. This would be ideally positioned to support a wide range of stakeholders, but particularly Police and Crime Commissioners who are highly attuned to the needs of their area and usually chair the Local Criminal Justice Board which is intended to bring together criminal justice organisations to support joint working and improve services. Such a fund would help drive improvements at a local level as well as being open to broader innovation.

**RECOMMENDATION
PRIMARY CONVENOR FOR CJS INNOVATION**

The Ministry of Justice should be designated as a primary convenor for the Technology Cooperation Duty and manage a CJS Innovation Fund to catalyse technology innovation and cooperation across the CJS.

Court case listing challenges

In a similar demand-management challenge, the court listings system was a persistent reference by stakeholders as a system in need of a technological solution. There is substantial frustration among court users regarding how case listings are decided. While the Crown Court manual lays out the principles that should be considered in this process, including that they should ensure “the timely trial of cases so that justice is not delayed”, inconsistency in their application and a lack of consideration beyond the immediate availability of the court emerged as an issue among practitioners. There exist specialist court sittings to manage, for example, domestic abuse related cases, but greater exploitation of the data available could provide substantially more efficient use of the court system. For example, machine learning processes and basic data availability could be used to better understand at a case level:

- The expected length of time it might need,
- The current timeliness of the case and estimated impact on victims, witnesses, and defendants,
- The impact of a delay on the likelihood the case would fail,
- Availability of staff and court users.

Providing better information to court staff would help court staff make better-informed decisions about which cases to list when. There is considerable opportunity to improve the efficiency of the CJS through an improved, data-informed decision process for listings.

RECOMMENDATION

DECISION-ASSISTING LISTING DATA ANALYSIS

HMCTS should prioritise the design and implementation of a decision-aiding tool to create suggested optimal listing structures for the courts.

Embracing a more digitally-enabled courtroom

Our discussions with practitioners confirmed what has been reported previously; that the technology that is in use throughout the court estate is largely out of date and prone to failure. A survey conducted on behalf of the Bar Council found that by far the most significant issue in courts faced by barristers was technical issues relating to video hearings, 78% of those who report problems experienced this problem. It also found that criminal barristers were more likely to report this issue than other legal professionals. This finding was echoed in our research, where court users consistently raised the reliability of courtroom technology as a significant issue. While technical difficulties were a natural consequence of the rapid deployment of new technologies, it is clear that the courts have faced particular challenges in adapting to this new reality.

“The screens they've got, the computer systems they use, the Common Platform, everything goes wrong.”

- Policing stakeholder

“Whatever we get designed for us... is very, very basic tech. And it just goes wrong very, very easily, and then you can't use it. And, yeah, it's a bit of a nightmare.”

- Legal representative

These sometimes-minor issues have tangible and cumulative effects on the working conditions of those who operate and work in the courts and ultimately on the timeliness and outcome of cases. In magistrates' courts the cuts to administrative and technical support staff in courts mean that the burden often falls on legal advisors to remedy technical failures when they occur. Not only does this slow down the process of restarting systems due to legal advisors lacking proper training to do so, it is also an inefficient use of their time. Constrained budgets and challenging conditions are leading to many court staff, including legal advisors, leaving their positions, leaving even fewer people who are able to operate the courts.

“Qualified lawyers... are now going to work for CPS or they're going to work in some other form of law... divorce law... conveyancing, whatever, [rather] than staying in criminal law, because it's painful, it's underfunded, and it's just not where they want to be. So the lack of criminal legal advisors is a big issue.”

- Policing stakeholder

There is a need for wide ranging consultation across the courts estate to better understand which systems are having the most significant impact on the effective running of the courts and prioritise the most impactful systems that need updating. This would also provide an opportunity for the government to innovate and introduce new technology that would improve efficiency and court user experience. For example, one stakeholder described a pilot programme that provided jury packs on tablet computers rather than paper bundles. This reduced the need to print, disseminate, and update information in physical form, allowed for more efficient updates to be provided to jurors and other court users, and streamlined the case. In complex trials with large amounts of documentation, the use of tablet computers would significantly lighten the workload for those managing and reading jury packs while also providing greater flexibility in the event of a change to the packs.

RECOMMENDATION

COURT DIGITAL UPGRADE CONSULTATION

HMCTS should run a consultation exercise with all court staff and users to create a prioritised list of processes and systems that need updating. The prioritisation should be informed by the expected time and resource cost that current inefficiencies and delays are causing across the system.

8. Sentencing and rehabilitation

Towards more consistent information sharing policies

Our research showed that fragmented information sharing platforms and policies between police forces and regional probation services undermine probation officers' ability to make accurate and timely assessments on pre-sentencing reports and rehabilitation. When researching an individual's history of interactions with the police, probation officers must place enquiries with each individual police force where they have resided or are known to have offended. Facing high caseloads and understaffing, this additional burden of repeated enquiries across multiple forces is a drag on efficiency for these practitioners. While some offences have national databases that contain information on offenders, such as ViSOR for violent and sexual offences, access to these is limited and they only represent a small proportion of cases. In addition, individual police forces set different policies around what information can be shared, when and in what circumstances. This significantly limits the information available to probation officers when making an evaluation around an individual's sentencing and rehabilitation.

"The fact we've got multiple systems, about the same people, is a constant frustration for every practitioner."

- Sentencing and rehabilitation practitioner

"Some forces will give you a two year history, others will give you a 12 month history, others will only do it if it's a domestic abuse offence. Other forces will do it for any individual that we've got concerns around. So it is navigating all of those rules, that's really difficult."

- Sentencing and rehabilitation practitioner

This fragmented information sharing environment creates frequent, constant, and multiple delays for probation officers when they are tasked with providing a pre-sentencing report and results in them often basing their assessments on incomplete information. An agreed data specification which sets out the level of information, including the time period it should cover, and the format it should be provided in will give probation and police officers the clarity both require to cooperate efficiently.

RECOMMENDATION

POLICE-PROBATION DATA SPECIFICATION

The College of Policing should carry out consultations with police forces and probation to establish coherent national data specifications that should be imposed across forces for the provision of relevant information to probation.

Digital disconnect in prisons

Legal representatives, sentencing and rehabilitation stakeholders, and justice sector experts all highlighted how the lack of digital technology inside prisons is not only a missed opportunity in terms of rehabilitation but is increasingly seen as aggravating the problems faced by individuals on release. The digital revolution has largely passed prisons by, leaving them disconnected from each other and from their partners in the justice system. This is partially by design; prisoners are by definition denied unfettered access to the outside world, whether in physical or digital form. However, the concern with keeping the outside world out, combined with underfunding, has left the prison estate largely devoid of digital technology that could help in the smooth running of the prison and the rehabilitation of prisoners. During our research we heard how all requests made by prisoners inside remand prison were still processed via paper forms which required prison officers to distribute and gather dozens of forms daily across their wards. Prison officers are also required to record information about their prisoners while moving through the prison during their shift. At present this information is first noted down by officers and then entered into the system at the end of the day. This adds to officer workload and increases the possibility of error. The introduction of handheld devices for prison officers would allow them to minimise the repetition of recording information by immediately inputting it into the system.

RECOMMENDATION

HANDHELD DATA ENTRY WITHIN PRISONS

HMPPS should immediately scope out the cost and benefits of providing prison officers with handheld devices to allow them to enter information directly into relevant data systems without the need to record all information physically first.

We also heard of older prisoners who had to closely guard their own case documents within prisons as they do not have digital copies and are unable to make any. The same applied to case workers attempting to communicate with prisoners from outside prisons, who had to go through timely processes to get permission to send confidential letters to prisoners. This almost purely analog system makes communication inefficient and prone to errors, whether the communication is purely internal or with an external party. It also increases the workload of officers trying to keep prisons secure by introducing unnecessary external material.

“In this day and age, it just seems very strange that we can't just securely email a prisoner, and they have access to that quickly and easily.”

- Legal representative

RECOMMENDATION

INTERNAL PRISON EMAIL SYSTEM

HMPPS should implement a closed email system within each prison, with the capability to transfer information across an air-gapping infrastructure to enable secure digital communication within prisons, between prisons, and with external parties.

Beyond the efficiency and security of prisons, greater use of digital technology could promote improved rehabilitation among prisoners and ultimately make society safer. Inside analog prisons, prisoners have no ability to gain valuable digital skills that could help them to gain employment on their release. A small number of prisoners leave the prison estate having never held a smartphone or used a computer, and are then expected to find work in the modern economy. Restricted access to online learning materials and digital technology on which to learn new skills could provide a safe and up-to-date way for prisoners to prepare for life on the outside. Improving access to digital technology could also improve rehabilitation by giving prisoners the ability to stay connected with family and friends. It has been shown that maintaining these relationships during imprisonment can contribute to reducing reoffending²⁴.

RECOMMENDATION

INTERNAL PRISON NETWORK

The MoJ should conduct a cost-benefit analysis of the deployment of a closed system within prisons that would provide the necessary training and familiarity to prisoners in order to develop digital skills that would help them gain employment on release.

²⁴ [Through the Gateway: How Computers Can Transform Rehabilitation \(2013\)](#), Nina Champion, Kimmet Edgar, The Prison Reform Trust

9. Strategic issues with systemic effects

While we have so far concentrated on issues that are found primarily at certain points as a case flows through the system, some issues were clearly systemic and warrant separate consideration.

Recruitment and retention of staff

Our conversations with practitioners confirmed a theme found throughout policy papers on this issue: that all areas of the criminal justice system (CJS) are struggling to keep and find staff. This has undermined efficiency in several agencies as they have seen staff with specialist skills and experience in complex cases leaving without replacement. Often this has led to individuals covering work for which they are not fully trained, or which does not take full advantage of their skill set. Similarly, others are being burdened with more work than they can effectively manage, leading to overall less effective working, for instance.

“We found a supervising officer in the Met that had the most outrageous caseload of anybody I've ever heard of, which was not physically possible to manage.”

- Justice policy expert

Recruitment and retention challenges exist across the whole system. New funding for the Probation Service to hire additional officers to manage the increase in demand resulting from the Police Uplift will not provide immediate relief as it can take 15 to 21 months to qualify and experienced officers are hard to come by. Court users highlighted how the high turnover of staff within the courts meant significant time was spent by new personnel in learning the idiosyncrasies of the systems, processes, and technology being used. Sentencing and rehabilitation practitioners highlighted the difficulty they experience in recruiting qualified staff.

These challenges emphasise the importance of technical adoption for processes and tasks that can be automated or where technology can enable better decisions to be made. In any organisation, new staff will usually be unfamiliar with the details of how systems and tools are used within the context of their new role; there is a time cost for staff to become accustomed to this. Across a system already struggling to keep up with demand, there will also be pressure to progress cases as swiftly as possible, which puts additional pressure on new staff which could be lessened by technological assistance until they gain experience. It is critical that all system users, but especially new system users, have the relevant information available to them with which to make the appropriate choices, or take the most appropriate actions.

RECOMMENDATION

RESOURCING DEMAND ANALYSIS AND COORDINATION

All agencies should conduct an analysis, in consultation with their workforce, to understand how effectively they are utilising the skills and expertise of their staff, identifying gaps and inefficiencies in deployment and, where feasible, sharing technical skills across the CJS to help create a more digitally joined-up justice system

Engagement of victims and witnesses

Victims, witnesses, and defendants suffer the consequences of the cumulative build up of inefficiencies. Engagement with victims has been identified as a key priority to maximise the number of cases that reach a satisfactory outcome. The success of Independent Sexual Violence Advisers (ISVAs) and Independent Domestic Violence Advisors (IDVAs) has shown that strong engagement with victims, especially vulnerable ones, reduces the likelihood of withdrawal and improves their experience of the system as a whole.

“You’ve got a lot of cases that will just sit there delayed, no one’s communicating, no one knows what the other agency is doing”

- Justice policy expert

Our Victim’s Strategic Needs Assessment for the Mayor’s Office for Policing and Crime (MOPAC) found that both practitioners and victims were in agreement that a single trusted relationship with an advocate, who can liaise with different agencies and professionals, is crucial for victim recovery. It is important to underline that as well as impeding the justice process and reducing confidence in CJS, these delays can exacerbate the trauma and distress of victims and witnesses. Consultation has recently concluded on the Victim’s Law proposed in December 2021 and when in operation it will place additional responsibility on CJS agencies to coordinate their communication with and support for victims. In particular, it places a duty on police and the CPS to record more accurate and detailed information on victims, making the need for smooth data-sharing between these organisations all the more important. An upcoming joint inspection by HMICFRS on victims’ experience across all CJS agencies is a welcome step and offers an opportunity to scope out where technology could play a role in supporting victims in both the short and long term.

“Where do you go if you’re a victim if you want to challenge something... there’s nowhere for them to go and raise those issues in order to troubleshoot it and get it back on track”

- Justice policy expert

While each agency will have its own set of priorities and objectives, a greater focus needs to be placed on delivering fair, swift, and certain justice for all CJS users as the overriding objective for the criminal justice system.

RECOMMENDATION VICTIM-FOCUSSED SOLUTIONS

All CJS agencies should be required to evidence how their processes, systems, and actions are prioritising the overall objective of the system to be proportionate, accessible, and deliver swift and certain justice for all²⁵ without causing detrimental impact to other parts of the system. This should be a fundamental assessment point for inspections, audits, and other governance and oversight structures.

Attrition of cases through the system

Our conversations with practitioners suggest that there is significant opportunity to improve the volume of cases that reach a satisfactory conclusion in an efficient manner. Despite increased reporting of domestic abuse cases, the absolute number that are prosecuted has decreased. This is, in part, caused by the unintended consequences of policies designed to speed up the flow of more minor cases through the system. The Policing and Crime Act (2017) stipulates how long the police have to charge an individual, with offences such as common assault having a 6-month time limit. Law enforcement practitioners highlighted to us that this leads to less serious offences being prioritised due to the time-limits, in effect delaying the more serious cases with longer time-limits.

“The lowest risk offences have a six month statutory time limit on them. They can take quite a long period to investigate; if an officer submits that five months into the investigation then [the Criminal Justice Unit] have to put aside the GBH or the rape, because that hasn't got a time limit, and deal with the job that's got a time limit.”

- Policing stakeholder

The attrition of rape cases due to victims withdrawing from the process has drawn significant attention and although national data is poor on this the London Rape Review found that 65% of cases closed because a victim withdrew from the investigation.

In order to understand where and why attrition occurs across the CJS, a comprehensive audit of case attrition needs to be conducted to identify the pressure points that need to be addressed to maintain confidence among CJS users. Counter-productive outcome targets should be immediately removed in order to reverse the negative consequences they are generating

RECOMMENDATION JOINT INSPECTORATE ATTRITION ANALYSIS

The criminal justice inspectorates should conduct a joint analysis of cases across the system to identify the attrition pinch-points that agencies need to remove.

²⁵ [Transforming our Justice System \(2016\) By the Lord Chancellor, the Lord Chief Justice and the Senior President of Tribunals](#)

Data silos:

A 2017, HMCTS funded, Legal Foundation paper laid out a data strategy for the courts with the aim of ensuring access to justice was improved or maintained through the implementation of digital technology in courts (Byrom, 2017). However, a 2021 Public Accounts Committee report pointed out that the large part of the report's recommendations have yet to be implemented (House of Commons Committee of Public Accounts, 2021). Similarly, an NAO report found the courts system still struggles to understand the demand on its estates and the potential effect of technologies such as video-enabled hearings on vulnerable people in the courts system (NAO, 2021). Several publications have identified a cultural barrier to sharing data effectively.

A fear of breaching data protection laws which inhibits the reasonable and proportionate sharing of data is identified as contributing to reluctance on the part of some agencies to transfer important information (Hitchcock and Timmis, 2018). In different parts of the CJS, protectionism around data leads to a reluctance to share information that would allow agencies to improve their response to demand. Meanwhile, police force IT procurement has come under criticism as too risk-averse, with small IT departments unwilling to make ambitious investments due to the fear of taking the blame for failure (Police Foundation, 2022). Across the different interfaces that connect the CJS, greater transparency and coordination will allow agencies to habitually and purposefully share information in order to better understand and respond to demand.

“The hoarding of data in silos is a real barrier to making progress... There was a degree of protectionism around the kind of not wanting undue influence being brought to bear”
- Policing practitioner

Concerns related to data-sharing in this sphere are legitimate and will have to be addressed, but without progress towards greater transparency the CJS will struggle to adapt to modern data-hungry technology. While there are numerous standards and guidelines for data collection and management in the CJS, each of these is interpreted differently by agencies. There is a need for specification on the frequency and format of data delivery.

RECOMMENDATION

DATA SHARING GUIDANCE AND DUTY TO SHARE

The government should commission independent guidance from data protection and data sharing experts, in consultation with agencies within the CJS and the Information Commissioner's Office to explicitly state what structures need to be put in place for the sharing of data across the CJS. This should address the issues raised by CJS stakeholders and the reasons given for denying the sharing of data so that all agencies across the CJS are clear on what can and cannot be shared. Furthermore, a Duty to Share data should be legislated to ensure the system can function as a collective whole.

Governance, accountability, and inconsistency across the system

Whilst it is important to maintain the independence of different agencies within the system, it is clear that the siloed implementation of technological capabilities has led to inconsistencies and disparities between agencies and even within agencies which has an impact on operational efficiency. That different police forces use different systems (and different structures even if the same systems are used) is well known. However, other parts of the wider system have similar issues, some of which have been exacerbated by the swift roll-out of systems during the Covid-19 pandemic. This is evident in the case of video hearing technology, which continues to be implemented differently across courts based largely on the preferences of judges.

“What we have been asking for since the pandemic... is for the senior judiciary to issue some sort of national protocol on when a remote hearing should be used, and when in person is best, because at the moment, it's all done discretionary”

- Legal representative

The lack of overarching responsibility for the entire system or a coordinated data/case management strategy across all agencies represents a substantial barrier to overall effectiveness and efficiency. The operational independence of agencies can be maintained while agreeing standard systems, structures, and procedures.

“Police IT is difficult because there isn't a national system... Unless you get the IT sorted out, the effectiveness of your deployment of those officers is massively undermined”

- Justice policy expert

RECOMMENDATION

UNIFIED GOVERNANCE STRUCTURE FOR THE CJS

The government should unify the CJS under a common governance structure, ensuring there is accountability for the whole system and ensuring that a consistent strategy is being implemented across agencies to deliver against the objective of the system as a whole.

Equally, an independent oversight structure that allows individuals, such as victims and witnesses, to hold the system to account is a fundamental weakness that will, eventually, need to be addressed in order to truly maximise the efficiency of the criminal justice process.

"It's no individual agency's fault, but the consequences are a knock on of what's going on. It's creating so much inefficiency... It's a shame because it could be so much better. And it could be supporting victims of crime so much better as well... It needs to be more efficient."

- Policing stakeholder

"That's the problem you have, you've got so many different partners you don't have anyone owning the entire end-to-end process. It's very fragmented, there are so many different parts... You need an oversight body of some form that can keep that check of cases across the system"

- Justice policy expert

RECOMMENDATION

UNIFIED OVERSIGHT STRUCTURE FOR THE CJS

The government should explore the feasibility and structure of an independent cross-CJS oversight body which would be a 'one-stop-shop' for victims, witnesses, and defendants to engage with. This body should both represent the voice of the CJS service users and work with the CJS inspectorates to ensure agencies across the CJS are held to account and necessary information is being provided by agencies so that independent scrutiny can be conducted.

Strategic governance and oversight covering the full CJS process could facilitate more consistent user experiences, coordinated responses across agencies, and drive the significant investment that the system should be making in delivering technological solutions that improve the experience of the victim. This will require substantial engagement with stakeholders across the system, which, while not trivial, is certainly feasible as our engagement with policy-makers, practitioners, academics, and domain experts demonstrates. There exists a motivated core of personnel who work across the system, whether for public agencies, for private sector providers or for the voluntary sector, who wish to drive change and better cooperation between agencies.

10. Conclusion

From speaking to stakeholders across the CJS, it is clear that the criminal justice system is at breaking point and that the workforce is struggling. However, as our report has shown, the potential for technology to unlock efficiency gains, drive integration and therefore ease current pressures provides grounds for optimism.

It is clear that a gap has opened up between the technological capabilities of the CJS and those of the rest of society, and that it is steadily growing. There is an urgent need to address this CJS technology gap so that the system can continue to meet the expectations placed on it by the public.

“It's an old, inefficient system that is consumed by process and legislation, as opposed to focusing on end product, which is swift and efficient justice for victims. And I think we lose sight because there's just so much else, so much bureaucracy and inefficiency all the way there.”

- Policing stakeholder

But reform won't happen organically. Indeed it is vital that it is planned strategically. The story of technology projects in the CJS has too often been one of ad hoc and piecemeal reform, which ends up withering on the vine. Our research for this report has consistently revealed frustration that different parts of the CJS are adopting separate approaches to how they commission and use new technology, which is making the job of coordination harder rather than easier.

The good news is that there are a wealth of potential solutions that are ripe for implementation; some of which are focussed on highly tactical issues, such as digital forensic analysis, automated redaction tools, and the court's Listing process upgrade. Others require more systematic and structural reform such as the unified governance and oversight structures and the technological innovation duty.

In a world where budgets are likely to be under pressure, smarter, more strategic use of technology holds the key to ensuring the criminal justice system is able to meet the challenges we face, from improving victim engagement and satisfaction with the system to providing staff with the tools and structures they need to deliver an efficient and effective criminal justice system.

11. Acknowledgements

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Key CGI partners:

Wendy Grille Collins	- Marketing Business Partner, CGI UK
Liz Lindsay	- Strategic Marketing Campaigns Director, CGI UK
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CJS stakeholders:

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Rachel Allen	- Wales CJB Coordinator
Tony Blaker	- SRO transformation, Police Digital Service
Katy Bourne	- Police and Crime Commissioner for Sussex
Julie Brets	- Digital Business Change, HMPPS
Piran Dhillon-Starkings	- Advisor to the Chair (Public Affairs), Bar Council
Ryan Doyle	- Head of Criminal Justice, Devon and Cornwall Police
Ross Gribbin	- Strategy Director, Ministry of Justice
Peter Grieves-Smith	- Principal Crown Advocate, CPS
Anna Harbridge	- Youth Justice Service Manager, Southampton YJS
Rose Holmes	- Head of Research, Bar Council
Chloe Jay	- Defence Solicitor Rep, Hampshire LCJB
Donna Jones	- Police and Crime Commissioner for Hampshire
Max Lawson	- Policy Advisor to Independent Victim's Commissioner for London
Suzanne Llewlyn	- Chief Crown Prosecutor, CPS Wessex
Rick Muir	- Director, Police Foundation
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David Rawlings	- T/DCI Operations Lead, Tackling Organised Exploitation
Phil Robertson	- Head of Policy, Bar Council
Abby Simpkin	- Policy Lead for Criminal Justice, Drugs and Alcohol, Warwickshire OPCC
Betsy Stanko	- Advisor, Operation Bluestone Soteria
Jennifer Warren	- Prison Officer, HMP Pentonville
Claire Waxman	- Independent Victim's Commissioner for London

Appendix 1 - Recommendations impact and investment matrix

The 21 recommendations made in this report have been measured against the potential impact they would have on improving the efficiency of the CJS, enabling better decision making, and driving better outcomes and compared with the resource requirements necessary to enact them. These requirements will often have a financial element as well as human element and management/organisational need. The scores are based on the discussions and workshops held with practitioners, policy makers, and justice sector experts as part of this research.

Legend:

- - Minimal or no impact on improving this metric
- ■ - Some localised impact on improving this metric
- ■ ■ - Significant local impact or minimal wide-scale impact
- ■ ■ ■ - Significant impact across one or more stages of the CJS
- ■ ■ ■ ■ - Significant impact across the whole CJS

- - Minimal financial or human resourcing requirement
- ■ - Some financial / human resourcing requirement from single or multiple agencies
- ■ ■ - Substantial financial / human resourcing requirement from a single agency
- ■ ■ ■ - Large financial / human resourcing requirement from multiple agencies
- ■ ■ ■ ■ - Substantial financial / human resourcing requirement from multiple agencies

Recommendation	Improve efficiency	Enable decision making	Effective outcomes	Resource requirements
National Digital Forensics Capability	■ ■ ■ ■	■	■ ■	■ ■ ■ ■ ■
Guidance On Digital Tools For Law Enforcement	■ ■	■ ■ ■ ■	■ ■ ■	■ ■
An Umbrella Data Sharing Agreement	■ ■	■ ■ ■	■	■
Invest In Automated Redaction Tools	■ ■ ■ ■	■	■	■ ■
Data Validation Audit	■ ■	■ ■ ■ ■	■	■ ■ ■
Data Sharing Platform	■ ■ ■	■ ■ ■	■	■ ■ ■ ■ ■
Automated Communication System	■	■	■ ■ ■ ■	■ ■ ■ ■ ■
Technology Cooperation Duty	■ ■	■ ■ ■ ■	■	■ ■
Primary Convenor For CJS Innovation	■ ■ ■	■ ■ ■ ■	■ ■	■ ■
Decision-Assisting Listing Data Analysis	■ ■ ■	■ ■ ■ ■	■ ■ ■	■ ■ ■ ■
Court Digital Upgrade Consultation	■ ■ ■	■ ■	■ ■	■ ■
Police-Probation Data Specification	■ ■	■ ■ ■	■ ■	■
Handheld Data Entry Within Prisons	■ ■	■	■ ■	■ ■
Internal Prison Email System	■ ■	■	■	■ ■ ■
Internal Prison Network Cost-Benefit Analysis	■	■	■ ■ ■	■ ■
Resourcing Demand Analysis And Coordination	■ ■	■ ■	■ ■	■ ■ ■ ■
Victim-Focussed Solutions	■ ■	■ ■	■ ■ ■ ■ ■	■
Joint Inspectorate Attrition Analysis	■	■ ■	■ ■ ■ ■ ■	■ ■
Data Sharing Guidance And Duty To Share	■ ■	■ ■ ■ ■ ■	■ ■ ■	■ ■
Unified Governance Structure for the CJS	■ ■	■ ■	■ ■ ■ ■	■ ■ ■ ■ ■
Unified Oversight Structure	■ ■	■ ■	■ ■ ■ ■	■ ■ ■ ■ ■

Appendix 2 - Methods

We have undertaken this research project to identify the pressure points and blockages within and between the agencies of the criminal justice system (CJS) and their impact on operational performance and on victims and other CJS users. Our aim is to provide real-world solutions with an emphasis on smarter use of digital technology to reduce the backlog in the courts and deliver a more effective and efficient justice system.

Our objective was to:

- Outline the current situation across the CJS and identify where the blockages and pressure points exist.
- Engage with stakeholders and highlight where they felt technology could provide the greatest benefit, through improving the efficiency of the system, enabling better decision making, or improving outcomes.
- Develop real world solutions in partnership with CJS practitioners, policy-makers, and technical experts, bringing people together to identify the greatest priorities across the CJS.

We began by carrying out a review of publicly available data and the existing policy and academic literature to assess the current state and performance of the CJS in England and Wales. To reflect our focus on achieving an end-to-end understanding of the system we sought views from stakeholders in each agency and government department in the CJS. We also interviewed individuals with a strategic role who could comment credibly on how the system was faring at a high level. Through a series of individual meetings and small group conversations with policy-makers across the Ministry of Justice (MoJ); practitioners from across the CJS including policing, the courts, prison officers, probation services, and local criminal justice boards (LCJBs); and both technical and domain experts we identified examples of pressure points, disconnects, or obstacles hampering the flow of cases and critical information across the system and developed a series of potential solutions to catalyse discussions with practitioners.

Finally, we facilitated a workshop, attended by representatives from:

- The Bar Council,
- The Criminal Justice Board for Wales,
- Crown Prosecution Service (CPS),
- Defence representatives,
- London Mayor's Office for Police and Crime (MOPAC),
- The Ministry of Justice (MoJ),
- Policing, and
- Prisons

Through the workshop we tested the feasibility of our potential solutions and asked attendees to prioritise them based on their potential impact and ease of implementation. We are grateful to them all for the time and expertise they've given to this research.

This report draws together the findings of this research to deliver recommendations on how digital technology can improve the current functioning of the CJS. The success of any policy in a given part of the CJS is dependent on the ability of the entire system to adapt to its consequences. As a result we have taken a broad approach, seeking to form an end-to-end understanding of the challenges in order to generate solutions that consider effects across the system and break down, rather than erect, barriers between agencies. Our recommendations throughout this report distinguish between technological solutions that increase efficiency, enable better decision-making, and improve effectiveness.

Efficiency: *Solutions that speed up the CJS by saving time or reducing the workload on practitioners so that more cases can be progressed to a satisfactory conclusion in less time.*

Enabling: *Applications of digital technology that allow practitioners to make better-informed and more confident decisions. For example, these could be to optimise court listing systems, ensure police and CPS case files are complete and up to date, or ensuring probation services have all the information they need in a timely and consistent manner.*

Effectiveness: *Technological solutions that lead to improved outcomes in terms of harm reduction, crime prevention and public confidence in the system, particularly concerning victim satisfaction.*

Lastly, we have considered the scale at which the recommendations would impact across the three areas outlined above and the necessary resource input from the system or wider government. The results of this are included in Appendix 1 and are informed by our discussions with experts and practitioners as part of this research as well as our wider engagement with policing and criminal justice experts and practitioners from previous research.

About Crest Advisory

We are crime and justice specialists - equal parts research, strategy and communication. From police forces to public inquiries, from tech companies to devolved authorities, we believe all these organisations (and more) have their own part to play in building a safer, more secure society. As the UK's only consultancy with this focus, we are as much of a blend as the crime and justice sector itself.

About CGI

Helping transform the way Justice is administered across the UK

For over 20 years, CGI has been at the forefront of helping the UK Justice system update, to employ modern ways of working and keep pace with a rapidly changing world. We are committed to supporting UK Justice to continuously improve the services delivered. Over 70,000 frontline users take advantage of CGI's systems across the country.

We work in partnership with clients. Our work with the Crown Prosecution Service, Ministry of Justice, Her Majesty's Courts and Tribunal Service, Home Office, National Crime Agency, and National Policing uniquely positions CGI with end to end oversight of the Criminal Justice system. So, we understand the challenges being faced today and how to overcome them to help accelerate our client's ability to translate data into actionable insights, and then share this data securely, across the UK Justice System.

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