Submission to the VLRC
AI in Victoria's Courts and Tribunals
December 2024

CONTENTS

ACKNOWLEDGEMENT OF COUNTRY

Juries Victoria acknowledges the Traditional Owners of the lands across Victoria on which we operate, and pays respect to their Elders, past, present and emerging.

ABOUT JURIES VICTORIA

Juries Victoria (JV) is responsible for providing a system of trial by jury that delivers outstanding service to the higher jurisdiction courts and inspires community confidence.

JV is a citizen-centric organisation that takes pride in the important role juries play in bringing the values, standards and expectations of our community into the courtroom.

JV operates under the *Juries Act 2000* (Vic). Section 1 of the Act sets out our purpose.

To provide for the operation and administration of a system of trial by jury that–

(a)   equitably spreads the obligation of jury service amongst the community; and

(b)   makes juries more representative of the community; and

(c)   permits the timely adoption of new technologies for the selection of persons for jury service.

See Attachment 1 (*Business Processes and Decision Points*) and note that in Financial Year (FY) 2023/2024[1]:

- Over 340,000 Victorian citizens were randomly selected from the Electoral Roll, sent a Notice of Selection for jury service and required to complete a questionnaire.

- To confirm the eligibility and availability of citizens for jury service, the Juries Commissioner's Office (JCO) assessed the responses to questionnaires against criteria listed under sections 8 and 9 and schedules 1 and 2 of the Act[2], as well as the *Jury Exemption Act 1965* (Cth) and *Jury Exemption Regulations 2019*.

- The JCO issued 107,000 summonses per section 27(1), with some people receiving more than one summons if they had been granted a deferral (section 7 of the Act) or if the Juries Commissioner had recalled, cancelled and issued a fresh summons per section 27(3).

- Ultimately, almost 21,000 individuals attended for jury service and around 6,300 people served on a one of 530 juries in Supreme or County Court criminal or civil trials.

SUMMARY

JV acknowledges that juries were not specifically included within the scope of the consultation paper. Despite this, we believe that there is significant potential for AI in improving the efficiency and overall user experience of the jury system. In many cases, these benefits would derive from the same or similar tools as those that may be considered for use by Victoria's courts and tribunals.

As juries have not been directly included in the scope, we have remained silent on a number of questions and issues raised in the consultation paper. While JV would welcome the opportunity to contribute to the discussions which will no doubt arise from the publication of the final report, we believe the process is best served by limiting our submission to those areas in which JV is empowered by the Act, or in which we have significant involvement as pertains to the effective and efficient operation and administration of a system of trial by jury.

Where JV is silent on a question or issue, it should not be inferred that we support or do not support any particular approach, stance, or model.

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[1] Supreme Court of Victoria, *Annual Report 2023-24*, p. 48.

[2] Schedule 1 lists reasons for disqualification from jury service, while schedule 2 and the Jury Exemption Act and regulations list reasons of ineligibility for jury service. These are referred to collectively as 'eligibility criteria'.

Sections 8 and 9 list reasons an individual may be excused or permanently excused from jury service, respectively. These are referred to collectively as 'availability criteria'.

AI IN JURIES

This section outlines some of the potential applications of AI at each of the stages of the jury selection process. It does not purport to be an exhaustive overview of such applications, however, and JV has not fully explored all implications, risks and benefits associated with those applications included. This section should therefore be understood to reflect a furthering of the conversation around AI's application in the justice system, rather than a statement of position or intent by JV.

Assessing liability and availability for jury service

Upon request of the Juries Commissioner, the Victorian Electoral Commissioner selects at random a list of names from the electoral roll. Selected individuals are then sent a notice of selection and a jury eligibility questionnaire, thus beginning their involvement in the jury selection process. The completed and submitted questionnaire is then assessed to determine the individual's eligibility and availability to undertake jury service.[3]

Engaging randomly selected individuals

Currently, randomly selected individuals have the option of completing and submitting the eligibility questionnaire in either a hardcopy paper form or online via the jury management system (JMS). The online questionnaire largely replicates the paper version without taking advantage of potential technological enhancements.

Although most categories of ineligibility for jury service are predominantly binary in nature, there are some that are open to interpretation, or which may require further qualifying information before an accurate assessment can be made.[4] Similarly, many categories of unavailability (ie valid reasons to be excused from jury service) are context dependent. In both instances, JV staff are often required to solicit additional information from individuals after their questionnaire has been submitted before making a determination on their liability and availability for jury service.

Potential exists to integrate a generative AI tool, in the form of a limited chat bot, into the questionnaire. This chat bot would be coded to activate only in response to an individual's selection of specific options in the questionnaire, presenting them with additional questions designed to refine their response to reduce and, ideally, eliminate the need for staff to contact them for further information. The additional information acquired by the chat bot would inherently improve the effectiveness of any automated decision-support or decision-making tools.

A generative AI chat bot tool could also be employed in a more radical manner by completely replacing the 'static' questionnaire with a more fluid and responsive chat bot-esque questionnaire. There would need to be further exploration undertaken, however, as to whether such a solution would yield greater improvements in efficiency than other potential solutions. Similarly, the 'informality' of such a tool may serve to undermine the air of legitimacy, importance and gravitas that jury service should be viewed with by randomly selected individuals.

Automated decision-support and decision-making

Automated decision-support (ADS) and decision-making (ADM) AI systems could use a 'statistical precedent' machine learning tool to augment or in some cases entirely replace the need for completed questionnaires to be assessed by JV staff.[5] As most categories of ineligibility, as well as several categories of unavailability, are predominantly binary in their interpretation and application, these systems could employ either human-in-the-loop or full autonomy in the majority of decisions while maintaining a large degree of confidence in their accuracy.

Both ADS and ADM systems would assess an individual's responses against the relevant Victorian and Commonwealth legislation and regulations. These systems could also be programmed to account for JV's interpretation and application of the relevant legislation, as dictated by practice directions, as well as previous decisions made by JV staff.

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[3] Schedule 1 of the *Juries Act 2000* (Vic) lists categories of disqualification from jury service, while schedule 2 lists categories of ineligibility. For the sake of brevity, the label of 'ineligible' has been applied to both schedules throughout this document.

[4] An example of a category that is open to interpretation is sch 2 cl 1(f), which reads *a person employed or engaged (whether on a paid or voluntary basis) in the public sector within the meaning of the **Public Administration Act 2004** in law enforcement, criminal investigation, the provision of legal services in criminal cases, the administration of justice or penal administration.*

An example of a category that may require further qualifying information is where an individual advises they are a member of the Australian Defence Force, as only certain service categories are exempt from jury service.

[5] For more information on statistical precedent, see Ryan W Copus, 'Statistical Precedent: Allocating Judicial Attention', 73 *Vanderbilt Law Review*, 2020.

Both AI systems would automatically process individuals assessed as eligible and available. Where they would differ is in processing individuals assessed as potentially ineligible and/or unavailable for jury service.

ADS: Provides a recommended outcome based on a combination of the questionnaire responses, relevant legislation and/or regulations, JV practice directions on interpretation and application, and previous outcomes with similar circumstances. A JV staff member would then review this recommended outcome and either fully or partially implement or override it. Either partially or fully overriding a recommended outcome could also automatically trigger a notification to a manager/s for review to ensure consistency in approach by staff.[6] The system could also periodically generate reports or flag in real time any patterns of deviation from recommended outcomes by staff, either individually or collectively, to better identify potential areas of additional training.

ADM: Actions its own recommended outcomes without the need for staff approval. While most decisions could confidently be automated in this manner, circumstances that are deemed sensitive in nature, for example those related to disability, could be automatically escalated to a manager for actioning, either with or without an outcome recommended by the system. Novel or unique situations not previously encountered by the systems could similarly be flagged to a manager for review and action, furthering the accuracy and scope of the system via machine learning.

E-filing

The potential of JV's current JMS could be significantly enhanced through implementation of e-filing and other enhancements, including the integration of AI systems. JMS currently has a limited e-filing capability, allowing individuals to complete the eligibility questionnaire, update their details, apply to be excused or deferred and upload documents in support of their questionnaire and/or applications. Staff are also able to create file notes on an individual's profile and upload documents received via fax, email or post.

Communication between individuals and JV is currently conducted primarily via mail, email and phone conversations, with staff then having to create file notes and/or upload documents to the relevant profile. Under the current system, applications to be excused or deferred and responses to the questionnaire are mono-directional and single-instance events; there is no capability for individuals to amend applications or questionnaires after submitting them, and except for an automated message outlining why an application may have been declined, there is no function allowing communication between the individual and JV within the JMS platform.

While some enhancements in this area would use expert or rule-based systems, there is scope for AI to play a part as well. For example, automated workflows could be implemented to sort all forms of correspondence between JV and individuals, including but not limited to questionnaires, summonses, applications, certificates of attendance and remittance notices, e-filing them on the relevant individual's JMS profile.

A machine learning tool similar in operation to the Intellidact AI tool used in some US counties could extend this e-filing functionality further.[7] For example, an e-document or an image of a physical document uploaded to JMS could be 'read' by the AI tool, which would extract important and relevant information before automatically e-filing it on the individual's JMS profile.

The tool's e-filing capabilities could be further enhanced by integrating it with JV's Outlook inboxes, or an alternative JMS e-messaging functionality. Similarly, integrating a natural language processing tool with JV's phone networks could enable the automatic creation of a transcript of calls, which could be e-filed under the appropriate JMS profile. A generative AI tool could be used to automatically generate file notes summarising correspondence and/or calls. The relevant staff member would then review the generated file notes and make any necessary changes before approving it.

An Intellidact AI-style machine learning tool could also read and classify documents submitted in support of applications to be excused from jury service, for example to determine if the supporting documentation is valid, pertinent and compelling. This could also form an automated decision-support tool for applicants, reading uploaded supporting documentation and alerting them if it is considered insufficient prior to the application being submitted. As part of the classification and e-filing process, the tool could be programmed to automatically allocate matters

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[6] It is not envisaged that the manager would be required to approve the staff member's decision before the system actions it, as this would likely impose an unnecessary burden on the manager. However, such a requirement could potentially be implemented for matters flagged by the system as being particularly sensitive based on defined parameters.

[7] Felicity Bell et al, *AI Decision-Making and the Courts: A guide for Judges, Tribunal Members and Court Administrators*, The Australasian Institute of Judicial Administration, 2023, p. 35.

considered somewhat sensitive in nature, such as those relating to a disability to a specified staff member, such as a Senior Juries Officer or a manager.

Empanelling juries

Those who attend for jury service on any given day form a jury pool. When a jury trial is ready to commence, a number of individuals are randomly selected from the pool in a process called 'balloting', forming a jury panel that is then escorted to the relevant courtroom for the jury selection process.

Forecasting

Forecasting occurs primarily at three distinct points during the entire jury process: at random selection; at summons; and at balloting. At all three points in time, the task of forecasting could be augmented, if not assumed entirely, by an adapted statistical precedent machine learning algorithm. This has the potential to greatly improve not only the overall efficiency of the jury process, but also the juror utilisation rate – that is, the proportion of selected individuals who ultimately attend for jury service and are either balloted to a courtroom or selected as a juror.

Such a tool would naturally base its forecasting on a broad range of inputs, such as estimated length of trial, the nature of the charges or claims, the number of defendants and the public profile of the trial (typically as a result of media coverage), to name a few. However, using statistical precedence could enhance the algorithm with more esoteric outputs, such as the likelihood that certain trials are delayed or settled prior to jury empanelment. These outputs would be informed by equally esoteric inputs, such as the historic trial readiness outcomes of matters with the same or similar charges or claims, presiding judges, number of defendants, public awareness, location, etc.

Predicting potential issues

A statistical precedent machine learning tool could also be used to predict the likelihood of a jury or juror experiencing a range of potential issues, allowing resources to be prepared in advance and applied to directly address these issues as they arise, and possibly before they even become issues. This would serve to minimise the potential impact these issues may have on trials, resulting in efficiency gains in running trials, operating the jury system, and allocating and applying resources to support trials and jurors.

While a statistical precedent tool could be used to assess the likelihood of other issues, three common issues come to mind as being prime examples of how the tool could be applied.

Empanelling additional jurors

A standard jury consists of 12 people in criminal trials and 6 people in civil trials.[8] However, a criminal jury can consist of as few as 10 people or as many as 15, while a civil trial can consist of as few as 5 people and as many as 8.[9] Empanelling more than the standard number of jurors typically occurs when a judge is concerned about the possibility of one or more jurors having to be discharged from the trial early, usually due to illness or an inability to continue due to the nature of evidence in the trial.

While there is some empiricism to these decisions, they are primarily based on the preferences and experiences of individual judges. The anecdotal aspects of these decisions, however, could be replaced with a firmly grounding in empiricism through the application of a statistical precedent tool. By assessing a range of simple and esoteric factors, such as length of trial, nature of evidence, and average temperatures and rates of illness at different times of the year, the tool could produce a comprehensive listing of the probabilities of one or more jurors needing to be discharged early during a trial. This would be used to inform judicial discretion on whether and how many additional jurors should be empanelled.

Juror misconduct

Juror misconduct encompasses a range of activities, such as failing to attend, revealing the identity of a juror, disclosing jury deliberations, failing to inform the judge of a connection to the trial, and making independent enquiries about trial matters.

Although the likelihood of juror misconduct is determined primarily by the disposition of the perpetrator, a statistical precedent tool could potentially be used to evaluate the probability of juror misconduct occurring in any given trial.

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[8] *Juries Act 2000* (Vic), section 22.

[9] *Juries Act 2000* (Vic), section 23, section 44.

In doing so, the tool may also be able to identify some factors that appear to influence, or at least correlate with, incidences of juror misconduct, such as trial subject matter.

While this would not be an exact science, it would at least provide some empirical basis upon which resources for combatting juror misconduct were allocated. Judges may also wish to take it into consideration when presiding over matters assessed as having a higher probability of juror misconduct, taking steps to proactively counter potential misconduct in their trials.

Psychosocial impacts on jurors

There is broad recognition that jury trials, particularly criminal jury trials, carry a risk of potential harm to the psychological health and wellbeing of all trial participants. Given jurors lack the prior awareness, training and access to support that most other trial participants have, they are perhaps most at risk of experiencing psychosocial harm as a direct result of their jury service.

Different AI tools may be used to reduce the risk of vicarious trauma resulting from graphic and/or disturbing evidence (see below). However, a statistical precedent tool could be used to flag trials with a high risk of impacting the mental health of jurors. Proactive steps could then be taken in these trials to minimise the risk of harm and reduce any harm incurred, such as allowing jurors access to counselling services during the trial, providing vicarious trauma training and other forms of proactive intervention, or scheduling in half and full day breaks in the trial to give jurors a reprieve and provide time for them to a least partially process their experience before the trial resumes.

Other proactive steps could include providing a qualified and registered psychologist on site during the trial or on the day of discharge, who can conduct group and/or individual counselling and/or debrief sessions with the jurors of high-risk trials. Similarly, jurors in high-risk trials could be given a DASS-21 (Depression Anxiety Stress Scales) survey during or immediately after the trial, which qualified and registered psychologists would assess and, where required, respond to with the appropriate form of psychological first aid.

Serving as a juror

Various AI tools could be employed to improve and enhance the overall experience of serving as a juror while also improving the efficiency and accessibility of the jury system. Some of these are explored in more detail below.

Reducing vicarious trauma

The *Artificial Intelligence in Victoria's Courts and Tribunals: Consultation Paper* contains information on the possible application of AI tools and systems to reduce the risk of vicarious trauma presented by graphic and distressing evidence.[10] However, the consultation paper limits itself to the benefits this technology presents for 'judicial officers… court support staff and other professionals interacting with the court system.'[11] Instead of reiterating the paper's content, we shall content ourselves with noting as self-evident that jurors would also reap many of the same benefits from such technology as those trial participants listed.

Improving accessibility

As noted in the consultation paper, natural language processing tools hold significant potential for the real-time transcribing – and potentially translation – of court proceedings.[12]

The potential impact of this technology on the accessibility of juries is substantial. Natural language processing tools could enable individuals who are deaf or hard of hearing to participate in jury service, for example by generating a real-time transcription of court proceedings that a juror with hearing impairments could read and follow along with using a court-provided tablet device. This overcomes many of the current restrictions preventing individuals with hearing impairments from serving on juries, such as the '13th juror' common law rule and the potential costs and logistical difficulties involved in providing a pair of Auslan interpreters to translate court proceedings into sign language.

Although a more radical proposal, the same technology could be used to open jury service to individuals who are currently considered ineligible due to being unable to adequately communicate in or understand English. There is a

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[10] *Artificial Intelligence in Victoria's Courts and Tribunals: Consultation Paper*, Victorian Law Reform Commission, 4.52–4.55, p. 44.

[11] Above note 11, 4.53.

[12] Above note 11, 4.43–4.48, p. 42–43.

plethora of international examples of natural language processing tools being used to provide real-time translations in both judicial and non-judicial contexts, which serve as proof of concept for the technology, if not outright validation.[13] These examples make it clear that individuals who cannot speak English undertaking jury service will be a technological reality before long.

CONCLUSION

As this submission makes clear, there is considerable scope for various AI tools to be employed in enhancing the jury system. Although it is outside the scope of the consultation paper, we believe it is important that courts and tribunals, governments and societies more broadly begin comprehensively evaluating the impact emerging technologies in general and AI specifically can have on the way jury systems operate. We hope that this submission serves as a tentative step in advancing that evaluation.
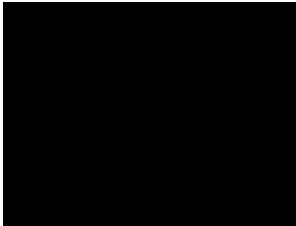
Paul Dore CF
Juries Commissioner

ATT: *Business Processes and Decision Poin6ts (Juies Act 2000)*

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[13] Above note 8, pp 37–40; above note 13.