REMOTE VOTING UNDER COVID-19

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WORKING PAPER NO. 72 (SEPTEMBER 2020)

Introduction

Election management has been described by the Australian Electoral Commissioner, Tom Rogers, as "the biggest peacetime logistical event held in Australia on a regular basis" (AEC 2019). Conducting an election is an even more demanding task in the midst of a public health emergency because it might be unsafe for voters to congregate in public spaces. In the case of SARS-CoV-2, avoiding large-scale social contact is critical to managing this virus, which is the "antithesis to the conventional practice of elections" (Weiser and Feldman 2020).

Pandemics inject an entirely new set of risks and challenges into election management because they require a significant adjustment to business as usual. This global pandemic, the scale of which was last seen in 1918, has raised important questions about how to protect voters and election workers, while also maintaining electoral integrity and participation. The concerns associated with holding elections safely during a pandemic has led to the postponement of elections around the world since February 2020 (IDEA 2020). Australia has not been immune, with local government elections in New South Wales being postponed and Tasmanian Legislative Council elections for the divisions of Rosevears and Huon delayed temporarily.[1]

However, the practical and symbolic importance of elections means that postponement is seldom considered to be a desirable outcome. Elections, in the words of Graeme Orr (2020, 55) are the "seasonal regenerators of legitimacy in representative government." Democracy depends on scrutiny of elected officials, and elections are a critical mechanism through which this occurs. Some democracies have erected formal legal barriers[2] in order to make it difficult or even impossible to delay an election (Rambaud 2020; Orr 2020). This gives rise to the prospects of elections proceeding during the height of a pandemic, as they did for the 2020 French local government elections, resulting in lower than usual turnout[3] and casting a pall over the outcome (Rambaud 2020). And in the case of those countries teetering on the precipice of authoritarianism, the postponement of an election, even on credible public health grounds, can play into anti-democratic tendencies. Thus, the delay of an election is rarely desirable, nor is it always easy to secure politically, legally or constitutionally.

At the same time, the health of the democratic political system must be carefully balanced against the health of the body politic. The decision, for example, to proceed with the Queensland local government election in March 2020 was criticised by many medical experts on health grounds (Smee 2020). The problem with pandemics, quite apart from the health and safety harms that they can cause, is their unpredictable duration, as the resurgence in the state of Victoria in July and in New Zealand in August 2020 demonstrated. Moreover, epidemiologists have long warned that although pandemics are comparatively infrequent events, the combination of environmental destruction and increased mobility are placing humans on a collision course with more frequent pandemics (MacIntyre *et al* 2017; UNEP 2020). Even when the SARS-CoV-2 virus is finally contained, health experts warn that other pandemics will follow.

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[1] Both Legislative Council elections were eventually held on 1 August 2020.

[2] In the Australian state of Queensland, for example, its Constitution allows for a maximum 5-week delay of the state election but only with the agreement of the leader of the Opposition (Orr 2020, 56).

[3] There was lower than usual turnout at the 2020 Queensland local government. Turnout in April 2020 was 78% compared to 83% at 2016 local government election. Having said this, turnout for the South Korean General Election, which was also held at the height of the pandemic, recorded one of its highest participation rates since 1992, albeit off a low base by Australian standards (66.2%).

Remote forms of voting are the obvious choice to use when holding an election during a pandemic. Remote voting departs from conventional Election Day voting in which electors cast their vote in person at a polling station in their local division. Instead, remote voting options enable the elector to vote from the comparative safety of their home, and in doing so spare them from having to make the unenviable choice between their health and their democratic obligations. Remote voting modes also limit the extent to which election workers come into contact with the public because voters are not required to converge on polling stations. Election workers are potentially at high-risk for developing acute symptoms from COVID-19 because of the older age profile of this workforce.[4]

This working paper builds on Michael Maley's (2020) comprehensive report entitled *Electoral Management Under Covid-19*. This report explores the efficacy of modalities which relieve electors from in-person voting. It examines three remote voting modes: postal; telephone; and remote internet voting. Early in-person voting is excluded on the grounds that the elector's physical attendance at the polling station is still required. While early in-person voting disperses voters by preventing their congregation at polling stations over the course of a single day, it still necessitates the careful management of those same health harms associated with Election Day voting but over many days and often over multiple weeks. In doing so, early in-person voting continues to place election workers in contact with the public[5] and over an increased number of days, while only leading to some reduction in harms to electors.

While remote voting has its virtues, it has distinct limitations. There are practical, technological, financial and also cultural and sociological concerns attached to their use. Compared to in-person Election Day voting, remote forms of voting can underperform on important criteria[6] of election integrity, such as secrecy, transparency and accountability. Nevertheless, the use of remote voting options should be prioritised during a pandemic to ensure that an election can proceed on schedule while also better protecting the health of all participants. However, the selection of any one or more remote voting modality should be informed by voter familiarity in their use and the Election Management Body's (EMB) experience in administering them.

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[4] A survey of NSW and WA election workers found that they tend to be middle-aged or older, with three-quarters over 45 years. The largest cohort by age who responded to the survey were between 55-64 years (Smith et al 2018: 46-47). The age profile of NSW and WA election workers is consistent with findings yielded in surveys performed by the Election Commission South Australia (ECSA) of returning officers that worked at the 2018 South Australian state election. Approximately 60% of the returning officers were more than 55 years of age, and 29% were more than 65 years (ECSA 2019, 23).

[5] US election administration experts, Nathaniel Persily and Charles Stewart III (2020), estimate that the typical American election worker encounters at least 700 electors on Election Day, compared to the voter who normally comes into contact with approximately 20 other electors.

[6] The criteria used by credible election bodies to evaluate the robustness of an election can differ, but most coalesce around a similar collection of values. For the purposes of this report, however, the author is referring to the key principles from the Election Observation Handbook developed by the Organization for Security and Co-operation in Europe (OSCE). OSCE's seven principles are: universal, equal, fair, secret, free, transparent and accountable.

Remote voting in perspective

Global election norm institutions, such as the ACE Electoral Knowledge Network (ACE), stress that elections require the careful balancing of procedural robustness, integrity, accessibility and also participation. Recognition that some voters will confront challenges that might hinder their ability to cast their vote in the usual way has led to convenience forms of voting to maximise elector access to the franchise.

There are, however, caveats attached to support for convenience voting. There is a longstanding view that these modes should be supplemental to in-person Election Day voting. That is, convenience voting should be permitted only when there are genuine impediments which would otherwise prevent an elector from presenting at the polling station in their local division on Election Day. The general disinclination against convenience voting is most marked in relation to remote voting forms.

Non-trivial reasons inform concerns about remote voting and strong support for in-person modes. In-person Election Day voting provides a greater measure of personal and ballot security. Voters cast their ballot on paper, in the privacy of a polling station, and under the protection of election officials. Such conditions best ensure that the ballot is received and counted in a timely manner, and it also best ensures that the elector is able to exercise their vote free from coercion (Birch et al 2014: 190). The voter is also able to observe for themselves that their name has been marked off the roll and their ballot deposited in a ballot box, instilling greater confidence that their participation and vote preferences have been duly recorded. Similarly, in-person Election Day voting is argued to enhance democratic civic engagement (Orr 2014) and promote fairness by ensuring that the outcome "expresses on equal terms the will of all voters" (Thompson 2004, 62). And it is also true that Election Day voting garners stronger levels of public confidence compared to every other voting channel (Smith 2017).

However, the strong presumption in favour of in-person Election Day voting presents a particular challenge for Australian electors during a pandemic owing to the particular legislative and constitutional arrangements common across the federation. The first is that there is a legal, and not merely civic, obligation to participate at elections.[7] As a result, Australia has some of the highest turnout figures by global standards. At the 2019 federal election, for example, 92% of enrolled voters cast a vote, the overwhelming majority of which were cast in-person, whether on Election Day, via mobile teams visiting electors, or at early voting polling station (AEC 2019a).

The second feature of Australian elections is that they are comparatively frequent occurrences because of its federal architecture. Voters are required to turnout at national elections, a state or territory election, and, in many jurisdictions[8], local government elections also.

The third characteristic of elections in Australia is that voting can be a time-consuming act because electors might be required to select candidates to fill vacancies for two legislative chambers, and the voting systems and ballot paper requirements that they use to do so are complex. As a result, voters are typically presented with two ballot papers to complete for

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[7] Many readers will be aware that Australian voters are not required to fill out their ballot papers. Because of voter secrecy, the only requirement is that voters must have their name marked off against the roll.

[8] In most Australian jurisdictions, participation at local government elections is also compulsory. Only South Australia, Western Australia and Tasmania do not specify compulsory turnout for local government elections.

national and state elections (except Queensland),[9] one each to fill vacancies for a lower and upper chamber of parliament. Similarly, the widespread use preferential voting across the federation places an additional set of demands on voters by specifying that they mark a sequential preference for most, or all of the candidates listed on the ballot paper.[10]

The combination of compulsory turnout, frequent voting, multiple ballot papers and complex ballot requirements also has implications for election workers. The administration of elections is labour intensive, especially during the vote casting and ballot counting phases. The Australian Electoral Commission (AEC) employed a temporary workforce of 80,000, over and above permanent AEC staff for the 2019 federal election (AEC 2019). More recently, the Electoral Commission of Queensland (ECQ) relied on 70 permanent and 10,000 temporary election staff to administer the Local Government elections in 2020 (ECQ 2020b, 7).

Quite apart from the importance of minimising election workers' exposure to harm, it is also critical that EMBs are able to recruit election workers. Elections requiring the voter's physical attendance also require voting officials to supervise polling sites. The inability to recruit sufficient numbers of election workers can degrade the electoral process, as it did in the US state of Wisconsin in 2020. Shortages of election staff at the April 7 election resulted in the closure of polling stations, and long lines at polling stations. In cities, such as Milwaukee, which experienced significant staff shortages, the number of polling places was reduced from 180 to five for a city of 592,000 people, leading to reports that many voters were disenfranchised (Nilsen and Zhou 2020; Rakich 2020).

The health risks associated with in-person voting can be mitigated by streamlining in-person voting, improving hygiene, and enforcing physical distancing requirements so as to minimize voter and polling official interactions (Maley 2020, 16). The possibility of transmission can be managed by a carefully developed and fully resourced risk mitigation strategy.[11] But remote voting best ensures minimal disruption to an election timetable, provide peace of mind to anxious voters, and increases the likelihood of a robust turnout even if a pandemic is at its peak.

Australian strengths in remote convenience voting in Australia

Before exploring the three remote forms in greater detail it is worth making three observations about Australian elections, voters and election management.

The first is that Australia has a long history of using alternative voting channels to facilitate the elector's right to vote when circumstances make it difficult for them to vote in-person on Election Day (Orr 2016, 56; Laing *et al* 2018). In its earliest guise, convenience voting assumed a fairly rudimentary form of early in-person voting before later evolving into postal voting as it is currently practiced (Brent 2008; Jaensch 2002; Phillips 2013). Over time, there has been steady expansion in the array of convenience voting options. Among the forms that are available in different jurisdictions across the federation include:

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[9] The exceptions are the ACT, Queensland and the Northern Territory, which have unicameral parliaments.
[10] How onerous this is depends on the particular rules prescribed by the relevant jurisdiction. Only NSW (optional), Tasmania (partial) and the ACT (optional) do not require full preferential voting (see, ECANZ for further details url: https://www.ecanz.gov.au/electoral-systems).
[11] For example, health authorities in South Korea reported no cases of community transmission arising from the parliamentary election held on 15 April 2020 (ANFREL 2020).

- *Provisional:* Permits voters to cast a vote even though their name does not appear on the electoral roll in the seat which they claim to be enrolled or the voter's name is already marked off the electoral roll as having voted;
- *Absent:* Electors cast their votes on Election Day at a polling booth outside the district for which they are registered but still within their state or territory;
- *Remote*: Occurs in geographically remote electorates, votes taken by mobile polling teams and typically conducted prior to polling day;
- *Institutional:* Electoral authorities visit institutions to collect votes either before polling day or on polling day;
- *Fax/email:* An approved voter receives his or her ballot paper and a special declaration form by fax or email;
- *Elector Visit:* A polling official visits voter's home address on Election Day and records their vote. The voter must have a serious illness, a disability or are in an advanced state of pregnancy, or are caring for a person who is ill, has a disability or is in an advanced stage of pregnancy. Presently only available in Queensland;
- *Drive-in:* Polling officers bring ballots to an elector who has limited mobility so that they can cast their vote without leaving their car;
- *Postal:* receive a ballot paper in the mail and then have a period in which to return the vote by mail before Election Day;
- *Telephone:* Voters cast their ballot via the telephone network;
- *Pre-polling:* Ballot paper completed in-person at an authorised polling station prior to Election Day;
- *Electronic:* The method of recording and collecting the votes occurs on an electronic voting machine, rather than through filling out a paper ballot. The electronic voting machines are located within polling places;
- *Internet:* Votes are cast over the internet through a web portal or specialised voting application on their computer or smart phone.

As this list indicates, there is a well-established infrastructure for convenience voting in Australia, even if most of these forms and the majority of all votes cast at elections are of an in-person kind. Australia's EMBs have extensive experience administering multiple and complex voting modalities securely, impartially, efficiently and in a cost-effective manner.[12]

The second point worth stating is that Australia enjoys trusted electoral administration. Voting is administered in this country in the context of a long and venerated tradition of professional and neutral electoral management (Kelly 2011; 2013; Hughes 2001; Maley 2020). This is affirmed in voter surveys showing high levels of public confidence in Australia's EMBs, and at levels higher than for comparable EMBs internationally. Australian election experts report even higher levels of confidence in Australia's EMBs than the public (Karp et al 2017, 16). Similarly post-election surveys commissioned by Australia's electoral commissions show high levels of net-satisfaction recorded in voter responses to questions about the quality of the *delivery of elections* (VEC 2018, 72; ECQ 2018, 820), the conduct of *polling officials* (WAEC 2017: 41), and elector perception that the election was undertaken *'fairly'* and *'impartially'* (Colmar Brunton 2019, 23).

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[12] Australia's EMBs have not always received adequate funding to implement new modalities. For example, the WAEC implemented the *iVote* system for the WA 2017 state election without any additional funding allocation. The $673,000 costs associated with the development of the *iVote* system had to be entirely funded from within the Commission's recurrent budget (WAEC 2017, 29).

A key factor explaining high levels of confidence in Australia's EMBs is their independent standing. Although the structural legal independence of Australia's EMBs was only achieved in the 1980s, their reputation for independence, impartiality and professionalism has a much longer lineage (Brent 2008; Hughes 1992). This independence, along with the practice adopted by many Australian parliaments of multi-party parliamentary committees to review elections and issue recommendations on electoral reform, has further served to depoliticize the work of the EMBs and election management more generally.

The third point is that convenience forms of voting are the preferred channels for increasing numbers of Australian voters. In recognition of the changing nature of the working week, voter access to convenience forms of voting has been relaxed, with many jurisdictions removing eligibility barriers for early in-person and postal voting (Laing *et al* 2018). With this easing of eligibility requirements, voters have enthusiastically embraced these modalities. This has led to a sustained trend away from ordinary voting at Australia elections, and growth in the use of convenience forms of voting, especially early-in person voting (Laing *et al* 2018; Smith *et al* 2018).

Voter interest in remote voting options has been particularly marked since the COVID-19 pandemic. There was strong demand for remote voting options at the Queensland local government elections held on 28 March 2020. 470,000 postal votes were cast at this election, compared to 320,000 in 2016. Similarly, there was a surge in postal vote applications (PVAs) at the by-election for the federal seat of Eden Monaro in April 2020. Antony Green's tracking of PVAs showed a 127% increase from the previous election. While not all of these applications resulted in a cast postal vote, the proportion of postal votes was significantly higher than the number for those cast at the 2019 federal election, up from 5.6% to 13.1% (Green 2020).

Several surveys have also shown that Australian voters have high levels of confidence in alternative modalities, such as postal and remote internet voting. Rodney Smith's study found that 79% of respondents reported a 'great deal' or 'quite a lot' of confidence in postal voting, and 57% - a majority - reported similar for remote internet voting (2016, 73-74). Moreover, a post-election survey of electors who used *iVote* at the 2018 New South Wales (NSW) state election indicated that a majority of respondents (74%) were satisfied with the *iVote* service and that seven in ten (72%) trust the *iVote* process (55% trust a great deal and 17% trust it a little)(Colmar Brunton 2019, 97).

The expertise, experience and trustworthiness of Australia's EMBs, combined with elector exposure to different voting modalities, provide a favourable context for the expansion of remote voting options.

Remote convenience voting options: postal, telephonic and remote internet

The three main forms of convenience voting examined in this section of the report are selected because they (i) provide a remote voting experience for electors; (ii) reduce the amount of direct contact that election workers have with voters; and (iii) Australia's EMBs have some experience, even if variable, in administering these modalities.

Postal Voting

Postal voting involves the elector receiving their ballot paper by mail at their place of primary residence, where it can be completed without the need to venture to a polling station.

There are generally three types of postal voting:
- *Restricted postal voting*: Limited only to those voters who are unable to attend a polling station on Election Day. Voters have to meet one or more of the stated eligibility requirements under the law and *might* have to sign a declaration attesting to their eligibility.
- *No-excuse postal voting*: The option is available to every voter, but the elector must register their interest prior to the election.
- *Universal postal voting*: Every eligible voter is automatically issued a ballot paper in the mail.

The longstanding use of postal voting at Australian elections makes this a highly viable channel for expansion. Indeed, the EMBs that have administered an election during the pandemic scaled up their postal voting capability.[13] Moreover, while *restricted* and *no-excuse* postal voting are the norm in first and second tier elections, universal postal voting is prescribed for local government elections in several Australian states.[14]

There are, however, three key challenges associated with postal voting:[15] supply chain concerns; ballot secrecy and security, and an elongated election time frame.

Supply Chain Challenges

Postal voting relies on a third party, a postal service, to convey the ballot paper in a timely manner between the voter and electoral authorities. Over the years, and in response to the steady degradation of Australian postal services (Howard *et al* 2015), the reliability of postal voting has been called into question, particularly (but not exclusively) as it pertains to the timely conveyance of ballot papers to regional, remote, interstate and overseas voters.

The challenges presented by the state of the postal service have been further underscored by the Covid-19 pandemic. In the Australia Post's submission to a parliamentary inquiry into its future, it noted that its land and air networks were burdened by the pandemic, adding to the costs of delivery, slowing usual delivery times, while also greatly increasing user demand for their services (Australia Post 2020). In recognition of these challenges, the Morrison Coalition Government announced in May temporary changes to Australia Post services that include adjustments to delivery frequency in metropolitan areas, an extension of its delivery time for regular intrastate letters and shelving its priority letter service (Fletcher 2020).

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[13] See, for example, the federal Eden Monaro by-election (AEC 2020), the Queensland local government elections (ECQ 2020, 5, the Northern Territory state election (NTEC 2020, 4) and Victorian local government elections (VEC 2020)

[14] Tasmania, Northern Territory, Western Australia, Victoria and South Australia provide for universal postal voting for local government elections, although in Victoria, for example, local councils can opt for attendance voting, while in Tasmania, it is the prescribed method.

[15] The likely partisan effects of postal voting have been debated in Australia, but it is in the United States that this matter has proven particularly acrimonious, especially since 2016. This is in spite of the fact that several studies, including one recent study of universal postal voting conducted by Thompson *et al* (2020), which found no evidence that postal voting favoured the Democrats or the Republicans either in terms of turnout or vote share.

Guaranteeing the timely transportation of the ballot paper is especially difficult when electoral authorities are not the only actors involved in organising postal vote applications (PVAs) for electors. When PVAs pass through a third party, such as political parties, it can further delay electors receiving their ballot paper. This, in turn, reduces the time available to voters to complete and return their ballot paper to electoral authorities in time to be included in the count.[16]

The dependence on a third party to transport ballot papers, combined with the parties' intervention in facilitating PVAs, creates credible concerns for elector disenfranchisement. There is little hard data on the number of postal ballot papers that are excluded from the count owing specifically to the actions/failures of third-party actors. But what is known is that there are more PVAs issued than postal votes cast, and thousands of completed postal ballot papers returned after the final cut-off for receipt.[17]

A related problem is that postal voting breaks the chain of custody of the ballot paper. In the case of in-person voting, the elector has possession of the ballot paper from the time that they are handed a blank ballot to the point at which they deposit their completed ballot in the ballot box, with both events occurring under the supervision of polling officials. In the case of postal voting, a third party in entrusted with the delivery and return of the voter's ballot. This renders the ballot susceptible to misdirection, theft and tampering at both the receipt and return phases of its transmission. Protecting the voter's right to cast a secret ballot is also difficult to guarantee.

The administrative procedures attached to postal voting also gives rise to concerns about ballot secrecy and security.[18] A persistent anxiety expressed by some voters is that their anonymity is compromised because of the requirement to sign a declaration certificate attesting to their eligibility, which is returned along with their completed ballot paper (AEC 2019). However, a more significant challenge for many voters is complying with the administrative requirements. Completed ballots must generally be placed within an inner envelope that must be signed by the voter. An eligible voter is also required to witness the voter signing the declaration. If the ballot paper is not placed within the inner envelope and/or the voter and/or witness signatures are missing, the ballot paper is rejected, even if it is otherwise completed correctly. At the 2018 NSW state election, 69% of the 45,100 postal ballot papers were rejected because they were not returned in its inner envelope (NSWEC 2019, 59-60).

The third concern linked to postal voting is that it can lead to delays in finalising the count. This problem arises because of procedural and legal requirements for receipting and processing postal ballots.

- *The cut-off period:* In order to maximise opportunities for postal votes to be admitted into the count, electoral laws will specify a period to allow for the return of postal

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[16] Reflecting on the 2019 federal election, the AEC noted that "[a]pplications received directly by the AEC enable the most timely processing, and provide maximum opportunity for electors to receive and return their postal votes" (AEC 2019, 21).

[17] Statistics compiled by the AEC from the 2016 federal election show that 1,510,640 postal vote applications were issued and 1, 271, 219 postal votes actually cast (84% return rate). Similarly, 4,930 postal votes were excluded because they were received after the prescribed period, and an additional 7,397 postal votes cast after July 2 (AEC 2018:30). Of course, it is not clear in most cases whether this results from voter action or the actions of a third party, and then again if the error was intentional or deliberate.

[18] One Australian elector, for example, had sought to sell their survey at a starting price of $1,500 on eBay (Borys 2017).

ballots following the official close of the polls. Depending on the particular jurisdiction, this period is between five and 13 days following the Saturday election. While most postal votes are returned by Election Day, there are ballot papers received within the prescribed period.[19] In an election where the contest is close, and there is a higher than usual number of postal votes cast, the cut off period can delay confirming the winning candidate in one or more seats and, depending on the closeness of the contest, declaring the final election outcome.

- *Counting postal ballots:* Postal votes take longer to count than other votes. This is because postal votes have to be removed from multiple envelopes, checked, sorted into their correct electoral divisions, and often transferred to their home division for counting. Further hampering timeliness is that many of the statutes that regulate elections in the federation do not permit even the most rudimentary scrutiny of postal ballots to commence until the close of polls.

Addressing Issues Specific to Postal Voting

The problems specific to postal voting cannot be remedied entirely but they can be managed. Actions which can be taken to ameliorate some of these challenges include:

- Prohibit political parties from issuing PVAs where this practice is permitted. The intervention of parties/candidates in this process interferes with the elector's right to receive their ballot in a timely manner.

- Reduce reliance on the postal service by allowing certain categories of voters to request that their ballot paper is sent to an email address. This is also useful in the aftermath of other extraordinary events, such bushfires, when the voter might not have a safe, secure or permanent residence to receive a postal vote.

- Expand telephone and remote internet voting to regional, rural, inter-state and overseas voters. Postal votes received from overseas electors tend to compose the single largest parcel of postal ballots excluded for lateness. Of the 3,140 postal votes that were received following Election Day at the 2019 federal election, slightly more than half - 1,611 - were from overseas voters (AEC 2020, 17). Granting affected voters' access to telephone and remote internet voting options should be regarded as a more suitable solution than bringing forward the deadline for registering for a postal vote because such an action risks disenfranchising electors.

- Establish secure ballot drop boxes in every electoral division so that electors can deposit their completed ballot paper without using the postal service. The ballot drop boxes must be difficult to remove or tamper with, cleared daily, and monitored by security cameras or by security guards. In the US, 34 states have plans to use drop boxes for the 2020 Presidential election, and it is estimated that at the 2016 general election, one in six voters lodged their completed ballot at a drop box (Hufford 2020).

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[19] For example, at the 2016 federal election, of the 1, 223,019 postal votes received by the electoral commission, approximately 19% were received within the 13-day cut off period (AEC 2019a, 17).

- Commence counting of postal votes on Friday prior to Election Day although the results not disclosed until the close of the polls.[20] A second option is to permit a preliminary scrutiny of postal votes prior to Election night (but on Election Day) whereby the declaration certificate and ballot paper are separated, and the ballot papers sorted by division (although not counted).[21] When the official count does commence, the preliminary count of postal ballots should be performed at a central location rather than transferred to its home division for counting in order to conserve time and resources on Election night.

- Allow postal ballots that are not returned within the inner envelope to be counted if they are returned within the prescribed time and the certification signatures (both voter and witness) included with the completed ballot paper.

- Shifting public, candidate and party expectations about the final declaration of outcomes.

The importance of shifting public expectations about the election timeframe is critical, especially if universal postal voting is adopted. Elections administered via a universal postal vote often require EMBs to assume responsibility for ensuring voters receive some information about the candidates, which adds to the time required to prepare postal vote packages. For these and other reasons, an election conducted using universal postal voting has a longer election time frame compared to other forms of voting. [22]

Even if universal postal voting is not adopted, any dramatic expansion in the volume of postal votes at current levels will give rise to delays in declaring the count because some postal votes will inevitably arrive within the cut-off period. At the 2019 federal election, for example, the AEC reported that 1.75% of all postal ballots were received in the cut-off period, delaying the official declaration of some seats until such time as these ballots had been received, processed and counted (AEC 2019a).

It is understandable that the public, candidates and parties wish for election outcomes to be finalised by election night. But even declaring provisional outcomes under "normal" conditions has become increasingly difficult.[23] This is a function of the myriad voting channels made available to electors, the different procedural requirements for sorting, processing and scrutinising (recounting) ballot papers, and also the competitiveness of election contests. For an established democracy, accustomed to peaceful turnover in power, shifting current expectations that (i.) anything other than an indicative outcome might be known by election night, and (ii.) that the official outcome will take several week(s) to declare, need not

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[20] There is a principle that ballots should not be counted before the close of the polls in the event the results are published, and influence electors who have yet to cast their vote. However, there are jurisdictions which do commence counting postal votes in advance of the close of the polls. Both the US states of Colorado and California permit postal ballots to be counted two weeks before Election Day for the Presidential election (Colorado 2020 Election Calendar).

[21] For example, NSW's Electoral Act 2017 allows polling officials to conduct a preliminary scrutiny of the postal vote envelopes/certificates five days prior to Election Day (NSWEC 2019:14).

[22] Consider, for example, the different length of time to conduct an election under universal postal voting and via standard voting. The 2018 Tasmanian Local Government elections were administered using universal postal voting and 54 days transpired from the date of notice to the date the outcomes were finalised. In comparison, the election for the Tasmanian Legislative Assembly that was held that same year, occurred over 43 days.

[23] To read more on the normative and practical considerations associated with the declaration of election outcomes, see Orr (2015).

undermine the legitimacy of the electoral process or the outcome when the institution entrusted to manage the count is impartial and independent of government. This will entail that parties, candidates and EMBs work collectively to assuage public concern that a longer wait for the official declaration of the results is in the best interests of an accurate and inclusive count.

Telephone Voting

Electronically assisted telephone voting involves the elector casting their vote using a telephone device.

This channel is not available in every Australian jurisdiction, and even when it is provided, it is only made available to voters with a visual or mobility impairment which makes it difficult for them to present at a polling station, or to read the names of candidates listed on the ballot paper. At the 2019 federal election, for example, 2,044 voters used this service, representing only 0.01% of all votes cast (AEC 2019, 19).

The procedure for casting a vote via telephone is more elaborate than in-person voting, involving several discrete steps.[24] Electors call to state their eligibility for the service, and then are prompted to provide their last name, first name and date of birth, following which the voter creates a PIN. Once the voter has finished the call, they receive a text message with a registration number. When the elector is ready to vote, they ring the call centre, provide their pin and registration number when asked, at which point the operator reads out the names on the ballot paper and asks the elector to indicate their vote selection.

Casting a vote by phone takes longer to perform compared to other channels particularly when the voter is required to rank order all candidates listed on the ballot paper and there is more than one ballot paper to fill out. A review of the ECQ's procedures for telephone voting makes clear why voting by phone takes longer to perform under these conditions. The phone operator must first authenticate the voter, the operator must also "explain the voting process to the elector" and that prior to taking a vote, the operator must read out verbatim all the names of the candidates and any political party affiliations in the order that they appear on the ballot paper, and provide voting instructions. The elector then casts their vote by notifying the telephone operator of their preferences (ECQ 2019, 2-3).[25]

From an operational perspective, telephone voting is also labour intensive to administer, requiring two separate call centres (to protect voter anonymity) and typically three operators to record a single vote. One operator is assigned to facilitate voter registration, a second operator (located in a different call centre or area) who records the vote, and a third operator who is assigned to listen to the call to verify that the vote is being recorded as per the elector's instructions. This is not only financially costly, but it places operators recording votes at risk if they are required to sit in close proximity to one another.

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[24] For further detail, see the *Australian Electoral Industry Standard* (2011).
[25] The AEC reported a reduction in the number of electors who voted by telephone between the 2013 and 2016 federal elections. The AEC accounted for this by the fact that the "increase in the number of Senate candidates made telephone voting in the larger states more onerous. The list of candidates is read to voters by an AEC staff member, and in Queensland, New South Wales and Victoria there were over 100 candidates in the Senate, taking up to 20 minutes" (AEC 2018:98).

Addressing Issues Specific to Telephone Voting

Telephone voting does, however, have certain strengths. First, telephone voting uses a device that most voters own or have ready access. While the number of households with fixed landlines has declined over the previous decade, nine out of every 10 Australians own a smart phone (Deloitte 2019, 2). Secondly, and compared to postal voting, telephone voting does not depend on a third party to transmit a physical ballot between the voter and electoral authorities. Thus, there are fewer concerns about "lost" or "late" ballots. Thirdly, electors who vote by phone can be permitted to register to cast their vote up to, and including, Election Day. At the Queensland 2020 local government election, voters could register for telephone voting until midday on Election Day. This compares to PVAs that had to be received by the ECQ 12 days prior to Election Day.

While it is not feasible to make telephone voting available to all voters, there is a compelling case to extend access to this channel to rural, remote, inter-state and overseas voters. To do so will require an increase in the number of telephone operators and terminals. There are clear indications that there is likely to be strong voter demand for telephone voting if offered,[26] as was apparent at the Queensland local government elections (Stone 2020). The ECQ had initially provided for 16 operators to cater for an expected 500 telephone voters but owing to a surge in registrations, the ECQ employed 160 staff who recorded 37,000 votes (i Coma 2020; ECQ 2020, 4).

There might be a technological solution to reduce the time it takes to record a telephone vote for people who need this service but who do not have a visual impairment or low vision. It might be possible to enable a video audio call that permits the elector to view the ballot paper while still ensuring that neither the voter nor the operator can be seen by one other. This would enable the elector to (i) witness their vote being recorded; (ii) their ballot paper submitted; and (iii) reduce the time that is taken to complete the ballot because the voter is able to read for themselves the names on the ballot papers, as opposed to having to rely on the operator reciting the names of candidates *if this is not otherwise required by the voter*.

Remote Internet Voting

Remote internet voting involves casting a vote using a device, such as a smart phone, computer or tablet, with an internet connection. The vote is transmitted over the internet to a central vote server that tabulates a vote count. Remote internet voting is different from voting machines (or computer voting terminals), whereby voters cast their vote at a polling station on a closed system machine, or onto paper which is then scanned for counting.

Of the three options canvassed in this working paper, remote internet voting is "the most difficult technological upgrade for an EMB, as it touches upon the very core of the entire electoral process" (IFES 2020a, 1). And for many experts and commentators, remote internet voting poses the greatest existential challenge to elections, on the grounds that it reduces the act of voting as equivalent to any other (routine) transaction that citizens perform online.

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[26] The VEC reported that the introduction of remote telephone voting in 2018 led to a dramatic increase in its use by those entitled to access the channel. In their report on the 2018 Victorian state election, it was noted that "….1,199 electors used TAV – an increase of 1,000 compared to users of the in-person system provided within Victoria at the 2014 State election" (VEC 2019, 59).

Concerns about the safety and reliability of remote internet voting is reflected in its limited application around the world. The availability of remote electronic voting for national elections beyond pilot schemes remains extremely limited. Some countries, such as Britain, did not pursue its implementation following trials, while several other countries adopted it only to discontinue its use (IFES 2020:4). Closer to home, New Zealand explored its use for the 2016 and 2019 local government elections, however neither trial went ahead, ostensibly on cost grounds (Molineaux 2019).

Only two countries currently provide for internet voting for national elections. Since 2002, Estonia has allowed any citizen to vote via the internet. Internet voting has also been employed in elections for the national parliament, four Local Government Elections and two European Parliament elections. For the July 2020 Russian referendum, voters in the two regions hit hardest by Covid-19, Moscow and Nizhny Novgorod, had access to a remote internet voting option (Hardy 2020).[27]

Remote internet voting has been implemented for state elections in NSW and Western Australia (WA) where its availability is confined to restricted classes of voters. It was first introduced in NSW in 2011 to assist blind and sight impaired voters, voters with other disabilities, voters living more than 20 kilometres from their nearest polling place, and voters who were out of the State on polling day. At the 2018 state election, approximately 235,401 votes were cast using *iVote*.

In WA, remote internet voting was used for the first time at the 2017 state election. Access to the service in the state was extended to many of same categories of voters as in NSW but not those outside of the state on polling day. 2,288 votes were cast using the internet voting system (WAEC 2017, 21).

In 2017, the Victorian Electoral Matters Committee expressed in-principle support to remote voting for a limited category of voters for Victorian state elections, a recommendation supported by the Daniel Andrews Government.

Remote internet voting provides certain benefits generally, and for conducting an election during a pandemic more particularly:

- It offers an entirely remote option for the voter and a near remote option for election workers, while also reducing the number of election workers required to facilitate the election.

- It is not exposed to the supply chain problems of postal voting because the ballot is delivered and returned to the voter electronically.[28]

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[27] The successful implementation of remote internet voting requires that the voter has confidence that the state, external actors, nor non-state local actors will be able to manipulate the system (Hardy 2020). In Russia, trust in the state to conduct the vote in an impartial manner is extremely poor. The independent Russian voting monitor, Golos, noted significant concerns with the 2020 constitutional referendum (Spinella 2020; GOLOS 2020). For an overview of the problems associated with the use of e-voting in Russia, see O'Neal (2020).

[28] Michael Maley (2020, 16) notes that even complex technological systems can be affected by pandemics. He writes that: "[m]ajor automated systems, typically being used nationwide, still have to be operated and maintained by IT support teams, and the systems are often complex, specialised ones of which scant knowledge may exist outside the commissions themselves, supporting time-critical activities". Thus, if critical personnel fall unwell during a pandemic, these systems could be compromised.

- Compared to postal voting, remote internet voting offers strengthened protections for the secrecy of the ballot. Goldsmith (2013) notes that:

  "Several countries now allow repeat voting over the Internet; voters are able to cast their votes online as many times as they wish. Only the last vote cast is counted. Another mechanism to protect against voter coercion is to allow Internet voters to cast a paper ballot in a polling station and to guarantee that any paper ballot cast will be counted, invalidating the voter's Internet ballot. Both measures mean that anyone coercing a voter while casting a ballot over the Internet cannot be sure the coerced vote will be the one counted."

- It permits a quick tabulation of election results, and also improves the speed and reliability of casting ballots when the system is secure. Hence, the outcome of an election can be declared much more quickly than is the case for any other existing modality.

- Its implementation can lead to an eventual simplification but also reduction in the costs of holding an election in the medium term.

There are high initial start-up costs associated with new procurement, training, public awareness campaigning and security, and also system maintenance. As a result, it can "take several election cycles to achieve" cost savings once implemented (Applegate *et al* 2020, 1). This has been borne out in a recent study conducted by Kimmer et al (2020) which analysed the costs of remote internet voting in Estonia. The authors' found that: "*The cost of casting a vote over the internet was lower than traditional election day voting—the second cheapest option. Early and advance voting in county centres are more expensive due to their lengthier duration and the comparatively low numbers of participants that used these channels*" (Krimmer et al 2020, 6). Hence, there are potential cost savings with remote internet voting over the longer term because it permits the disbandment of other convenience voting channels, which add greatly to the costs of conducting elections.

Addressing Issues Specific to Remote Internet Voting

While remote internet voting is promising, it does generate two particular problems for election integrity and election management. The first concerns can be broadly filed under the label of cyber espionage.[29] State and non-state actors, motivated by a varied array of malicious objectives, can seek to sabotage an election. This can cause a compromised outcome if a successful cyber-attack is achieved. Moreover, because a recount is difficult to undertake with remote internet voting systems, disputes over the outcome might prove difficult to resolve, even when count data has been published (Applegate 2020, 10). And even if there have been no attempts by malicious actors to infiltrate the system, the mere hint of irregularity can undermine the perceived legitimacy of the outcome.

The second challenge of remote internet voting is that it requires significant investment in specialist expertise to establish and to maintain. While Australia's EMBs have been modernising and integrating more complex technology into their operating systems, remote internet voting systems require hefty financial investment in the EMB's IT capacity. It also

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[29] Elections ACT (2020, 5) rejected this as an option for its 2020 Legislative Assembly election, citing "substantial complexities and extremely high risks, including significant cyber risks" to pursue an online voting option.

entails shifting the profile and training of election personnel to include persons with IT expertise and knowledge of cyber security threats and governance.

For these, and other reasons, remote internet voting cannot be reliably offered to voters at short notice if the infrastructure and skills do not already exist within the EBM.[30] The safe implementation of remote internet voting can only be done once a rigorous feasibility study has been conducted, a gradual and careful integration of the system implemented, the new platform trialled by a small number of voters, and, finally, once a comprehensive public education campaign to prepare voters for its implementation has occurred. Hence, the only way that remote internet voting could conceivably be implemented by any Australian EMB quickly is by adopting or expanding access to a system that is already in use in Australia, which is *iVote*.

iVote?

While *iVote* is subject to regular review, evaluation and updating by the NSWEC, the platform is not without limitations. Among those who have expressed criticism of *iVote* are computer scientists Chris Culnane, Vanessa Teague (both Melbourne University) and Rajeev Gore (ANU). In their submission to a review into the *iVote* system led by Roger Wilkins (2018), Culane *et al* argued that *iVote* fails to safeguard privacy, produce a count which is verifiable, and has proven consistently vulnerable to security defects, even following the re-fresh of the *iVote* system ahead of the 2018 NSW state election. They contend that remote internet voting is sub-optimal more generally, being the least secure of all of the available voting channels.

Others are supportive of remote voting and *iVote*, in spite of its flaws. Ian Brightwell, an IT election specialist, contends that, for now at least, *iVote* should be maintained (2017). Brightwell does not, however, advocate for *iVote's* extension beyond restricted categories of electors.

Ronald Wen and Richard Buckland, both at the University of New South Wales, agree with Brightwell that *iVote* "is not fit for the purpose of electronic voting at scale". They write that underpinning the vulnerabilities and failures of this system is that it has been "designed, built and deployed at the quality and security standards of commercial software systems rather than as critical sovereign infrastructure" (2019, 1). They recommend that for remote internet voting to be extended:

> *"A new e-voting system should be developed based on a national approach. This e-voting system should be designed to be suitable for secure long-term large-scale use. Close and ongoing engagement with experts and federal agencies with advanced capabilities (such as the Australian Cyber Security Centre) should be harnessed to ensure the new system is designed, built, tested and operated according to four pillars of best practice for election technology"* (Wen and Buckland 2019, 2).

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[30] Certainly, this was something encountered by the ECQ with their EMS: "the COVID-19 global pandemic affected the capacity of the vendor to undertake new software development through its international subsidiary companies from early January 2020 onwards, a critical time period for delivery of the project. As a result, deadlines for delivery of critical functionality were directly impacted (ECQ 2020, 9). As Michael Maley observes: "If a key member of the support team were to fall ill at the wrong time (giving rise to a possible need for other team members to be hospitalised or quarantined), the successful operation of the systems could be seriously threatened".

While *iVote* is not widely regarded to be sufficiently robust to be used either at scale or outside of those jurisdictions that have already implemented it, investment in the development of remote internet voting system should be pursued for future use. Any such platform should, however, be developed as part of a nation-wide approach, in the vein recommended by Roger Wilkins in his report on the NSW iVote system. Wilkin's proposed the creation of "a platform that could be used in any jurisdiction" and which should be "jointly owned and maintained" (2018, 2). A national approach has the benefit of reducing the start-up and maintenance costs associated with the development of a new platform and it will allow "better utilisation of knowledge at a national level about cyber security – both the threats and positive mitigation. It also has the advantage of creating national standards on security and integrity that would be observed uniformly across all Australian elections" (Wilkins 2018). A nation-wide approach has been endorsed by *Electoral Council of Australia and New Zealand* (ECANZ) since 2013.

Conclusion

During times when it is unsafe for voters and election workers to venture outside of their home and/or congregate in public spaces, demand for remote voting modalities is likely to surge. Yet, most of the available forms of remote voting in Australia are not feasible at scale at the present time. The extension of telephone voting beyond a select voter group is unviable when ballot requirements are complex and onerous. Thus, in settings which use full preferential voting and/or require the completion of more than one ballot paper, telephone voting is too time consuming to be made available to all voters. However, it should be granted to voters in regional and remote areas, and inter-state and overseas voters who otherwise might have to rely on postal voting. Remote internet voting is a promising modality but given the security concerns associated with *iVote*, the expansion of its use outside of existing jurisdictions, and beyond limited categories of voters, is unsafe. Of the three forms of remote voting considered here, only postal voting is sufficiently robust for use at scale. Australia's EMBs have an established record of administering postal voting and many (although not all) of the concerns associated with it use can be better managed if administrative and legislative changes are permitted.

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