**Submission No 13**

# ADMINISTRATION OF THE 2019 NSW STATE ELECTION

**Organisation:** Vision Australia

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Vision Australia

Blindness. Low Vision. Opportunity.

# Vision Australia Submission to NSW Joint Standing Committee on Electoral Matters

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# Introduction

Vision Australia makes this submission to the NSW Joint Standing Committee on Electoral Matters pursuant to the Committee's inquiry into the administration of the March 23 2019 NSW election. We hope that our comments will assist the Committee to develop recommendations for the ongoing evolution, resourcing and use of iVote in future NSW elections, and to put effective processes in place for ensuring that the accessibility and usability of the iVote platform remains fundamental to its design.

Vision Australia has been an enthusiastic supporter of the iVote platform since it was introduced in the NSW election of 2011. The three options that form the iVote suite (automated telephone, online and human-assisted call centre) provide almost all people who are blind or have low vision with a way of casting a secret, independent and verifiable vote for the first time in Australia's history (although the human-assisted call centre option does not provide a truly secret vote, it is nevertheless a valued component of iVote, especially for people who have recently acquired a vision loss and who are not yet comfortable with using other technologies). A number of other Australian jurisdictions have either adopted, or are considering adopting, the iVote system with its three voting options, since it is regarded as the "gold standard" in accessible voting. When iVote has been extended to other categories of voters, such as those who will be travelling overseas on polling day, our impression is that it has been well-received and increasingly utilised. We would like to see iVote incorporated into the processes for local government elections, so that eligible voters who are blind or have low vision can also have equal access to voting in those elections.

There was an approximately eightfold increase between the 2011 and 2015 NSW elections in the number of iVote users who are blind or have low vision. However, our understanding from discussion with the NSW Electoral Commission (the Commission) is that there was a drop in iVote usage by voters who are blind or have low vision in the 2019 election. We address the decline in numbers in detail below, because we believe not only that it can be fully explained by shortcomings in the way iVote was developed and deployed in the 2019 election, but also that there will most likely be a continuing decline in numbers if these deficiencies are repeated in future elections. We emphasise that our comments relating to iVote focus exclusively on how it is perceived and used by people who are blind or have low vision, and are not necessarily applicable to or shared by other groups of iVote users.

# Factors Affecting iVote Usage

The 2019 election was only the third time iVote had been used in NSW state elections. In other words, the 2019 election was only the third time that blind or vision-impaired voters had been able to cast a secret, independent and verifiable vote. Many adults who have previously not been able to exercise this democratic right are, naturally enough, still uncertain about whether iVote will become a permanent and hence predictable feature of NSW elections. There is a strong tendency for people to feel that if they do not receive or become aware of specific promotional material, then it must mean that iVote has been discontinued, and that it will be necessary to rely on friends, family, and polling booth staff to assist them vote, as they were compelled to do until iVote was introduced in 2011. While iVote usage numbers apparently dropped significantly in 2019, we are not aware of any suggestion that the number of votes cast by people who are blind or have low vision has also dropped, lending credence to this view.

The key to increasing and even maintaining iVote usage numbers is extensive promotion. Vision Australia and other organisations undertook a range of activities designed to promote the benefits of iVote in both the 2011 and 2015 elections, and we have no doubt that the extent of the promotion we were able to undertake was largely responsible for the initial positive uptake and subsequent exponential increase in iVote usage among voters who are blind or have low vision.

Of course, no amount of promotion will be enough to mitigate the effects of bad experiences at any stage of the entire iVote process. If voters encounter significant accessibility issues with any of the iVote components, they will be less likely to use the platform in future, or recommend it to others. In both the 2011 and 2015 elections, there were relatively few reports of such issues, and overall there was a very high level of voter satisfaction with the accessibility and usability of the three iVote components. The issues that were reported were generally not perceived as fatal to the success of iVote, and certainly did not detract from the benefits that iVote was judged as providing.

# iVote in the March 2019 Election

Based on our experiences with the 2011 and 2015 elections, Vision Australia expected that, once again, we would be able to promote iVote extensively to people who are blind or have low vision. We have various complementary avenues for promotion, including email discussion lists, client newsletters, social media channels, and interviews on Vision Australia radio. In 2015, we also arranged face-to-face client groups where staff from the Commission provided detailed information and answered questions about every aspect of iVote. We are confident that through these various methods we are able to reach the majority of our clients in NSW who are eligible to vote.

Unfortunately, the opportunity for us to similarly promote iVote prior to the 2019 election was curtailed due to significant accessibility issues with the online component of iVote that were only remediated to anything like a satisfactory level a couple of weeks before the election.

Vision Australia's Digital Accessibility team were contacted by the Commission in early October 2018, and asked to undertake accessibility and (subsequently) user testing of the online iVote system. There was an expectation that the system was already reasonably accessible, and that fine-tuning this accessibility would be all that was required.

The online iVote system comprised seven distinct modules, each covering a different aspect of the iVote process (registration, casting a vote, verification, etc.), and these modules were linked together to provide an end-to-end experience for voters using the system. When Vision Australia's Digital Accessibility team undertook initial accessibility testing, they found that none of these modules were accessible to people who are blind or have low vision, and they concluded that extensive changes and considerable additional development work would be required before these modules individually, and the system as a whole, would comply with accessibility standards and be usable in practice.

It is important to emphasise that technical accessibility and real-world usability are closely interrelated, but not equivalent. Technical compliance with accessibility standards (most commonly the Web

Content Accessibility Guidelines developed by the World Wide Web Consortium) is necessary, but not a sufficient, condition for optimal usability. To give an example: a sighted person views an entire web page at a glance, noting the various elements such as links, headings and text. By contrast, a person who is blind or has low vision and who therefore uses screen-reading or screen-magnification software navigates a web page line by line, or in some cases element by element. It generally takes much longer to assemble a "cognitive map" of the page in this way, and to develop an understanding of how to interact with it. Given that users only encounter the iVote internet option once every four years, it is absolutely essential that it is tested by users who are blind or have low vision so that the content can be presented meaningfully in a way that allows users to interact with it efficiently, and with confidence that they are voting according to their intentions.

From our perspective, the process of remediation became much more time-consuming because we had little direct contact with the overseas developers of the iVote platform. We liaised directly with the Commission, who liaised with the developer, who liaised back with the Commission, who relayed information back to us. This process inevitably introduced both delays and misunderstandings and was not, in our view, the most efficient or effective way to develop and implement the changes that were required to make the iVote system accessible and usable.

Our Digital Accessibility team arranged the first round of user testing in late October 2018, after quite a bit of work had been done to address the raft of accessibility issues that had been identified earlier that month. Through that testing, it became clear that it was still virtually impossible for a blind or vision-impaired user to cast a vote using the online iVote option, and that considerable development work was still required before the system could be regarded as accessible and usable. Even after more work had been done, we found that some users were not able to accurately identify the candidates they were voting for, and therefore would have made voting choices that they did not intend to make.

Until we were sure that the online iVote option could be used effectively and accurately, we were not able to promote it. We had no involvement in testing either the automated telephone or human-assisted call centre options, but promoting only one or two of the iVote components would have created much confusion and uncertainty.

It was not until very close to the March election that we were confident that the iVote online component would be usable, although even at this point the system as a whole had not achieved technical compliance with the Web Content Accessibility Guidelines. We provided information about iVote through email discussion lists and our social media channels, but it was too late to undertake the extensive promotion that we had in 2011 and 2015.

Our strong recommendation is that the Commission engage with web accessibility and user testing consultants such as Vision Australia much earlier in the election cycle, at least nine months prior to the election, and that if the iVote platform undergoes major redesign, that such consultants be involved from the outset of that redesign.

# User experiences with iVote in the March 2019 Election

Vision Australia has collaborated with Blind Citizens Australia and Guide Dogs Australia in providing consolidated iVote user feedback to the Commission following the March 2019 election. Overall, and

notwithstanding a few operational issues (which we have taken up with the Commission), there was satisfaction with the automated telephone and human-assisted iVote options. As might be expected from the previous discussion, there was more dissatisfaction with the online component. Some of this dissatisfaction resulted from accessibility-related issues that could not be remediated in time for the election, some resulted from unforeseen issues such as iVote system crashes, and some resulted from issues that are related to security aspects of the iVote system.

# iVote and security

Since iVote was introduced in 2011, the cyber-security landscape has become much more complex, and security concerns now play an increasing role in online systems generally. Best practices in the choice of passwords have evolved, two-factor authentication is now the norm for many online processes, and there is unprecedented awareness of the impact that malicious actors can have in the online environment.

We recognise that the viability of the iVote system depends in no small measure on the extent to which it remains secure and tamper-proof despite the increasingly sophisticated methods available to individuals and groups who might attempt to steal data or interfere in election processes.

Nevertheless, we emphasise that a fundamental aim of iVote is to provide a way for people who are blind or have low vision to exercise their democratic right to a secret, independent and verifiable vote. We also note that no system – not even a paper-based one – is, or indeed can be, 100% secure. The need for adequate security must be carefully and constantly balanced against the need for a system that is usable and fit for its intended purposes. We are not aware of any reasons why a system that complies with accessibility standards and incorporates a high degree of usability cannot also meet contemporary security requirements. It is essential, however, that security and accessibility/usability are considered together from the outset of system design, and that security is not achieved at the expense of accessibility and usability. A mistake that is all too often made is for system developers to regard accessibility/usability as an optional extra that can be “bolted on” to a system after all other components, including security, have been finalised. The usual consequence of this misguided approach is increased development cost combined with suboptimal accessibility and usability.

Some of the issues reported to us by blind or vision-impaired voters attempting to use the iVote online component relate to security elements that had not been designed with due regard for accessibility and usability. For example, there was a “session time” limit that automatically terminated a voting session after 90 minutes with no way to extend it and with no way to save the data that had been entered. Some of our clients reported that they were either unable to submit their vote because they could not complete their vote within the time limit, or else they had to scramble to complete their vote without being able to give due consideration to their preferences. During the user testing phase, our recommendation was that there be a way for a user to extend their voting session after receiving a warning that it would shortly expire.

Some users also reported that they were prevented from casting their vote because of an inaccessible Captcha that they were required to solve prior to submitting their vote. We understand from discussions with the Commission that this was a technical glitch, and that a Captcha was intended to be displayed

only in rare and specific circumstances. There should, however, have been a “backstop” available even in those rare circumstances for anyone who was unable to complete the Captcha due to factors such as blindness or vision impairment. It is well-established and widely known that Captchas present significant accessibility barriers to a number of user groups, including people who are blind or have low vision, and incorporating alternatives is an important part of the design of accessible and usable systems.

If a voter wanted to verify their vote which they had previously submitted using the online component, they were required to scan a QR code using an app on a separate device such as an iPhone. This was a new security feature introduced in the 2019 election, and we do understand the reasoning behind the extra safeguards it provides. The app did include some accessibility features that assisted a blind or vision-impaired voter to scan and submit the QR code if they wished to verify their vote, but the app had not been designed in compliance with accessibility guidelines (such as those developed by Apple for accessible iPhone apps) therefore it did not provide a level of accessibility and usability that we would regard as acceptable.

The essential point about these three security-related accessibility issues is that they could all have been satisfactorily addressed if there had been earlier involvement of web accessibility and usability experts such as Vision Australia’s Digital Accessibility team. For example, the inclusion of a feature to extend the session time would have significantly enhanced the usability of the online component; if the verification app had been designed in compliance with accessibility guidelines it would have been easier for blind or vision-impaired voters to use; and if there had been an alternative to the inaccessible Captcha those users who, for whatever reason, did encounter it would not have been prevented from voting.

It is also worth noting that the impact of the requirement for a separate verification device is likely to be greater for people who are blind or have low vision than on the general voting population. Because of factors such as cost and varying levels of accessibility in different devices, many people do not have more than one smartphone, so if they choose to vote online using their smartphone, they will be unable to verify their vote as they will not have access to a second device. If a voter regards verification as important for them, then they may, in these circumstances, elect to vote in another way (such as by using the automated telephone system, or by using a PC to vote online and then verifying it using their iPhone), but they need to know in advance what the impact of the various scenarios will be, and this raises again the importance of promotion and the need for early involvement of accessibility consultants so that promotional material can be finalised and distributed well in advance of the election.

# Access to candidate information

While the introduction of iVote has transformed the NSW election process for voters who are blind or have low vision, there is still a gap in providing candidate information in accessible formats. In particular, how-to-vote cards are largely inaccessible. The Electoral Act 2017 (the Act) introduces provisions that allow for technology-assisted voting (such as iVote), but ` of the Act retains the traditional definition of how-to-vote cards as printed information only (cards, posters, handbills). There is no provision or requirement in the Act for how-to-vote cards to be provided to the Commission in a format that is, or can be made, accessible to voters who are blind or have low vision. We assume that the widespread distribution of such cards, especially on polling day, is a reflection of their actual usage by voters, so we think it is reasonable to conclude that many voters who are blind or have low vision and who do not

have access to these cards are missing out on an important opportunity that is valued by other sections of the community (including political parties).

More generally, there has been a very disappointing response from candidates and political parties to the repeated calls we have made over the years for them to provide electoral material in formats that are accessible to blind or vision-impaired voters. We commend the Commission for the proactive work it has undertaken in promoting the importance of accessible information, but so far, there is little evidence of any serious engagement by the major parties.

We believe that if the Commission website is seen as a portal for providing information about elections, including information supplied by candidates or parties, then that information must be accessible to everyone. We therefore ask the Committee to recommend that the Act be amended to include requirements relating to the provision of accessible information by election candidates and political parties.

# Conclusion

In this submission, we have focussed on issues relating to the development and deployment of iVote in the March 2019 election. Despite some non-trivial accessibility and usability issues with the online component, we remain convinced that iVote represents the most significant improvement in access to the electoral process for voters who are blind or have low vision that has occurred in the past 100 years. It is pleasing that NSW is leading the way in this work, and we hope that iVote will continue to improve and evolve, and that fewer accessibility, usability and operational issues will occur with each future election.

We especially draw the Committee's attention to the value of the suite of iVote options: the availability of all three options (automated telephone voting, online voting, and human-assisted voting) maximises choice and control for all blind or vision-impaired voters, supports the diverse needs of that community, and ensures that people who are blind or have low vision are able to exercise their democratic right to participate in the electoral process in the same way as the rest of the community.

We are keen to continue our collaborative and productive engagement with the NSW Electoral Commission, and are happy to assist the Committee in whatever ways we can as it proceeds with its inquiry into the administration of the March 2019 election.

# About Vision Australia

Vision Australia is not-for-profit organisation and a leading national provider of blindness and low vision services in Australia. We work in partnership with Australians who are blind or have low vision to help them achieve the possibilities they choose in life.

We support more than 25,500 people of all ages and life stages, and circumstances. We do this through our 26 Vision Australia centres in Victoria, New South Wales, the Australian Capital Territory, Queensland, South Australia and Western Australia; and through outreach programs in the Northern Territory and Tasmania.