



from new south wales to wales, uk

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forewords

areeq chowdhury dr george theodorakopoulos professor mark ryan dr david galindo

Areeg Chowdhury

It is great to see the Welsh Government taking the initiative to look afresh at how the democratic process can be made more engaging, inclusive, and modern. The incoming devolution of power over elections presents a great opportunity for Wales to lead the way on creating a democracy fit for the 21st century, and a democratic system that countries across the world can learn from.

Over the past few years, WebRoots Democracy has been undertaking research on the potential benefits and challenges of remote online voting and we are pleased to share this research as part of the consultation. As outlined in this document, the citizens who will benefit the most from this reform are those with vision impairments and other disabilities. Currently the system does not allow these voters to cast an independent, secret ballot; a human right under the UN Convention on the Rights of Persons with Disabilities, which the UK is a party to.

Alongside them, the other main beneficiaries will be young people and Welsh families who are living or working overseas. First time voters in the 2021 Welsh Assembly elections will be the first generation of voters born in the 2000s. They will not recall a world before smartphones and social media. As time goes on, a digital democracy will become an expectation instead of an aspiration. It is time we looked at how best we can bring this about and online voting will play an important part of that.

As with most reforms, it does not come without its challenges. Cyber-security is a pressing issue when it comes to the introduction of an online voting option. We therefore recommend proceeding with pilots of the technology alongside our proposed project on certification, so that we can get a clearer picture of what is required for an accessible, user-friendly, and secure online voting platform. Online voting has huge potential, and with the world focused on the integrity of electronic voting systems in the USA and elsewhere, today represents the best time to explore this ourselves here in the UK.

Areeq Chowdhury

Chief Executive, WebRoots Democracy

Dr George Theodorakopoulos

In the Welsh Government Digital Action Plan 2017-2020, a clear and ambitious vision is expressed for Wales that by 2020, digital will be 'at the heart of policy and strategy, contributing to all business processes and objectives' and for digital culture to be 'agile, user-centred, innovative, and responsive.'

In a democracy, nothing is closer to the heart of policy and strategy than the electoral process itself. Wales' digital transformation cannot be complete if online voting is unavailable as an option to the electorate. Empowering Welsh citizens cannot be limited to comparing energy prices online. Wales is right now in a unique position to be a Western European pioneer in digital democracy, and the government is the only body that can rightfully enable this change.

However ambitious and transformative online voting may be, it is also fraught with risks. Beyond defending against the unfortunately commonplace data breaches and attacks against computer systems, large and small alike, online voting additionally needs to ensure ballot secrecy and enable voters, who are not security experts, to verify that the election process was not tampered with. Concrete and quantitative guarantees are needed to ensure voting privacy and accuracy of the voting outcome.

Initial trials in Australia and Estonia gave promising signals that the technology is maturing. Wales can now play a key role in shaping the future of this simultaneously digital and political transformation.

Dr George Theodorakopoulos

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Many benefits would be realised if citizens could vote online. For example, disabled voters (currently often unable to vote except by proxy), military personnel posted overseas, and other expatriates, would be able to vote with more convenience. The recent UK experience of allowing online registration suggests that turnout would improve too. However, online voting comes with risks as well. It is hard to make online voting systems secure. The challenge of doing so is greater than in other areas (such as banking and commerce), because of the requirement of ballot secrecy. Moreover, in voting it is not possible to rectify mistakes later (while in banking, if fraud is later uncovered the affected parties can be refunded).

Researchers in online voting have identified voter-verification as a significant mitigation of the possibility of cyber-attacks that aim to affect the outcome. Voter verification means that voters have the ability to independently verify that their vote was counted, that only eligible votes were counted, and that the declared outcome is correct. These three aspects of verification, in combination, means that any voter can obtain evidence that the election was fairly conducted

and that the outcome is valid. Moreover, this evidence is independent of the hardware and software used to run the election. So if that hardware or software is compromised, this fact will be detected by voters and observers that examine the evidence.

Technologies to fully realise this notion of voter verifiability are still under development. They have been used for professional association elections and university elections, and now they are beginning to be used for large-scale political elections in Estonia and in New South Wales, Australia. We believe that Welsh Assembly elections would be an appropriate place to trial them in the UK.

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executive summary

purpose and background recommendations key findings

executive summary

Purpose and background

As a result of the Wales Act 2017, the Welsh Government has been devolved powers over transport, energy, income tax rates, and electoral arrangements. Following this, the Welsh Government has launched a consultation on electoral reform in local government, which this document is in response to.

One of the questions set out in the consultation is:

"Should remote voting be enabled at local elections?"

This document is in response to this question and makes the case for piloting remote online voting in elections across Wales. It does not make the case for electronic touch-screen voting machines within polling stations. Many of the potential benefits of electronic voting can only be realised with remote online voting, by way of voting on a smartphone, tablet, laptop, or PC.

This report highlights much of the research undertaken by WebRoots Democracy since May 2014 which can be accessed at webrootsdemocracy.org/online-voting.

Recommendations

- The Welsh Government should commence pilots of remote online voting option in local council and Welsh Assembly elections within the next five years.
- Pilots of online voting should be undertaken alongside the development of an online voting certification framework.
- In order to obtain the benefits of electronic voting, the Welsh Government should proceed with pilots of remote online voting and not stand-alone electronic voting machines.

Key findings

Voter turnout in Welsh local council and Welsh Assembly elections over the past 15-20 years have failed to reach or surpass 50%. As well as being a mechanism that could lead to higher voter turnouts, online voting would provide a more accessible voting channel for young people who are digital natives, disabled and vision impaired citizens, and citizens who are overseas on polling day.

Whilst in the short-term, the introduction of an online voting would increase election administration costs, in the long-term, savings could potentially be made as a result of fewer postal votes being required as well as reduced demand for polling stations and count staff. It is a reform that is generally supported by the British public according to a number of opinion polls in recent years.

In order to provide transparency and clarity over the system, these pilots should be undertaken alongside the development of an online voting certification framework.

About this version

This is an archived, second edition version of From New South Wales to Wales, UK. The formatting of this version differs to the previous edition published in 2017, however the content remains the same.

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Welsh election turnouts

With the exception of UK parliamentary elections and the 2016 EU referendum, voter turnouts in Wales over the past 20 years have struggled to surpass 50%. These figures are outlined in the tables and graph below. They are turnouts in Wales only.¹

National Assembly of Wales

Year	1999	2003	2007	2011	2016
Turnout (%)	46.3	38.2	43.7	42.2	45.3

Local council

Year	2004	2008	2012	2017
Turnout (%)	42	44	38.9	42

European Parliament

Year	1999	2004	2009	2014
Turnout (%)	29	41.4	30.4	31.5

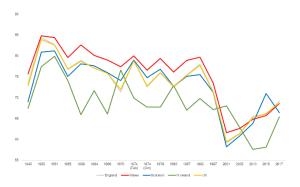
Referenda

	Year	1997 Devolution Referendum	2011 Devolution Referendum	2011 Alternative Vote Referendum	2016 European Unio Referendum
ſ	Turnout (%)	50.2	35.2	41.7	71.7

UK Parliament

Voter turnouts in UK general elections have been following a downward trend in the post-war period. Turnout in Wales peaked in 1950 at 84.8% and was as high as 78.9% in 1987. Over the past 20 years, turnouts have been on an upward trend, but have still only peaked at 68.6% in the most recent General Election. Throughout this period, however, Wales has had some of the highest voter turnout rates compared with the rest of the UK.

Year	1945	1950	1951	1955	1959	1964	196
Turnout (%)	75.7	84.8	84.4	79.6	82.6	80.1	79
Year	1970	1974 (Feb)	1974 (Oct)	1979	1983	1987	199
Turnout (%)	77.4	80	76.6	79.4	76.1	78.9	73.
Year	1997	2001	2005	2010	2015	2017	
Turnout (%)	73.5	61.6	62.6	64.8	65.7	68.6	



Beneficiaries of online voting

Young people

Although significantly lower than the 72% reported by various media outlets immediately after the vote, the 54% youth voter turnout in the 2017 General Election was a departure from previous trends.² Up until then, voter turnout amongst young people aged 18 to 24 has been below 45%. At the other end of the age scale, over 70% of those aged 65 and over have voted in the past three elections. In 2015, 78% of those aged 65 and over voted compared to just 43% of those aged 18 to 24.

2001	2005	2010	2015	2017
General Election	General Election	General Election	General Election	General Election
39	37	44	43	54
46	49	55	54	55
59	61	66	64	56
65	65	69	72	66
69	71	73	77	71
70	75	76	78	71
	General Election 39 46 59 65 69	General Election General Election 39 37 46 49 59 61 65 65 69 71	General Election General Election General Election 39 37 44 46 49 55 59 61 66 65 65 69 69 71 73	General Election General Election General Election General Election 39 37 44 43 46 49 55 54 59 61 66 64 65 65 69 72 69 71 73 77

Many of the first time voters in the 2022 General Election will have been born in 2004 and are unlikely to recall a world before smartphones and social media. Tasks such as shopping, banking, and communication will be digital by default for much of this generation. For them, smart, digital methods will be the norm and expectation. Young people no longer turn towards dictionaries and encyclopaedias for information but towards Google and Wikipedia. In a world of email and instant messaging apps, it is unlikely that many of the younger generation of today and tomorrow will have posted a letter in their lives, and those that have will have done so infrequently.

Data from the Office for National Statistics sheds some light on how the internet is being used by different age groups.³ The latest data from 2017 shows that 79% of people aged 16 to 24 use the internet on a daily basis, this is compared to 51% of those aged 65 and over. Daily internet use for those aged over 65 was just 9% in 2006. The data also outlines how young people are most likely to access the internet 'on the go' on devices such as smartphones. According to the ONS, 98% of 16 to 24 year olds use the internet on the go.

Internet activity by age (%)	16-24	25-34	35-44	45-54	55-64	65+
Email	93	91	93	88	81	56
Social networking	96	88	83	68	51	27
Reading the news	74	78	75	74	57	37
Banking	74	82	82	68	58	30
Shopping	88	89	91	84	75	45

In July 2016, a number of youth engagement organisations co-signed an open letter calling for the introduction of online voting in elections. Alongside WebRoots Democracy, these included the National Union of Students, UpRising, Bite the Ballot, and MyLifeMySay.⁴ A number of public opinion polls undertaken on this subject find the majority of younger respondents in favour of online voting. This will be outlined in further detail in the section on public opinion.

Voters with disabilities

Earlier this year, WebRoots Democracy undertook research on access to elections for voters with disabilities and vision impairments for the report, Inclusive Voting.⁵ This included a policy roundtable held at London City Hall with various disability charities, election providers, and the Electoral Commission. Through this research we found that there is a clear feeling that voters with disabilities and vision impairments are being prevented from their right to vote secretly and independently in the existing system. There is a strong appetite amongst disability organisations and campaigners for an accessible, remote, online voting option to be introduced for future elections.

Voters with vision impairments could significantly benefit from the introduction of an online voting option, due to the potential it has for enabling these voters to cast an independent and secret ballot for the first ever time. With the use of an online voting platform that works with

screenreaders, a voter would be able to use their own equipment, in the comfort of their home, to cast a vote in an election in secret and without having to rely on others to do so on their behalf.

In addition, the rise of digital alternatives to paper-based methods, has improved accessibility for people with vision impairments in other areas of their lives. It is no longer the case that people with vision impairments rely on languages such as braille. In fact, figures reported by the RNIB to the BBC in 2012, showed that fewer than 1% of the two million vision impaired people in the UK use braille.⁶

For these reasons, in 2013, the Royal Society for Blind Children's Youth Forum launched a campaign entitled 'Votes Without Limits' in which they called for accessible online voting to be introduced in time for the 2020 General Election.⁷ They argued that this would "make voting easier for blind and partially-sighted people."

The potential breach of law in which the existing system blocks vision impaired voters from casting secret ballots was described as a 'civil rights issue' in the USA, when in 2013, a US Federal Judge ordered Maryland to allow blind and disabled voters to fill out absentee ballots online.⁸

As part of our roundtable discussions earlier this year, we heard about the experience in New South Wales where online voting was introduced after the issue of inaccessibility was taken to court. Scytl, who develop the online voting technology there, stated that the system had universal design, supports nine types of screen reader, and doesn't require any add-ons. In Australia, online voting was introduced for vision impaired voters initially, but later expanded to expatriate voters.

In research undertaken by the BBC in 2015, they interviewed Liz Ball, who is deafblind and communicates through tactile fingerspelling. 9 She called the existing system 'antiquated' and said:

"It still doesn't take account of technology or the shift in societal attitudes to disability. It's about time that as a country we got our act together to make sure that everybody can vote without being disappointed or frustrated by that process."

She said that online voting 'would not just make it easier for people with blindness, but those with other disabilities would benefit, too.'

Scope called for the introduction of an online voting option in 2010 after 35% of participants they interviewed for their Polls Apart study said they would prefer to vote online. ¹⁰ In the report, Scope said:

"For some groups of voters, both polling station and postal voting continued to be fundamentally inaccessible. Visually impaired voters and those with complex physical impairments still had to rely on others to physically mark their ballot paper on their behalf, denying them their right to a secret ballot.

New technologies are now being used by disabled people to improve accessibility in every part of their lives, and the potential of it to revolutionise voting remains considerable."

The option to vote online has the potential to bring down physical access barriers for voters who are wheelchair users, have learning disabilities, or motor limitations. It could also enable many to cast secret, independent ballots for the first ever time.

A study conducted for the Inclusive Voting report by the RSBC with 16 vision impaired participants, found that a third did not feel very confident about being able to vote independently and secretly and more than two-thirds want to be able to vote online. One participant described the lack of accessible documentation as "appalling" and another wanted information to be online so that they could access it with their screenreader. Another described their voting experience as "very difficult" and that "the only way I vote is because I ask a family member who I trust to do the postal vote for me."

In August, the Royal National Institute for Blind People (RNIB) published their post-election report, Turned Out 2017, and called for the voting system to change to enable vision impaired voters to be in 'sole control of their right to a secret ballot'. The charity surveyed over 400 blind and partially-sighted voters covering the recent General Election. Only 1 in 4 said the current

system allows them to vote independently and in secret. 54% said they consider new accessible methods such as online voting as 'necessary.'

Since the publication of the Inclusive Voting report in June, the Government has launched a consultation on access to elections for voters with disabilities.¹²

Armed forces abroad

In our most recent report, Military Voting, the need for improvement in the engagement of overseas military personnel with the democratic process was set out.¹³

Throughout our research, it was clear that casting a vote in an election for members of the armed forces abroad can be a lengthy and difficult process. For those who do choose to cast a postal vote, military aircraft is used to expedite the delivery and return of voter registration applications and ballot papers for elections, which should be unnecessary in this digital era. The fact that the Government and the Electoral Commission actively advises overseas military personnel to vote via proxy instead of post "as there may not be enough time for your postal vote to reach you and be sent back before voting closes" is emblematic of this problem.

Overseas military personnel are essentially being encouraged to give up their right to a secret ballot due to analogue nature of administering elections. This problem should not need to persist indefinitely whilst there are technologies such as online voting which could relieve this issue.

Cost of voting

WebRoots Democracy is currently conducting research on the cost of administering elections and estimating how much the introduction of an online voting option would cost. Our initial findings so far indicate that whilst in the short-term an additional voting channel will add to the overall cost of administering election, in the long-term significant savings could be made as a result of a decline in the use of postal votes.

There are numerous costs and procedures used to administer elections in the UK, from printing ballot papers to the cost of pencils used in polling stations. There is no sufficient breakdown of costs

in the public domain, however, our report aims to provide estimates for a breakdown of election spend by 20 separate costs.

In the borough of Westminster alone, the cost of administering the last general election totalled at least £204,000. This included spending £69,847.20 on staffing polling stations and £18,441.73 on distributing postal votes in the UK. Similar costs were found in the running of North Tyneside's election, with the latest figures totalling to at least £178,000. These costs included spending £18,284.16 on processing received postal votes and £27,718.56 on hiring polling stations. What is very clear from the responses WebRoots Democracy has received from Freedom of Information requests is how many hidden costs there are involved with running and upholding the current system of voting in the UK. Many of the highest costs in each borough were associated with distributing and receiving postal votes and manning polling stations – both processes that could, in the long term, be eliminated with the introduction of online voting.

There are however several new cost considerations that would come into play with the introduction of online voting. These include:

- Architecture and design of the system
- Cost of white hat hackers to test the system for weaknesses
- Network flood defences
- Technical support
- Technical training for staff
- Scrutineer system including auditing/monitoring staff
- An emergency response team that could deal with potential attacks as is done in Estonia

The cost of these items would depend upon the respective service provider chosen. Regardless of the chosen company, it can be assumed that the initial cost of online voting will be high. Nonetheless, overtime the cost would decrease because not all of the items would need to be administered at every election cycle like in the current system, e.g. the printing of ballot papers and poll cards. In addition, from the list above, it can be seen that not all costs will be unique to online voting, such as training staff and running call centres.

We aim to publish our research in this area later this year.

International examples of online voting

Electronic voting has been trialled and is in use in a number of countries across the world. The term 'electronic voting' however includes the use of kiosks or electronic machines within the polling station, as well as remote voting. The term 'online voting' refers to the method of remote voting on smartphones, laptops, PCs etc.

Pages 46-47 of our Viral Voting report, published in 2014, includes a table showing information about a number of countries that have used online voting in elections. In particular, it shows methods of verifying the voter and authenticating the vote. ¹⁴ Below, we have provided some background on two examples of online voting which take place in Australia and Estonia.

New South Wales, Australia

In March 2015 the state of New South Wales (NSW), in Australia, held the largest binding government Internet delivered election in the world with over 280,000 votes using their iVote system. ¹⁵ An election channel that was extremely well received by voters (recording a 97 % satisfaction rate), experienced an increase in the online voting channel of 500%.

Australia has seen a number of trials and implementations of electronic voting projects, from those based on attendance based solutions to the trial on a specialised network for the collection of votes from Australian soldiers in the field. The 2015 iVote project was an extension to the prior election in 2011, the first Internet delivered election in Australia. So far NSW is the only Australian state that has delivered ballots to remote and disabled voters over the Internet.

In Australia the electoral system has been compulsory since 1928, enforced through the fining of eligible voters who fail to vote.

A court found in 2008 that the NSW Government should provide a vote in a 'secure and private manner' to a blind voter in a case brought by Darren Fittler. As a consequence of that finding it was determined by the Electoral Commission that the best way to meet the electoral need of the

visually impaired voter was to make available an online voting system. Behind this decision was the observation that only 10% of visually impaired people in NSW can actually read braille, thus eliminating some of the options that might otherwise have been available.

This combination of compulsory voting requirements, the penetration of Braille, budget constraints and 'political will' created an environment that successfully incubated and fostered the desire to implement an online voting solution.

According to the NSW report into the conduct of the 2015 state general election, the use of the iVote system has increased participation, with one in ten users reporting that without the system they would not have cast a vote. This is clear evidence that the system does in fact enfranchise voters in the NSW context.

Estonia

The 2007 Estonian Parliamentary elections saw a 'world premiere' of the first time an electorate could vote over the internet in elections of a national parliament. The number of online votes cast in 2007 was 30,243 out of a total of 550,213. This amounted to 5.4% of the total number of votes being cast via the internet. The percentage of online votes cast by voters aged 24 and under was 11% with the smallest percentage coming from the 55 to 59 age category with 6%. The turnout in the election was 62% of the population.

In 2011, the number of online votes cast was almost five times larger than in 2007 with a total of 140,764 out of 580,264 votes cast via the internet. This amounted to 24.3% of the total number of votes. The percentage of online votes cast by voters aged 24 and under was 9%. The turnout in comparison to the 2007 elections had increased by 1.5% with a turnout of 63.5%. In 2007, it was estimated that 63% of the Estonian population use the internet, with 53% of households having a computer, and with every having an internet connection. Preconditions to online voting included a 'high ereadiness of the Estonian population.' Voting was conducted using electronic ID cards and a legislative basis was created by the Estonian Parliament in 2002.

Year	2003 Estonian	2007 Estonian	2011 Estonian	2015 Estonian
	Parliamentary	Parliamentary	Parliamentary	Parliamentary
	Election	Election	Election	Election
Turnout (%)	58	61.9	63.5	64.2

Since introducing an online voting option in 2007, the turnout in Estonian Parliamentary elections has increased by 6.2 percentage points. Hollst we would recommend applying caution when comparing experiences of different countries, if applied to the 2017 UK General Election, this would equate to 2.9 million additional votes. Across Wales, this would equate to an additional 142,000 voters, similar to the population of the city of Newport.

Online voting certification framework

Should the Welsh Government decide to pilot online voting in elections across Wales following this consultation, WebRoots Democracy alongside computer science academics at Cardiff University and the University of Birmingham would like to suggest that this is undertaken alongside our project to assess and certify online voting platforms.

The project we are planning aims to create a framework for measuring and certifying the accessibility, security, and usability of an online voting system, which we will call the Online Voting Certification Framework (OVCF). The OVCF will set out various criteria to rate different online voting platforms against. This would then result in ratings for the different categories such as AAA, AA+, AA etc.

We plan to build upon our existing research into online voting to draw up a set of criteria and methods of measuring success against them. This would take the form of a written document and include input from academics, developers, election officials, and NGOs. These will include the likes of the Electoral Commission, e-voting providers, computer scientists, and NGOs that are for online voting, as well as NGOs and individuals that are critical of online voting.

The OVCF will involve organising a number of expert roundtables, focus groups, interviews, literature reviews, and desk-based research. Once complete, the OVCF will help the Welsh Government assess the security of various online voting platforms, reassure the public that their

votes will be cast securely, and incentivise evoting developers to improve the quality of their platforms.

Alongside ourselves, this proposed project involves Dr George Theodorakopoulos from Cardiff University's School of Computer Science and Informatics, and Professor Mark Ryan and Dr David Galindo from the University of Birmingham's School of Computer Science. Dr Theodorakopoulos brings expertise in reasoning concretely and quantitatively about privacy attacks and defences in mobile networks; Professor Ryan obtained press coverage with the DuVote voting system, and Dr Galindo was part of the team behind the award-winning iVote voting system.

Public opinion on online voting

A number of public opinion polls have been undertaken over the past few years on the potential introduction of an online voting option in elections. We have outlined details of 10 such polls below. They are generally supportive of the reform and find that a significant proportion of the population want online voting introduced, think it will increase turnout, believe they would be more likely to vote if they could do so online, and that it would be their preferred method of voting.

Survation conducted a survey of 2,096 adults from 3-9 September 2013 on behalf of Lodestone Communications.¹⁷ Respondents were asked whether or not they would be more likely to vote if they were able to do so online. 63% said they would be more likely to vote.

In 2014, Populus carried out a survey of 1,004 18 to 25 year olds on behalf of Demos. 18 Respondents were asked whether or not the would be more likely to vote if they were able to do so online. 66% said they would be more likely to vote.

Survation conducted a survey of 1,003 16 to 24 year olds in August 2014 on behalf of Sky News. ¹⁹ Respondents were asked whether they would be more likely to vote in the 2015 General Election if they were able to vote over the internet. 80% said they would be more likely.

In April 2015, Opinium conducted a survey of over 2,000 adults across the UK.²⁰ Respondents were asked which method they would use if an online option was available. 45% said they would vote online, 30% at a polling station, 13% by post, and 2% by proxy.

In July 2015, YouGov carried out a survey of 1,543 adults across Great Britain on behalf of WebRoots Democracy.²¹ Respondents were asked whether they believe an online voting option should be implemented for the 2016 EU referendum. 56% of respondents said it should be implemented.

In July 2015, YouGov carried out a survey of 1,047 adults in London on behalf of WebRoots Democracy. ²² Respondents were asked whether they believe an online voting option should be implemented for the 2016 London Mayor Election. 59% of respondents said it should be implemented.

In April 2015, YouGov carried out a survey of 1,566 adults across the UK on behalf of Tecmark.²³ Respondents were asked whether they believe the introduction of online voting would increase turnout in elections. 63% of respondents said they believe it would boost turnout.

In May 2017, BMG Research carried out a survey of 1,630 adults across the UK.²⁴ Respondents were asked whether they support the introduction of an online voting option in UK elections and referenda. 45% of respondents said they support its introduction, including 49% of those aged 18 to 34.

In August 2017, the Royal National Institute for Blind People carried out a survey of over 400 blind and partially-sighted voters. ²⁵ Only 1 in 4 said the current system allows them to vote independently and in secret. 54% of respondents said they consider the introduction of an online voting option as 'necessary'.

In February 2017, the UK's Association of Electoral Administrators polled the delegates at their annual conference in Brighton.²⁶ Delegates were asked whether or not voters should be able to vote online in elections. 57% of respondents said it should be introduced as an option.

references

references

¹ <u>UK election statistics: 1918-2017</u>, House of Commons Library, 23 August 2017.

- ¹⁵ The NSW iVote project Internet based voting in Australia, WebRoots Democracy, 6 December 2015.
- ¹⁶ <u>Statistics about Internet Voting in Estonia</u>, Valimised, Accessed 9 October 2017.
- ¹⁷ <u>Lodestone Political Survey</u>, Survation, 12 September 2013.
- ¹⁸ Tune In, Turn Out, Demos, 2014.
- ¹⁹ Sky Youth Poll, Survation, 27 August 2014.
- ²⁰ Study finds that online voting would be the most popular method in the UK, WebRoots Democracy, 18 April 2015.
- WebRoots Democracy/YouGov poll shows majority want online voting implemented in the EU referendum, WebRoots Democracy, 21 July 2015.
- WebRoots Democracy/YouGov poll shows majority want online voting implemented in the 2016 London Mayoral Election, 18 July 2015.
- ²³ <u>Brits back smartphone voting in general elections</u>, Tecmark, 8 April 2015.
- ²⁴ Half of all 18 to 24 year olds support online voting, BMG Research, 14 May 2017.
- ²⁵ 54% of vision-impaired voters want online voting, according to RNIB, WebRoots Democracy, 17 August 2017.
- ²⁶ <u>UK Election Administrators vote 57% in</u> <u>support of online voting option</u>, WebRoots Democracy, 6 February 2017.

² How Britain voted in the 2017 election, Ipsos Mori, 20 June 2017.

³ <u>Internet access and use in Great Britain: 2017</u>, Office for National Statistics, 3 August 2017.

⁴ Open letter: Youth organisations unite behind call for online voting, WebRoots Democracy, 1 July 2016.

⁵ <u>Inclusive Voting: Improving access to elections</u> <u>with digital democracy</u>, WebRoots Democracy, 5 June 2017.

⁶ <u>Braille is spreading, but who's using it?</u> BBC News, 13 February 2012.

⁷ Over a million blind voters left without a voice in General Election, Royal Society for Blind Children, 14 May 2015.

⁸ <u>Court case: Voting via the internet is a civil</u> <u>rights issue for disabled</u>, Al Jazeera, 30 July 2014.

⁹ Why do disabled people feel ignored when it comes to voting? BBC News, 28 March 2015.

¹⁰ Polls Apart, Scope, July 2010.

¹¹ <u>Turned Out 2017</u>, Royal National Institute for Blind People, August 2017.

¹² <u>Access to elections: Call for evidence</u>, Cabinet Office, 5 September 2017.

¹³ Military Voting: Enhancing access to elections for the armed forces abroad, WebRoots Democracy, 1 August 2017.

 ¹⁴ Viral Voting: Future-proofing UK elections with an #onlinevoting option, WebRoots Democracy,
 3 March 2015.