

TRANSCRIPT

ELECTORAL MATTERS COMMITTEE

Inquiry into electronic voting

Melbourne — 22 August 2016

Members

Ms Louise Asher — Chair

Ms Ros Spence — Deputy Chair

Ms Lizzie Blandthorn

Mr Martin Dixon

Mr Russell Northe

Ms Fiona Patten

Mr Adem Somyurek

Staff

Executive officer: Mr Mark Roberts

Research officer: Mr Nathaniel Reader

Witness

Mr Christopher Glerum.

Necessary corrections to be notified to executive officer of committee

The CHAIR — Thank you very much for making the submission to the committee and for appearing before us today and for your willingness to expand on your submission and to answer questions. Can I please check, have you received a copy of the guide to giving evidence at a public hearing —

Mr GLERUM — Yes, I have.

The CHAIR — which covers the issue of privilege. As long as you are aware about the difference between what you say in here and what you say out there, committee members will be relaxed. Were you here for the previous introduction?

Mr GLERUM — I was.

The CHAIR — So you are aware who the members of the committee are. Terrific. That will save me going through that. Could you please state your full name and your business address and again make it clear whether you are appearing in a private capacity or representing an organisation, when you commence expanding on your submission. As you are aware, Hansard is here to record your evidence as given to the committee. Again, if you could state your name and the capacity in which you are appearing today and perhaps make a few introductory comments about your submission if you would, please.

Mr GLERUM — My name is Christopher Glerum. I am here in a private capacity. Thank you for inviting me here today. My written submission was born of the need to counter some of the basic public opinion expressed online and in other forums. A lot of people felt the need, that electronic voting would be beneficial because of convenience, without giving too much concern to the risks associated with it. Such views gave such little thought to the downsides, particularly to the security of the vote and the heightened need for trust in its implementation. While I understand that the nature of progress is that electronic voting will eventually become a reality — it might be in 5 years time, it might be in 50, but eventually it will happen — I think that when that change is made we have to make sure that key demands of voting are met and that we are not making any trade-offs in terms of paper-based voting. In my submission I made reference to the demands being that the public must be confident that the result is true and correct and also that the voter must remain completely anonymous. To the extent of the research that I have done, there are not any available forms of technology which reach this high standard.

I made my submission on the fundamental basis that the right to vote is paramount to maintain democracy. Nothing should infringe on a person's right to vote and nothing should impact the outcome of an election, other than the collective voice of the electors. As the process currently stands, no one person can significantly affect the outcome of an election. Papers are counted multiple times by different people, the process is tangible, it can be observed and it can be scrutinised by almost anyone. When this role is taken over by a computer, the internal workings of the system cannot be observed. One small defect in the code can alter results which cannot then be backtracked, or it is very difficult to do so. I have not seen the full technical resources of these systems but it would be very difficult for the integrity of that vote to be maintained.

A full-scale test to mitigate every flaw in a system cannot be achieved until election day, when everyone is there — and that is probably the worst time for something to go wrong. With this, we see that the first demand of public confidence in the result being correct cannot be achieved. Some solutions, as you have heard before, have hinted at the ability for an elector to check their vote. However, it is very difficult to make sure that this is anonymous, as in some way an elector is linked to their vote. No matter how secure this is purported to be, it is a possibility that someone's political views are then known to third parties, which defeats the purpose of the secret ballot — and this is getting back to the point of being a trade-off. We would like our technology to be a complete replacement, not 'We'd prefer convenience to complete anonymity'. If the elector is linked to their vote, this fatal compromise is made. We are sacrificing the secret ballot for convenience. The alternative, however, is that once an elector has cast their vote, then they are unable to verify it. Again, this gets back to the other problem of how can they trust that what they have entered onto the screen is put into the final numbers, because we cannot verify what the computer is doing.

We must expect that, in implementing any form of electoral system, a mistake will be made at some point. A paper-based system has these redundancies and is designed to accept them. It is tangible, there are checks and balances and we can ensure the correct outcome. It can be heavily scrutinised and the risk of a mistake being made to the extent that it jeopardises the entire outcome is quite minor. Conversely, the nature of a small mistake in an electronic system could be catastrophic. An incorrect number in one spot of the source code, a system crash at the wrong time or any number of other errors could seriously jeopardise an accurate result.

Thank you for listening to me and thank you for your time today. I invite you to ask any questions that I might be able to help with, with my limited knowledge of IT. You have got a panel of experts in the room, who are probably more suitable for technical questions.

The CHAIR — Thank you very much for your willingness to come along.

Ms SPENCE — Christopher, do you envisage an electronic system that could address the concerns that you have raised?

Mr GLERUM — I think that it is very difficult to predict that. If you look back 30 years ago, someone being able to predict the internet would have been very, very difficult, so what will happen in years to come — there may be some advancement that no-one has thought of at this stage which could enable this system to function properly.

Mr DIXON — The idea of coercion, that sounds a bit conspiracy theorist. When we come up with a certain outcome of this investigation — when I talk to people, there are major issues about coercion — what might coercion look like, in a practical sense?

Mr GLERUM — It is not to say that it goes on per se, but it is to say that we have to work under the assumption that it will. From a practical standpoint, it would be someone getting to an electoral staff member — that might be one person who can affect the outcome of the system or it might be the team that develops the software, or it might be the person that develops the software, if you can get to that one person, you can affect some part of the process. With a paper-based system, there are a lot of people you would have to get to in order to affect the outcome of a result.

Ms BLANDTHORN — I think it is interesting that when you look at iVote in New South Wales, for example, there seems to be a popular demand for it, notwithstanding the concerns that experts might have about it, and then if we look at what happened even before the census failure, people were obviously concerned about the sharing of their personal information, that type of information, over an internet-based system. What do you think it would take to build the trust, because on one level it appears that a lot of people want it and then on another level, when they are asked to do it in a forum such as the census, they question it? How do you think we get people to have trust or confidence in that type of a system?

Mr GLERUM — I think that the biggest difficulty comes from explaining very, very complex details, such as how the system works, in layman's terms. I do not think the electronic voting system will have the exact same issues in terms of privacy with regard to the census, because it is not personal information, so to speak. There is, obviously, the issue of making sure that everyone's vote is anonymous with this particular system. In terms of allaying people's concerns, it would just need to be made abundantly clear in layman's terms that their information is not under any form of jeopardy and that their vote will count, and I think that is a very, very difficult thing to achieve with current technology.

The CHAIR — Could I ask on the issue of young people: a lot of people have put to this committee that young people just expect to do everything on the net, including voting, and the fact that they have to go and pick up a pencil or whatever is alienating to them and not of their culture and so on and so forth. Could you perhaps make a comment on that — on what you would say to a young person if this committee said, 'Well, let's go with all of this advice that we shouldn't do it'. Young people are likely to say, 'Well, I do my banking on the internet. Everything is done on the internet'. How would you explain this to a young person — that there are just so many obstacles to adopting an electronic voting system?

Mr GLERUM — I would say that everything that they are accustomed to using, everything they use — electronic banking — has all gone through rigorous scrutiny, much like this committee is doing here, and it has passed those checks. There has been some solution found to allay concerns.

When it comes to electronic voting, the challenges of making sure that we achieve everything that we can currently achieve with paper-based voting just is not there yet. I think that while everyone considers the convenience aspect of it, and it would be brilliant to have an election result 5 minutes after the final poll closes, I do not think it is realistically achievable and I think it would be unwise to sacrifice rights and freedoms for the sake of convenience.

Ms PATTEN — Following on from the Chair's questions is the notion of anonymity. I know when we were talking about the census people said, 'You can just fill it in using your Facebook login', which was funny, but a number of young people that I spoke to said, 'That sounds fantastic. If I could just do it that way'. I just wonder if the sense of anonymity and that sense of the importance of the secret ballot is not as high a priority for younger people these days, because we are sharing so much more information than we were.

Mr GLERUM — I think you will find to a certain extent that a lot of people will openly discuss their political views online and they will have them on a public forum. But I think everyone does deserve the right, if they choose to not want to spread that information, particularly if they are looking for employment, they do not want to have one point where there might be some kind of rejection, or even in a social norm where some people might not want to associate with them based on their views. If people want that option to not put their information out in the public domain, they should have the right to have that.

The CHAIR — Thank you so much for your willingness to come before the committee and participate in this fascinating process for all of us. Again, you will receive your transcript from Hansard in about two weeks time and you can correct errors but obviously not the basic content of your submission to the committee. Again, thank you very much for your willingness to participate.

Mr GLERUM — Thank you for your time.

Witness withdrew.