

# May 2007 Election Report

## **Findings of the Open Rights Group Election Observation Mission in Scotland and England.**

Prepared June 2007

# Executive Summary

## **The Open Rights Group cannot express confidence in the results for areas observed.**

**The Open Rights Group (ORG) believes that the problems observed at the English and Scottish elections in May 2007 raise serious concerns regarding the suitability of e-voting and e-counting technologies for statutory elections. E-voting is a 'black box system', where the mechanisms for recording and tabulating the vote are hidden from the voter. This makes public scrutiny impossible, and leaves statutory elections open to error and fraud. The Government has prioritised the introduction of e-voting because of the perceived convenience of new technologies, ignoring other vital considerations such as confidence and trust in the electoral system. ORG considers that the problems observed and difficulties scrutinising results delivered by e-counting systems bring their suitability for statutory elections into question.**

### **Observing**

As a technology-focused organisation, the Open Rights Group is actively interested in e-voting and e-counting developments. ORG welcomed the opportunity to observe the electoral modernisation pilots taking place this year in England as well as the e-counting planned for Scotland.

Given that this was the first time accredited observers were permitted in the UK, it was unsurprising that there were some difficulties with the observation process. English legislation, regulations and orders did not mandate that observers should be allowed to monitor pilot-specific arrangements and case-by-case negotiation for access proved necessary. In both Scotland and England election administrators, unused to the presence of observers, sometimes did not understand what observers wished to see and varied widely in their approach to information provision and local 'house rules' for observation. In England observers were frequently subject to seemingly arbitrary and changeable decisions via unclear lines of authority, and on occasion observers were granted less access than the media. The Electoral Commission intervened on several occasions to guide election administrators.

### **Procurement**

The 2007 English pilot programme was announced by the Department for Constitutional Affairs on 17 October 2006, but official notice of approved schemes was not given until 29 January 2007, some three months before the pilots were due to run. This provided authorities with insufficient time for considered procurement processes to be conducted. The resulting schedule was completely inadequate for development and implementation of robust live systems, especially considering that they involved immature technologies. Based on the limited information available, the timetable in Scotland for implementing e-counting appears to have been more reasonable.

### **Testing and Management**

E-voting and e-counting technologies have a poor track record in the countries that have used them. The e-voting and e-counting technologies deployed on this occasion did not perform to the standards expected by Returning Officers (ROs), candidates and their agents.

Inadequate attention was given to system design, systems access and audit trails. Systems used both inappropriate hardware and software, and were insufficiently secured. Problems included: use of desktop productivity software, machines in public areas with open ports, informal transfer of files using personal devices, and single-factor authentication. ORG

observed an unwillingness to incorporate what it considers to be reasonable checks for this immature technology, such as manual sampling of e-counted ballots. Audit trails provided to date are inadequate and risk providing election administrators with a false sense of security.

ORG was impressed with the dedication of elections staff in working highly unsocial hours and under considerable pressure to deliver these elections. However ORG observed a lack of management at Returning Officer and Government level, with a worrying transfer of power—without a corresponding transfer of responsibility—to vendors.

### **Role of Vendors**

On election day, vendors provided many assurances regarding progress to ROs that were all too frequently not met. Vendor technical staff at South Bucks were instructed not to communicate with observers, leading to absurd chains of Chinese whispers via non-technical staff. In Swindon, an ORG observer received conflicting reports from a Presiding Officer and a contractor about the status of what appeared to be malfunctioning voting equipment.

Software supplied by vendors incorporated elements that were dated and subject to known security vulnerabilities. This could have been prevented by a rigorous certification scheme for equipment and software, and the lack of such certification is of significant concern.

### **Problems Observed with E-voting**

On election day, there were numerous problems with electronic voting. In Swindon, laptops at polling stations used for e-voting and live electronic registers proved unreliable, with the majority of polling stations observed experiencing problems. At Rushmoor, the ballot displayed incorrectly at the opening of advanced voting and electors reportedly experienced problems with error messages. Online voters in Sheffield also had trouble casting their votes. Where they existed, cryptographic receipts were generally poorly designed and difficult for voters to use.

Though some newer remote-voting channels such as telephone voting may appear superficially attractive to groups of voters such as the elderly and housebound, in practice these were the very voters who appeared to experience most difficulties. ORG received a number of reports concerning difficulties in understanding and using the telephone voting system in South Bucks, and in understanding the registration process in South Bucks and Rushmoor. There was no evidence that usability testing had been conducted to ensure processes were as easy to use as possible. In the case of South Bucks, it was unfortunate that voters registered for remote voting, but who then experienced difficulties, were prevented from voting in person at polling stations. These voters were effectively disenfranchised.

### **Problems Observed with E-counting**

Chaotic scenes were observed at the English e-counting pilots, with very significant delays in the declaration of results. Scanner malfunctions and software errors slowed counts and the adjudication process. Scanner sensitivity to poor quality printing, incorrectly cut paper sizes, fold marks and tears from low quality perforations all contributed to high rates of ballots sent for adjudication. The result of these problems was that pilots in Breckland and Stratford abandoned e-counting in favour of a manual count. In Breckland, manual recounts—insisted upon by an election agent—revealed major discrepancies between the numbers counted manually and electronically. Breckland's Dereham-Humbletoft ward, the one ward in England that was counted both electronically and manually, was found to have 56.1% more District Council votes than when e-counted.

Candidates and agents reported receiving far less information than they expected. Many felt the process of e-counting to be opaque, with counts physically removed to distant locations, little visibility of processes and a generalised lack of information forthcoming from ROs concerning processes or progress. ROs themselves were heard to comment that they did not know what was happening. ROs and suppliers were often secretive about how results were derived, and in general the observability and scrutiny of e-counts was poor.

### **Experience of Voters, Candidates and Agents**

While many candidates, party workers and election workers reported initial positive attitudes towards election technologies to ORG—tempered with some doubts concerning the provision of timely information and the impact on the electoral process—by the latter part of the count process, many had expressed disillusionment. An early or extended voting period alters the

timetable of the electoral process. Insufficient consideration has been given to the impact on campaigning, canvassing, scrutiny and the information needs of candidates and parties.

At many stages throughout the entire electoral process, information was not provided in an open and timely manner. ORG itself experienced obstruction from some authorities and Government departments when seeking information concerning the elections; candidates and their agents were frequently left in the dark concerning count progress; suppliers were on occasion economical with the truth. Both authorities and suppliers should have anticipated problems with the immature technologies used and should have been better prepared to deal with them.

Despite the considerable resources and publicity given to the elections, including official leafleting and extensive local press coverage, there has not been a demonstrable and consistent trend towards increased turnout. The problems that arose in Scotland, in particular, are likely to have a long-term detrimental effect on voter trust and confidence. Pilots held to date suggest that e-voting will not deliver the additional voter engagement expected by the Government.

### **The Scottish Parliamentary Ballot**

Sixteen Scottish Parliamentary constituencies declared results where the number of spoilt ballots was greater than the winning margin. ORG considers that combining on the same day two elections, using different systems, was a contributory factor to the number of papers rejected. However, based on figures collected, ballots observed during adjudication as well as interviews with candidates, agents and electors, ORG's view is that the design of the Parliamentary ballot paper was the primary cause of spoilt ballots. Specifically the placement of the regional vote on the left-hand side of the paper ran contrary to voter expectations. This issue was compounded by information posters and instructions from poll workers which often failed to specify that one cross, only, should have been made in each column. Given that many smaller parties stood candidates nearly exclusively in the regional contests, the pattern of voting from previous Scottish Parliamentary elections and the types of spoilt ballots observed; it is ORG's view that smaller parties were unfairly penalised by the ballot design and associated errors.

The Electoral Commission made an inappropriate use of focus group studies when assessing potential ballot paper designs. The study conducted failed to test any designs with the constituency column on the left-hand side, an oversight the Commission should have corrected before allowing the study to proceed. That the results of the flawed study were presented as key evidence in support of the final Scottish Parliamentary ballot paper printed brings into question the judgement of both the Commission and the Government departments responsible. Both the Commission and the Government ignored advice from the Usability Professionals' Association in failing to conduct proper testing of the ballot design, as well as of other systems and processes observed in Scotland and England.

### **Conclusion**

The inability of ROs and the Government to understand events as they unfolded, let alone to manage those events, is of considerable concern. ROs were supplied with information by vendors as the counts proceeded, but were poorly equipped to interpret and act on its technical aspects. The lack of general technical understanding and knowledge about the e-counting and e-voting systems across all election staff was perturbing. Too often, ROs displayed a lax attitude towards problems that arose, sometimes appearing more interested in declaring any result, correct or otherwise, than in getting to the root of those problems.

ORG is concerned that the lack of reliable audit trails, the actions of some vendors that left no audit trail and a general reluctance to perform manual counts to confirm the results of e-counting mean that there is no meaningful way to verify that voters' intentions had been accurately counted.

**ORG concludes that, given the problems observed and the questions remaining unanswered, it cannot express confidence in the results declared in areas observed. Given these findings, ORG remains opposed to the introduction of e-voting and e-counting in the United Kingdom.**

# About the Open Rights Group

The Open Rights Group is a fast-growing NGO focused on raising awareness of issues such as privacy, identity, data protection, access to knowledge and copyright reform. Founded in 2005 by a pledge from 1000 members, ORG is funded by small grants and donations from supporters. We aim to improve both understanding and policy in digital rights matters that affect both businesses and the public. Our activities include organising campaigns, lobbying government, and helping journalists find experts and alternative voices for stories.

The Open Rights Group's goals are to raise awareness of digital rights abuses; to provide a media clearinghouse, connecting journalists with experts and activists; to preserve and extend traditional civil liberties in the digital world; to collaborate with other digital rights and related organisations; and to nurture a community of campaigning volunteers, from grassroots activists to technical and legal experts.

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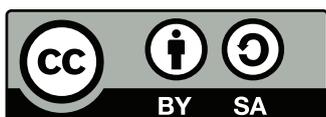
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