

# The Mechanization of Voter Intent

Debra Chapman, PhD.  
Wilfrid Laurier University

This paper was prepared for the 2012 Canadian Political Science Association meetings in Edmonton and should not be cited without the author's permission.

Electronic voting systems (EVS) are increasingly used in Canada. Because election results are the essential measure of the popular will in liberal democracies, accurate determination of voter intent and spoiled ballots by EVS is a necessary prerequisite. There is reason to be concerned about the faith placed in mechanization. “What [N] does is not simply to make a mark on a piece of paper; he [sic] is *casting a vote*” (Winch 2008: 46). Voting is observably intentional action in the context of certain political institutions, those say, of parliamentary democracy. If every vote counts, then every vote must be counted – which means seeing the mark on the paper as intentional action. “The notion that voters can expect to have their preferences recorded accurately and fairly is fundamentally important in a democracy” (Dee 2007: 681).

This paper is an evaluative empirical case study of the tallying of ballots in Ward 9 in the City of Kitchener, Ontario of the 2010 municipal elections. It will examine aspects of the Ontario Municipal Elections Act (MEA), official court and City documents, selected studies of election procedures and observations made during the counting/recounting of the ballots. Three things make this particular election noteworthy. First, there was a one vote difference between the leading candidates; second, the ballots were tallied using optical scanning tabulators; third, there were two recounts following the announcement of the Election Day results. This paper examines the recount process in which the determination of voter intent was ‘mechanized’ by the City Clerk. The results of the study provide the basis for recommending changes to out-of-date aspects of the Ontario Municipal Elections Act and suggestions on how to ensure that all votes are counted.

Participant Observation of the recount process was used to compliment the data collection component of the study. Participant observation allows one “to observe and collect rich and detailed information about [a setting], which cannot be collected using the standard interview methods” (Hughes and Sharrock 2007: 221). Academic sources, government documents and court documents were examined and used to give structure to the observations discussed throughout this paper. The court documents come from the Ontario Superior Court of Justice Court File #. C-1016-10, Chapman versus the Corporation of the City of Kitchener. These documents are accessible at the City of Kitchener Ontario Superior Court of Justice. The data collected through observation is the most valuable component of the analysis forwarded here, given that access to the process was limited to the City Clerk, the Candidates for that Ward, one scrutineer for each tabulator/polling station, one lawyer per candidate and one for the City, an Assistant Recount Officer for each machine and the media (whose interest was to record the reaction of the candidates and report the official results) (City of Kitchener Nov. 3, 2010)<sup>1</sup>. Regarding testing of electronic machines, Balzarotti’s et al (2010: 454) state that “while current standards provide a ‘checklist’ of characteristics that must be verified, there are no guidelines or suggestions on how these characteristics can or should be verified”. This study concludes with some guidelines and suggestions on the use of the optical scanner tabulators in election recounts.

Balzarotti et. al. (2010: 453) remind us of a quote that has been attributed to Stalin and which states that “those who cast the votes decide nothing. Those who count the

---

<sup>1</sup> In order to ensure full disclosure, it should be noted that I participated in the electoral recount process as the losing candidate, Candidate B.

votes decide everything”<sup>2</sup>. Of course, this was stated prior to the use of electronic voting machines. With the current voting methods, one could add that “blind confidence in voting machines gives decision making powers to machines and not the elector” because it is the machine that decides everything. The dynamic is similar in that in both cases agency is taken from the elector and placed elsewhere, whether on the machine or the clerk.

There has been much concern about voting procedures and tallying since the 2000 U.S Presidential election in Florida when hanging and dimpled chads created uncertain results. More recently, in a congressional election in Sarasota County, Florida in 2006 the Election Day results found “17,846 ballots (14.9 percent of the total number of votes) cast on electronic voting machines showed no vote for either candidate in the race” (Balzarotti et al 2010: 453). Again in 2008 in Minnesota there were “almost 7,000 ambiguous ballots” challenged in a senatorial race. In so far as electronic voting systems are being widely adopted, then these U.S. examples call into question current election methods around the world.

The idea of a secret paper ballot dates back to 1888 in Australia (Balzarotti et al 2010: 45). In the 1930s mechanical lever machines were introduced. The 1960s welcomed punch card machines. Direct recording electronic machines were first used in the mid-1970s. Since then optical scanners, internet, voice activated, mail-in, telephone and touch screen voting have come to be used. It is not that one has replaced the other. In some cases a variety of the different methods will be used in the same province, municipality or region<sup>3</sup>.

There are numerous studies which examine the reliability and virtue of different voting methods (AMCTO 2011); the influence of voting method on voter turnout (Card and Moretti 2005, Allers and Kooreman 2009); the reliability and security of electronic systems (Balzarotti et al 2010; ); and whether residual votes increase or decrease depending on the method used (Mebane 2008; Lott 2009). One very thorough study of Diebold optical scanning machine (Hursti 2005) goes as far as to examine technical aspects of the scanners and the irregularities found in the memory cards of these machines.

This study being reported here differs from, yet complements, the work on the above mentioned topics. It provides a Canadian case study of voter intent and recount procedures at the municipal level. It does not look at the technical function of the machine, but is concerned with the procedural aspects of the use of the machines. As Balzarotti et al 2010: 455) state, “electronic voting systems [are] far from being the final solution to voting problems. In fact, technology alone does not guarantee the absence of irregularities or problems”. Further examination of the shortcomings related to electronic voting, if brought to the attention of government authorities, may help to improve the procedures.

### **The Procedure: Optical Scanning Tabulators:**

---

<sup>2</sup> There is no primary source for this assertion, though it is believed that he said it in an unpublished speech or private conversation. It is fitting for the argument being developed here.

<sup>3</sup> In a letter from the president of the Association of Municipal Managers, Clerks and Treasurers of Ontario (AMCTO), to the then Minister of Municipal Affairs and Housing, Kathleen Wynne, Daniel Gatién (Feb. 24, 2012) states the need to “improve the likelihood of municipal electors having newer technologies available for voting”.

Throughout the province of Ontario, 444 municipal elections were held on October 25<sup>th</sup> 2010. Municipal election processes fall under the Ontario Municipal Elections Act (MEA), 1996, a provincial act that grants the city clerk the responsibility of conducting local elections (see Section 11.1 of the MEA). In the case of school board trustee elections, the secretary of the school board is in charge. This paper will focus on the city clerk's responsibilities in the election of city councillors in ward 9 in the City of Kitchener, Ontario. Residents in Waterloo Region elected regional councillors, a regional chair, city mayors, city councillors and school board trustees.

As detailed in Section 11.2 in the MEA, the clerk is responsible for:

Preparing for the election

- a) Preparing for and conducting a recount in the election
- b) Maintaining peace and order in connection with the election; and
- c) In a regular election, preparing and submitting the report described in subsection 12.1 (2) [said report details "the identification, removal and prevention of barriers that affect electors and candidates with disabilities"].

The clerk has legislative powers to determine the outcome of the whole process. He/She will determine such things as whether a composite or a separate ballot will be used (41.6); whether voting machines will be used and which ones (41.1a); or whether mail or phone-in ballots will be accepted (41.1b). In fact, according to Section 12.1 "[a] clerk who is responsible for conducting an election may provide for any matter or procedure that, a) is not otherwise provided for in an Act or regulation; and b) in the clerk's opinion, is necessary or desirable for conducting the election". While this section of the Act already gives the clerk discretionary powers that supersede those of the elected official, in a list of recommendations from the AMCTO (Gatien 2012) it is suggested that "the innovative capacity of municipal clerks [be recognized] by placing the authority of deciding on vote casting and counting methods and advance voting days with an official who is without a conflict of interest on this matter – shifting from the incumbent council to the municipal clerk such authority". They suggest an amendment to the MEA that would "clarify...the breadth of the clerk's duties/responsibilities as it relates to election administration". While giving such authority to an incumbent council is problematic, giving greater authority to one person can also be seen as undesirable.

On June 19, 2006 By-law 2006-135 was passed in Kitchener, which stipulated that [t]he use of voting and vote-counting equipment such as voting machines, voting recorders or optical scanning vote tabulators is hereby authorized in respect to the municipal elections to be held in 2006 and in subsequent election years.

It was in keeping with this by-law that voting tabulators were used in the 2010 municipal elections in Kitchener<sup>4</sup>. Voting tabulators/optical scanners were leased, programmed and

---

<sup>4</sup> Not all municipalities in Ontario used tabulators in 2010. According to a post-election survey conducted by the Association of Municipal Managers, Clerk and Treasurers of Ontario the following methods were used on election day 2010: 110 used paper ballots; 15 used touch screen machines; 54 used mail-in ballots; 23 used vote by phone; 28 used vote by internet; 3 used other (AMCTO 2011:11) and 49 used a combination of two or more of the above mentioned methods (AMCTO 2011: 33).

serviced from Dominion Voting<sup>5</sup>, a multi-national corporation originating in Toronto and currently based in Denver, Colorado.

The voting day process will first be discussed, followed by an overview of the two recounts that were realized shortly after the publication of the election results. The voting process is important because the legislation states (section 60.1) that if there is to be a recount, it must be “conducted in the same manner as the original count, whether manually or by vote-counting equipment”. This means that whether or not the candidate requesting the recount, requested a manual recount, the only type of recount that city council can approve is a mechanical recount using the same vote-counting equipment.

The ballot contains sections for all the offices being filled. There is a section for the Regional Chair, Regional Councillors, City Mayor, City Councillors, School Board Trustees and two referendum questions. Ballots are marked with black felt pens provided at the polling stations. The elector is required to place an ‘X’ or fill in the box beside the candidate of their choice and then take the completed ballot to the machine operator who feeds the ballot into the optical scanning tabulator, facedown. While the MEA does not detail the machine jargon, the tabulators are programmed to distinguish between proper votes, over-votes, under-votes and ambiguous ballots<sup>6</sup>.

If the ballot is properly filled-out the machine accepts the ballot and the process concludes. If the ballot specifies that the elector is allowed to vote for 4 school board trustees and the elector votes only for 3, the tabulator registers this as an *under-vote* and counts all the markings on the ballot including the section that is under-voted. In this case the machine accepts the ballot and the voting process is complete.

If, however, the ballot is incorrectly filled-out then the machine beeps and spits the ballot back out. There are two scenarios that can cause a ballot to be questioned or indeed rejected by the machine. First, if the voter selects too many candidates in one of the sections of the ballot, then the tabulator notifies the voter and the operator that there is an ‘over-vote. At this point, the operator is to turn to the voter and notify him/her that they have over-voted on some part of the ballot. The voter is then given the option to recast their ballot. If the voter rejects the offer, the operator presses the override button (button #2) and the ballot is fed into the machine. When the results are tabulated, all sections of the ballot with the exception of the over-voted section, are tabulated. This happens if, for example, the voter selects 5 school trustees instead of the allotted 4, as per the example above. If the elector accepts a new ballot, the old one is placed in Envelope A with ‘cancelled’ written on it.<sup>7</sup>

Second, there are several circumstances in which the machine rejects ballots, returning them to the machine operator. For example, if the deputy returning officer’s (DRO) signature is illegible, the machine will reject it. Torn or damaged ballots are also rejected. Markings that cover the barcode along the side of the ballot can also result in a

---

<sup>5</sup> Diebold, the subject of Hursti’s study on tabulator memory cards, was bought by Dominion in 2010. Hursti made some important observations about the security lacunae in the storage of data.

<sup>6</sup> In the U.S. they use the concept ‘residual votes’ to refer to “those ballots for which ‘no vote can be recorded’”(Dee 2007: 674). These are similar to ambiguous ballots, but can also be overvotes. They “can be due to an error, or to an intentionally invalid or blank vote” (Allers and Kooreman 2008: 163)

<sup>7</sup> While most ballots are fed through the tabulators and counted, there are envelopes at each voting station to hold ballots which are not counted. Envelope A is for cancelled or spoiled ballots, Envelope B is for declined ballots and Envelope C is for ambiguous ballots.

rejected ballot. In order for a marking to be considered a vote, it has to cover “at least 25% of the box” (Clerk’s Affidavit: 2010) beside the candidate’s name. In these cases the machines cannot be overridden by the operator. The ballots come to be considered *ambiguous ballots* and need to be redone or corrected in order to be counted. If the voter refuses to *recast* the ballot, then it automatically becomes a *declined ballot*.

Declined ballots are not replaced or remade. They are placed in Envelope B. According to the DRO’s handbook (City of Kitchener October 25, 2010: 6.2), ballots are ‘declined’ when the “voter deliberately declines ballot at tabulator or original ballot had ambiguous mark and voter declined to mark a new ballot”. It is important to note that in the second part of this clause, it does not refer to the voter declining to vote, but rather declining to ‘mark’ a new ballot.

A final category is that of ‘spoiled ballot’. A ballot is ‘spoiled’ when “the voter has spoiled their ballot through error or made an unintentional mark on the ballot and wishes a new one” (City of Kitchener October 25, 2010: 5.5). Spoiled ballots are never fed into the machine. The DRO writes cancelled on the ballot and issues a new blank ballot to the elector. The cancelled ballot is placed in Envelope A

In summary, ambiguous ballots are ballots that are not recognizable by the machine. These non-recognizable ballots are placed in Envelope C, for ambiguous ballots. Ambiguous ballots can be replaced and the elector remarks the new ballot, which is then fed into the tabulator. If the elector chooses not to remark a ballot, then the ballot becomes a declined ballot and put in Envelope B. Declined ballots are not counted because the machine cannot read them.

When it comes to procedures, Section 52 of the MEA makes no reference to the election procedures or terminology used on October 25<sup>th</sup> 2010. Section 52.3 and 52.4 read as follows:

**Marking ballot, etc.**

52. (3) On receiving the ballot from the deputy returning officer, the elector shall,
- (a) make a cross or other mark on the ballot, within the space designated for the marking of the ballot to the right of the name of each candidate for whom the elector wishes to vote (or, in the case of a by-law or question, to the right of the answer for which he or she wishes to vote);
  - (b) fold the ballot in a manner that conceals its face; and
  - (c) return the folded ballot to the deputy returning officer. 1996, c. 32, Sched., s. 52 (3); 2002, c. 17, Sched. D, s. 19 (2).

**Deposit in ballot box**

52. (4) On receiving the ballot from the elector, the deputy returning officer shall immediately deposit it in the ballot box, in the full view of the elector and any persons described in clauses 47 (1) (b), (c), (d) and (e) who are in the voting place. 1996, c. 32, Sched., s. 52 (4).

On October 25<sup>th</sup>, 2010, the actions of the DRO and the electors in Ward 9, Kitchener, were not in keeping with these sections of the MEA. Instead the process was predetermined by Dominion and adopted by the clerks who chose to use the Dominion tabulators on election day.

Furthermore, Section 54.1 details the counting of the votes in the following way:

**Counting of votes**

**54.(1)** Immediately after the close of voting on voting day, the deputy returning officer shall open the ballot box for his or her voting place and proceed to count,

- (a) in the case of an election for office, the number of votes for each candidate;
- (b) in the case of an election to obtain the assent of the electors to a by-law, the number of votes in favour of the by-law and the number opposed to it; and
- (c) in the case of an election to obtain the opinion of the electors on any question, the number of votes for each possible answer to the question. 1996, c. 32, Sched., s. 54 (1).

This section of the act also neglects to describe the counting process realized by the voting machines. With the voting machines, the operator pushed a button once the polls were closed and a cash register type tape was produced with the totals of all the offices being filled. The ballot boxes were not emptied, nor were the ballots removed and counted. While the City of Kitchener approved the use of voting machines in 2006, no procedural bylaws or amendments to the MEA were made detailing the new procedures. The DRO's Handbook (City of Kitchener October 25, 2010) details the steps to be followed. Hence the language determined by Dominion, such as over-vote, under-vote, ambiguous ballot, to describe the different types of ballots, does not appear in the MEA. 'Decline' appears once in the Act under section 52. (1.5), titled 'Voting Procedure', which states:

- 5. An elector is no longer entitled to vote if, after receiving a ballot, he or she leaves the voting place without returning the ballot, or *declines* to vote and returns the ballot. 1996, c. 32, Sched., s. 52 (1); 2002, c. 17, Sched. D, s. 19 (1); 2009, c. 33, Sched. 21, s. 8 (24).

According to the Ontario Elections Act ballots are declined when:

**53.** An elector who has received a ballot and returns it to the deputy returning officer declining to vote, forfeits the right to vote and the deputy returning officer shall immediately write the word "declined" upon the back of the ballot and preserve it to be returned to the returning officer and shall cause an entry to be made in the poll record that the elector declined to vote. R.S.O. 1990, c. E.6, s. 53.

In both of these Acts, *decline* gives agency directly to the elector who will either walk out carrying the ballot or return the ballot to the election official without voting. The DRO's handbook (City of Kitchener, October 25, 2010) defines declined ballots as ones that the voter deliberately declines or ones that the voter declines to remark. In the second case, when referring to declined ballots with voting machines, voter agency is lost. A declined ballot becomes such when the voter refuses or declines to *remake* the original ballot. This type of declined ballot is decided by the machine, not the elector. The *remaking* or *marking of a new ballot* is one of the concerns here. According to the Kitchener city clerk, the act of not redoing the ballot is the act of declining the ballot. The elector had the opportunity and did not take it therefore they declined the ballot, he argued.

It could be argued that an elector might feel reluctant to remake a ballot which they considered to be their vote. As far as they were concerned they voted and they expected it to be counted. A person from a country where election fraud is the norm could be understandably disinclined to re-vote. Somebody in a hurry on their way to work could also walk away and say, “sorry I don’t have time to redo my vote”. As stipulated in the DRO’s Handbook (City of Kitchener Oct. 25, 2010), when the polls close, all ballots found in the auxiliary ballot box are to be fed into the tabulating machine. These are ballots that are set aside during Election Day because the machines broke down at some time during the day. If any of these ballots are illegible when fed into the machine after the poll has closed, they automatically become declined ballots because the elector is unavailable to remake the ballot.

McMenemy (1995: 8) states that “a ballot may officially be ‘rejected’ by an elector and so recorded, as an act of protest. Otherwise, ballots cast will be tabulated as valid or declared ‘spoiled’ if the elector’s preference is unclear or the ballot is not marked in a way designated as acceptable”. The machine-determined ‘declined’ ballot does not fit the ‘rejected’ ballot category because they are not acts of protest. It is more accurate to consider them ‘spoiled’ because the elector does not clearly mark the ballot. However, if the ballot comes to be labeled ambiguous because the DRO’s signature is missing or illegible, the elector’s actions do not in and of themselves result in a spoiled ballot. To state that a ballot is unclearly marked means different things if the interpreter is a person rather than a machine. This idea will be further elaborated below.

The election results for city councillor in Ward 9 in Kitchener, Ontario, October 25<sup>th</sup>, 2010 produced a one vote difference between the winning candidate and the next candidate. From here on in, the winning candidate will be referred to as Candidate A and the second placed one as Candidate B.

#### **The Recount:**

On October 27<sup>th</sup> two days after the election, Candidate B submitted a request to the city clerk for a manual recount. Recounts can come about in three ways. The first is through a request to city council, the second is a judge ordered recount and the third is a judicial recount. If requested through city council the process is as follows:

#### **Recount for municipality, local board or Minister**

**57. (1)** Within 30 days after the clerk’s declaration of the results,

- (a) the council of a municipality may pass a resolution requiring a recount of the votes cast,
  - (i) for all or specified candidates for an office on the council,
  - (ii) for all or specified answers to a question submitted by the council,
  - (iii) for and against a by-law submitted by the council;

Section (60), as detailed above, stipulates that the recount must be conducted in the same manner as on Election Day. In this case study, this left city council with the only option to approve a mechanical recount. This meant the emptying of all the ballot boxes and one by one feeding them into the tabulators. Scrutineers for both candidates and lawyers were invited to witness the recount.

Unlike the process on election day, during the recount, if ballots were not accepted by the tabulators, they were inspected by the candidates, the clerk and the lawyers and then remade. On election day those ballots would have been considered

ambiguous and the elector would have been given the opportunity to re-vote. At the recount the elector was not in the room or available to remark the ballot, so the clerk granted himself the authority to remake the ballot for the elector. This is an example of the inability of the machines to replicate the electoral process. Some of the ballots that were rejected by the machine had clearly been damaged/torn from the transportation of the ballot boxes. However, there were 3 ballots that appeared to be without damage. The clerk explained that in one case the DRO's signature was not dark enough and that in the second case the markings had crossed into the barcode on the ballot causing it to be illegible. The third ballot looked properly completed. It is unclear why these ballots were accepted on election day, but rejected during the recount. One might also ask if there might have been similar inconsistencies on Election Day where ballots were considered ambiguous when in fact there was no apparent reason why voter intent should have been questioned. On election day if the elector was not there to remake the ballot or if he/she refused to remark it, it would have been considered a declined ballot. Another concern that arose during the recount was that there were three occasions when the tabulators ceased to function and were replaced with alternative machines. When tabulators broke down on Election Day, the ballots were placed in a box<sup>8</sup> or in a pile beside the tabulator<sup>9</sup> and the elector was told they would be fed into the machine by the operator once a replacement machine was provided or the machine was fixed. The elector was no longer at the polling station when the ballots were fed into the machine, as they entrusted their ballot to the operator. Again, any ambiguous ballot from the box or the pile would automatically become declined ballots because the elector was not there to remake the ballot.

In summary, during the recount the ballots were re-fed into the machines and re-tabulated without a glitch. With the remaking of the ballots that came to be identified as ambiguous ballots during the recount, the final result remained the same. In fact, the recount was realized in such a way that it was designed to reproduce the same results. Candidate A beat Candidate B by one vote. If the ballots that were identified as ambiguous during the recount had been treated the same way as ambiguous ballots on voting day, then they would have all been placed in the Declined ballot envelope and not counted. This shows the inability of the machines to replicate the process realized on Election Day. Human intervention was (and always is) required for mechanization to work.

Scrutineers for Candidate B present at the recount, identified two over-voted ballots that showed clear voter intent for said candidate. In keeping with Section 58.1 of the MEA, Candidate B's team submitted an 'application for order for recount' which would allow for the manual inspection of the ballots in question.

Section 58.1 states that:

A person who is entitled to vote in an election and has reasonable grounds for believing the election results to be in doubt may apply to the Superior Court of

---

<sup>8</sup> This is according to an email message from an elector in Ward 9 who was concerned about seeing his ballot being placed in a box, to be fed into the machine at a later time when the machine was fixed or replaced.

<sup>9</sup> According to a hand written letter from an elector in Ward 9 who was concerned about the pile of ballots that was sitting beside the 'counting machine' because the machine was not working. He was told to leave his 'folded, marked ballot beside the machine and that it would be counted later'.

Justice for an order that the clerk hold a recount. 1996, c. 32, Sched., s. 58 (1); 2002, c. 17, Sched. D, s. 22 (1).

The tabulated election results indicated 40 over-voted ballots. The judge ordered the clerk to look beyond the machine reading of the ballots in question and to determine voter intent through visual inspection. All of the ballots were to be removed from the ballot boxes and the over-voted ballots identified and inspected. The judge's order stated:

[79] ...if the markings on any of those 40 ballots can show a clear intention to cast a sole vote for any one of the council candidates, even if the markings indicate that the voter has changed his or her preference, those ballots must be counted in favour of the candidate so determined by the Clerk and thus added to the tally previously declared by the Clerk, who will then determine what the final count is for each of the Ward 9 candidates.

All the ballots were removed from the boxes and fed into the tabulators. As the 40 over-voted ballots were identified by the tabulators they were set aside for further inspection. Inspection was done by the candidates, their lawyers and the city clerk and the city's lawyer. Each ballot was looked at and 5 disputed ballots were identified. They came to be identified as disputed ballots because upon close inspection voter intent could be determined by the human eye, but not by a machine, which merely recognized it as an over-vote.

The first of the five ballots was disclosed and Candidate A's lawyer identified it as a clear vote for his client, Candidate B's lawyer identified it as a spoiled ballot and the city clerk identified it as a spoiled ballot. This process was replicated with each ballot. The first four ballots showed two clear votes for Candidate A and two clear votes for Candidate B. On all four ballots the clerk identified the ballots as spoiled. On the fifth ballot, Candidate A's lawyer identified the ballot as a clear vote for his client, Candidate B's lawyer concurred and the clerk identified it as a spoiled ballot. This was the tipping point. It was clear at this point that Candidate B had actually lost by two votes, a result that will never be recorded as such, because the clerk identified all five disputed ballots as spoiled. While not considered in the final recorded results of the recount, the visual inspection of the disputed ballots proved to be essential to ensure that voter intent be respected. Had the recount resulted in favor of Candidate B, a judicial recount would have been sought.

### **Recommendations and Conclusions:**

The whole purpose of this case study is to highlight some of the deficiencies of optical scanning tabulators and make recommendations to help improve their use in the election process. My hope is that the observations made in this study serve researchers in this field as well as policy makers, to reform the guidelines in order to reflect electronic voting systems and to establish provincial-wide standards.

Firstly, the tabulators are useful to count all properly marked ballots and should continue to be used for this purpose. In order to account for the electoral process through electronic tabulators the Municipal Elections Act should be modified to detail the procedures and terminology used with the machines. Appendices containing all the different voting methods should be added to the Act with the details of the procedures for each. This would ensure continuity and clarity.

Second, in keeping with the Canada Elections Act, part 14, Article 300.1 a clause should be added to the MEA that would require the clerk or city council to order or to make a request for a recount if the votes for the top two candidates are within a pre-determined margin of difference. This procedure should be automatic. Article 300.1 in the Canada Elections Act states that

If the difference between the number of votes cast for the candidate with the most votes and the number cast for any other candidate is less than 1/1000 of the votes cast, the returning officer shall make a request to a judge for a recount within four days after the results are validated<sup>10</sup>.

Under the current guidelines for municipal elections in Ontario the responsibility falls on the candidates to call a recount.

Third, the MEA should also eliminate the clause that requires that a recount be conducted in the same manner as the original election. The case study examined here demonstrates the waste of time and taxpayers' money from an exercise designed to produce the same results. Because voter intent cannot be determined by a machine, all over-voted and ambiguous ballots should be manually counted if a recount has been ordered.

Fourth, if a manual recount produces disputed ballots, those ballots should automatically be taken before a judge for a judicial assessment. The clerk should not have the power to make the final decision of voter intent, for, as arguably demonstrated in the case study above, there is a conflict of interest when the clerk's main concern is defending the tabulators and ignoring voter intent.

Fifth, on election day when ballots are not clearly marked and the machine is unable to read them, the election officials should adapt to the elector and not require the elector to adapt to the idiosyncrasies of the machine. For a ballot that is identified as ambiguous, after five failed attempts at feeding the ballot into the machine, it should be put into the auxiliary ballot box at the front of the ballot box proper and counted manually once the polls are closed. This would eliminate the problematic electronic/human version of a 'declined' ballot described above. If an elector would like to make a political statement by 'rejecting' the ballot, those ballots should go in the rejected ballot folder and the number of such ballots counted at the end of the day and recorded as rejected ballots.

Sixth, in order to ensure transparency and legitimacy, voters should not be allowed to redo their ballot. Over-votes should be put into the auxiliary box and then counted manually once the polls are closed.

Seventh, if there are mechanical problems with the tabulators during Election Day, any ballots cast during the period that the machine is out of service, should also be put into the auxiliary box in the front of the ballot box proper while the elector is present and counted in front of scrutineers and the DRO, once the polls are closed.

Eighth, no ballots should be left sitting on a table waiting to be fed into a machine once it is properly running and after the elector has left the premises. These ballots should

---

<sup>10</sup> In an article in the Economist (2004: 42) regarding the electoral process in 2004 in Florida it states that according to State Law "there must be a manual recount of all undervotes and overvotes...in any election where the winning margin is less than 0.25%". The results in Ward 9 Kitchener produced a margin of .15%. This is based on a total ballot cast count of 4,092 where Candidate A won 1,689 and Candidate B won 1688. Whether apply the Canada Elections Act guidelines or the Florida State guidelines, the reasonable approach would be for an automatic recount.

immediately, in front of the elector, be put into the auxiliary ballot box. These ballots should be fed into the tabulator after the polls are closed.

Ninth, contrary to the suggestion from the AMTCO (Gatien 2012), that greater authority be given to the clerk for such things as deciding voting and counting methods etc., I would like to suggest that the Ministry of Municipal Affairs and Housing do the research to determine the voting system with the greatest “accuracy, invulnerability, privacy, verifiability and convenience” (Espinosa et al. 2007: 457) and adopt that method across the province. The MEA should in turn be updated with procedural details. If smaller communities require subsidies to cover the costs of highly technical equipment, then that money should be automatically granted.

Tenth, Lott (2009: 171-172) makes an important observation about under-votes. He questions whether non-votes or under-votes “are intentional or the result of problems using the voting machines”. If the Dominion optical scanner could not read the markings on the ballot, because they were outside of the box or because the marking did not cover at least 25% of the box, then they would be considered under-votes. During a recount these ballots should also be counted to ensure full inspection of voter intent. One promising thing Lott (173) points out is that the number of under-voted ballots was less when using optical scanning machines than when using punch cards or lever machines.

The eleventh and final recommendation concerns the declined ballots. When the recounts were being conducted in Ward 9, Kitchener the clerk stated that he had no idea if there were any declined ballots or how many there might be. He also stated that even if there were any, they would not be part of the recount process. According to the DRO handbook, once the polls are closed the DRO must seal the Declined Ballot envelope and record the total number of ballots on the outside of the envelope. While I would argue that the declined ballots should have been counted, it is understandable why the clerk could not know which of the declined ballots were ballots that were deliberately declined by the elector and which ones were declined because they were unreadable by the machine. Given the confusion that is created by placing both types of ballots in the same envelope, they should be handled separately. The ballots, which have been deliberately declined by the elector should be put in envelope ‘X’ and the machine rejected ballots should be put in the auxiliary ballot box and manually counted once the poll is closed.

While it is not common to have a one vote difference in any election, the results of the 2010 municipal election in Ward 9, in Kitchener, Ontario, serve as a useful case study to improve the electronic voting procedure. “Fairness of the election process is critical for democracies” (Lott 2009: 171) and if fairness is in question then procedures must be revisited. Voter intent is not ultimately mechanically determinable. It can only be determined by visual inspection. Manual recounts are the only way to ensure that every vote is counted.

## Works Cited

- AMCTO. Association of Municipal Managers, Clerks and Treasures of Ontario. *2010 Ontario Municipal Elections AMCTO Post-Election Survey: Final Report*. May 2011.
- Allers, Maarten A. and Peter Kooreman. "More Evidence of the Effects of Voting Technology on Election Outcomes." *Public Choice*. 2009. 139. 159-170.
- Balzarotti, Davide, Greg Banks, Marco Cova, Viktoria Felmetzger, Richard A. Kemmerer, William Robertson, Fredrik Valeur and Giovanni Vigna. "An Experience in Testing the Security of Real-World Electronic Voting Systems". *IEEE Transactions on Software Engineering*. July/August 2010. 36.4. 453-473.
- Canada Elections Act, 2000. <http://laws-lois.justice.gc.ca/eng/acts/E-2.01/FullText.html>
- Card, D. and E. Moretti. "Does Voting Technology Affect Election Outcomes? Touch-screen Voting and the 2004 Presidential Election". *Review of Economics and Statistics*. 2007. 89.4. 660-673.
- City of Kitchener. *Managing Deputy Returning Officer's Handbook: 2010 Municipal Election, October 25, 2010*. 2010.
- City of Kitchener. *Recount of Ballots Cast for Councillor, Ward 9: 2010 Municipal Election*. November 3, 2010.
- Clerk's Affidavit. Court File # C-1016-10. Ontario Superior Court of Justice. City of Kitchener. Dec. 8<sup>th</sup>, 2010.
- Dee, Thomas S. "Technology and Voter Intent: Evidence from the California Recall Election". *The Review of Economics and Statistics*. Nov. 2007. 89.4. 674-683.
- Economist, The. "United States: Good Intentions, Bad Technology; Voting Machines." *The Economist*. January 24. 2004. 370.8359. 42
- Espinosa, J.K., I. Goirizelaia and J.J Igarza. "OCR Applied to an Electronic Voting System". *Pattern Recognition and Image Analysis*. 2007. 17. 4. 457-461.
- Gatien, Daniel. Letter to Honourable Kathleen Wynne re: Reforms to the Municipal Elections Act. February 24<sup>th</sup>, 2012.
- Hughes, John A. and W.W. Sharrock. *Theory and Methods in Sociology: An Introduction to Sociological Thinking and Practice*. Basingstoke, New York: Palgrave Macmillan, 2007.
- Hursti, Harri. *The Black Box Report. Security Alert: July 4, 2005. Critical Security Issues with Diebold Optical Scan Design*. Black Box Voting Company. 2005. <http://www.blackboxvoting.org/BBVreport.pdf>
- Lott, J.R. Jr. "Non-voted Ballots, the Cost of Voting, and Race". *Public Choice*. 2009. 138. 171-197.
- Mebane, Walter R. Jr. "Machine Errors and Undervotes in Florida 2006: Revisited". Prepared for the Symposium, "How We Vote," Institute of Bill of Rights Law, William and Mary School of Law, Williamsburg, Virginia, March 14, 2008. <http://www-personal.umich.edu/~wmebane/howpaper2.pdf>
- Ontario Election Act, 1990 [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_90e06\\_e.htm#BK139](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_90e06_e.htm#BK139)
- Ontario Municipal Elections Act, 1996. [http://www.e-laws.gov.on.ca/html/statutes/english/elaws\\_statutes\\_96m32\\_e.htm](http://www.e-laws.gov.on.ca/html/statutes/english/elaws_statutes_96m32_e.htm)

Winch, Peter. *The Idea of a Social Science and its Relation to Philosophy*. 3<sup>rd</sup> Ed.  
London, New York: Routledge Classics, 2008.