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... if you want to learn what the spirit of the people is by means of arithmetic, it goes without saying that that's extremely difficult. – Leo Tolstoy in *Anna Karenina*

Abstract: This paper adopts an information systems perspective to study the recent American presidential election. The election may be seen as a decision making process to choose the leader to represent the wishes and interests of the people. The system supporting the process is an information system, with information technology, inputs, outputs, users, human operators, procedures, assumptions, and goals. The information system is supposed to serve as an objective instrument to support the decision making process of political election. But its functioning is deeply embedded in the political life, with its history, institutions, procedures, norms and strengths and flaws. The output of the system is thus a good enough answer, rather than the most accurate answer. All these aspects feature prominently in the recent election. In addition, the impasse in Florida reveals several problems; the more important ones are (1) the controversy surrounding voting cards that not clearly punched (2) the use of outdated technology, (3) the tension between democratic ideal and legal and political expediency.

Key words: interpretation, meaning, socially embedded, history, truth, procedures, political expediency, American presidential election.

## 1 INTRODUCTION

A democratic society follows the principle of “one person one vote” in the decision making process of choosing their leader to represent their interests in running the affairs of the country. The process takes on an institutional character to elect and control the political leaders. The elected are held accountable to the people through mechanisms (for example, the secret ballot, regular voting and competition among

potential representatives) which give citizens satisfactory means of choosing, authorizing and controlling their political leaders (Held 1996).

From the perspective of information systems, the whole exercise of political election is an information system activity using a decision making process to carry out their choice. But the procedure to implement this principle differs from country to country, reflecting the historical development, system of democratic government, institutions, and power structure. In other words, the implementation of this democratic principle cannot be adequately understood without careful attention to the personal, organizational, technological, political and historical contexts within which it takes place, a typical case of social construction of reality (Berger and Luckmann 1967).

The inputs of the information system are provided by those whose names appear on the election register. They are required to follow certain procedures and use certain technology to make known their wishes. Their inputs are then checked for validity and processed to produce the output of the whole exercise, representing the choice of the people based on the principle of democracy. As I suggested in the previous passage, the various stages of the whole exercise are deeply embedded in the historical and societal context. These features are highlighted in the impasse in the state of Florida where the two main presidential candidates of the American election were clamouring to be the real choice of the state voters. The aim of this paper is to make use of the recent election to illustrate some salient points of information systems which are contextually embedded and socially constructed. Put differently, to use the case to illustrate the roles of history, power structure, bureaucratic negligence, culture and chance in providing insights into understanding the meaning of the election outcome. I would also use insights from information systems to suggest design of a more robust and user friendly information systems to support the decision process of electing the political representatives in the USA.

The deadlock in the recent US presidential election lasted from 7 November to 12 December 2000 – an unprecedented long period of five weeks. With the amount of interest generated and the ample supply of background information made available by mass media to the general public, it represents an interesting case study for us.

I have obtained most all my news reports from The Economist for the following reasons: (a) it is known to be a quality paper, not given unreliable and sensational reporting, (b) it is available on the Internet and in most university libraries, (c) it does

not hide its pro George W Bush sympathies, and (d) in spite of the precious point, it reports information that does not shed good light on the Bush camp and maintains a high standard of journalism. Other sources are the Dutch newspapers, BBC TV and Radio world service and CNN.

The paper is structured as follows: the next section describes the system of political election, illustrating the role of history in shaping the process of political election. Section three documents the salient aspects of the recent American election from the perspective of this paper. Section four discusses these features using the vocabulary of information systems, with particular reference to organizational semiotics. The paper closes with some concluding remarks in section five.

## **2 THE SYSTEM OF POLITICAL ELECTION IN THE USA**

Open election forms a crucial part of the decision making process of a democratic political system. Election lies at the heart of the political exercise conducted by the people to decide who should occupy the office of political power. In doing so, the people give legitimacy to the office. The ordinary people choose their political leaders based on a range of desired qualities. In doing so, they give the elected representative the political mandate to govern. The whole exercise appears to be rather formalistic. For countries which have embraced the ideology of democracy, one tends to overlook the idiosyncratic elements such as electoral college and first-past-the-post. These elements are often seen by outsiders as abnormal when the winner of the election fails to obtain the majority of the votes, or when the winning party captures 70% of the parliamentary seats but manages to obtain only 45% of the total votes cast. If the reader concludes that there is no such thing as a perfect election system, he is absolutely correct.

To those who have fancied an ideal democracy in the USA, it is perhaps sobering to read Tocqueville's (1840) careful observations, analysis and judgement in his classic study of the working of democracy in America. Let us follow him by going back briefly to look at history in order to appreciate the election system in the USA. The thirteen states which first formed the USA simultaneously gained independence from their colonial British masters at the end of the 18<sup>th</sup> century. They enjoyed the political advantage of having the same religion, the same language and almost the same law, and sharing the same historical experience. As Tocqueville was quick to

observe, these reasons “were sufficiently strong to unite them to one another and to consolidate them into one nation. But as each of them had a separate existence and a government within its reach, separate interests and peculiar customs had sprung up which were opposed to such a compact and intimate union as would have absorbed the individual importance of each in the general importance of all. Hence arose two opposite tendencies, the one prompting the Anglo-Americans to unite the other to divide their strength. (p.112)” Hence the paramount political question confronting the Americans was how to strike a balance between the degree of autonomy to be given to the separate states and the amount of power to be surrendered to the union in order for the nation to form compact body and to provide for all general exigencies. A manifestation of this balance and compromise is the way the Federal legislature is organized, consisting of a Senate and a House of Representative. The two opposing interests alluded to earlier gave rise to two positions. The first position is to convert the Union into a league of independent states or a sort of congress, while the second is to unite the people of the states and to establish a government that should act as the sole representative of the nation, albeit in a limited way. “The principle of the independence of the states triumphed in the formation of the Senate, and that of the sovereignty of the nation in the composition of the House of Representatives. (ibid: p. 118)” Each state sends two senators and a number of representatives in proportion to its population. The result can be that a big state has 30 representatives and two senators while a small state has only one representative and two senators. The system of Electoral College makes the winning of the separate clusters of the electoral votes of individual states the only way to the presidency. Thus the election of a president is accomplished by weighing the popular will in separate state units. The Electoral College allows the election of a president with less votes than that collected by the loser. Admittedly this arrangement is contrary to the principle of a freely constituted nation. The merits of the system are that it protects the interests of small states and confines recounts to particular areas. It is in this spirit that the Electoral College can be appreciated.<sup>1</sup> Some readers may object that Tocqueville was making his

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<sup>1</sup> Reflecting the complex and at times convoluted history of America, the electoral college is a 200 year old institution designed at least in part to give a political edge to slave owners (The Economist 18 Nov 2000, p.74). It illustrates a historical and sociological phenomenon that an evil origin does not necessarily imply an evil outcome, at least not all the time. This is a point

observations in the 1840's and since then much water did flow under the bridge into the deep blue sea. Well, the fact that repeated attempts to dislodge the Electoral College have failed says quite a lot<sup>2</sup>. As recently as 1965, the American historian **Boorstin** (1965) was reminding us that "The tendencies of American political life were centrifugal – expressed in the American Revolution and in the secessionist tradition which long survived the Revolution. As we have seen, the American nation was not the product of any Grand National passion, and the Constitution of the United States was a precarious and novel arrangement – neither wholly federal nor wholly national. (p.427)"<sup>3</sup>

Political decentralization results in the phenomenon that elections in the USA are very much in the hands of the states, and even the counties. It also means that there is no single, standardized ballot. "The states bundle local, state and national elections together on the same ballot, throwing in state ballot initiative for good measure, so that people are voting for the local dog-catcher as well as the president. The states also decide who may stand for president; one reason Florida's ballot was so complicated was that it included large numbers of such people. The downside of federalism is that you get an anarchic patchwork of voting practices rather than a

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noticed by Nietzsche (1887). He succinctly remarks that the cause of the origin of a thing and its eventual usefulness, its actual employment and incorporation into a system of aims, lie worlds apart.

<sup>2</sup> There have been more attempts to reform the electoral college than any other piece of the Constitution. So far more than 700 initiatives have been taken, including those by heavy weights such as Franklin Roosevelt, Richard Nixon and Jimmy Carter (The Economist 18 November, p.74).

<sup>3</sup> For those of us who may wonder what magic political glue has kept the USA in one piece, read the following passage from **Boorstin** (1965): "The effective political unifying of the nation was left to the political parties. They focused practical energies and enthusiasms, and they collected local, state, and national efforts, to build a strong nation. They were different from political parties known before, or any that have developed elsewhere since. For they **were** a by-product of the American vastness and diffuseness, of the multiplicity of independent political units, and of the stark simplicity, novelty, and ambiguity of the Federal Constitution . . . .(p. 427-Q." Party organization had become a connective tissue of the nation (p.430). "Political parties thus became one of the most effective nationalizing influences in American life. (p.430)"

coherent system. And election disputes can involve ballot design, tabulation or counting. But it also has advantages. It is impossible for somebody to rig an election from the top down. National and local politics get woven together. And there is plenty of room for local experiments...(The Economist 9 Dec. 2000:70)" Here we are informed by Tocqueville that it is no good looking in the United States for uniformity and permanence of outlook, minute care of details, or perfection of administrative procedure. The broad degree of state autonomy, the inclination of rules, procedures and laws to lag behind actual social development, the impossibility of designers of election systems years ago to have foreseen all kinds of contingencies that have emerged since then, all these conspire to provide the world with some bizarre and interesting cases. For example, a dead man can win a seat in the senate. The man concerned was Mel Camahan who died in a plane crash three weeks before the election, but under Missouri state law, his name cannot be removed from the ballot. Equally strange is the state law in New Mexico which allows a tied contest to be decided by a poker game or the toss of a coin. And this law was really invoked in March 2000 to determine the outcome of a town council seat, with the candidates tossing a coin to decide their fate.

### **3 THE RECENT PRESIDENTIAL ELECTION**

With the votes of all the states except Florida in by late night of 7 November, the results of the presidential elections produced a tie in the electoral college for George Bush and Al Gore. The next president would be decided by the voters of Florida who award the winner with a block vote of 25. The subsequent heat generated is related to the close race between the two candidates reflected in the votes across the nation and in Florida. We were told on the afternoon of 14 November 2000, one week after the election was over, that Bush was ahead by 300 votes out of almost 6 million votes cast. There were 84,000 disputed ballots in counties that Bush won, and 95,000 in counties that Gore won. The margin of error (179,000 votes) is almost 600 times greater than the margin of victory. It is like trying to find out the heavier of two objects. The reading on the weighing scale for object A is 3,000,000 grams and that for object B is 3,000,300 grams. The margin of error is 180,000 grams. Any student trained in elementary science of measurement will tell us that we honestly cannot say which object is heavier. To know the real answer, we need a more sensitive weighing machine. In the case of election in Florida, two methods to use in the search for the

real winner are (1) to vote again, or (2) to recount all the votes. As these two contingencies were not foreseen and incorporated into the state laws, the real wish of the state citizens became secondary in a political football game with role of referees being assumed by the learned judges. And the game degenerated into a grotesque picture for the USA to present to the world, and some would see the Florida saga as an indictment, if not a travesty, of American democracy.<sup>4</sup> Just in case we information systems professionals are quick to sneer at the legal craftsmen and Florida legislative assembly, we must reflect on the difficulties of designing foolproof or fail-proof IT-based systems. A common problem is to anticipate the exception. “As any business person will attest, it is the exception that potentially cripple an application. (Lacity and Willcocks 1995: p.236 )”

To cut the story short, we do not really know who has won the majority votes in Florida. One need not be cynical to refer to Bush as the accidental president. He has come to occupy the Oval Office as a result of a complex legal process, with decision taken by a divided Federal Supreme Court voting on largely partisan lines. “ Mr Bush has now won the presidency through a messy compromise that essentially says: it was possible to have a fair recount but there is no time for one now. (The Economist 16 Dec 2000: 52)”

Apparently the public were getting tired of the national soap opera. Instead of claiming that a due process of seeking truth had been aborted and insisting that the authorities put in greater efforts to find out the actual winner, they expressed a kind of practical commonsense and political maturity that are lacking among the political elites. A poll taken on the day after the Supreme Court decision revealed that 80% of those asked said that they were prepared to accept Bush as a legitimate president.

### **Some Complicating but Relevant Facts**

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<sup>4</sup> A joke circulated on the Internet called for peacekeeping troops from ex-Yugoslavia to be sent to maintain order in Florida.

The American authorities are fond of insisting that other countries conduct their election “properly”. A condition often used is that there must be independent overseers of election, a procedure that the USA itself does not observe.

In addition to having a highly decentralized election system, America prefers to trust political appointees to carry out politically sensitive work that is handled in other countries by civil servants. The country does not believe in an integral, dedicated and competent bureaucracy that can be trusted to manage the administrative routines of an election. It is thus better to let the devils keep a watchful eye on each other's conduct. We have then two interesting cases. Mrs. Katharine Harris, secretary of state of Florida, was a co-chairperson of the Bush's election campaign in Florida. Yet he holds the constitutional position as the official arbiter of the Florida's election. America prefers to trust political appointees to carry out politically sensitive work that is handled in other countries by civil servants. On the other hand, the election was supervised by the state attorney general, and he was at the same time Gore's campaign manager.

The double roles of Mrs. Harris; that the state's governor was George Bush's brother Jeb; that there were so many faulty machines in black areas. Put these three facts together and the smell of fish is in the air. You do not have to be a fervent civil rights activist to suspect politically biased oversight with racial undertone, and you do not need to embrace Marxist theory of class struggle to be persuaded that rich people are more likely to get their votes counted than poor ones.

#### **4 DISCUSSIONS**

Students of information systems can recognize at least a few salient features of IS in the recent American election. To begin with, there is the use of information technology. Other aspects are the design of the election system; the role of social and institutional factors in influencing the processing and interpreting information; the rationality revealed in the process as the event unfolded; the phenomenon of unintended consequence. These aspects are discussed in more detail below.

##### **4.1 Use of Information Technology**

To draw on Lyytinen's (1987) concept of information system development method, the information system supporting the election was designed and developed using an organized collection of concepts, beliefs, values, and normative principles supported by material resources. Even though the technology (as a kind of material resource) has improved a lot, and concepts of political participation and social values have changed a lot since the founding of the American nation, there is a kind of institutional inertia

that continued to favour the old practice. For example, New York uses 20,000 mechanical lever machines that were first introduced in 1892 (The Economist 18 Nov. 2000). About 12% of voting stations still use pencil and paper. It is almost a joke **that** the world's richest country and technologically most advanced country still relies **on** such outdated machines for such important political process. If the recent election saga can prove to be of some value to future generations, it can at least serve as an occasion to focus people's attention to the need to adopt modern IT in their redesigned voting system. If Brazil can benefit from touch screen technology, it is difficult to see why the USA **cannot** do it. An improved It infrastructure would mean an improved IT platform in the framework of Stamper (1973, 1998).

In arguing for use of modern IT in supporting the election process, I am **not** arguing for what is often **labelled** as the electronic democracy. For example, Internet conferences have been often referred to as electronic town-hall meetings. Such term borrows the use of town-hall meetings in American past political practice. It has the merits of direct, two-way communication as opposed to the one-way communication associated with newspapers, radio and TV. However not all political commentators are persuaded by such merits. For example, Schlesinger (1997) says that interactivity encourages instant responses, discourages second thoughts, and offers outlets for demagoguery, egomania, insult, and hate. In too interactive a polity, a common passion could sweep through a people and lead to emotional and ill-judged actions. Such opinion finds echo in Castells (2000). The Internet has done little thus far to foster the reasoned exchanges that refine and enlarge the public views (Schlesinger 1997, p.7). This is a strong statement which needs to be qualified. For example, many Internet newsgroups, mailing lists, etc. carry numerous spirited debates that do lead to new insights and productive collaboration instead of just generating (much publicized) flame wars. A good reference containing many examples of constructive group interaction is Rheingold (1993).

#### **4.2 The Rationality of Social Action**

The expediency of pragmatism, i.e. the need for a final answer and a smooth political transition, is placed above the need to abide by the political ideal of finding the real wishes of the voters. Political life draws on a spirit that is different from that of theory of scientific measurement. It is oriented to the demands of practice, and thus is guided by action rationality (Brunsson 1982). Put differently, it operates under

another set of logic which privileges pragmatism, plausibility, tradition, rule following, historical compromise and social stability. These are hallmarks of good enough solution or satisficing solution (Simon 1957). These are the heuristics that appeal to the practically minded creatures.

To the social critics, political life values these qualities of expediency more highly than truth, justice, accuracy, fairness and equality. Both the practical minded politicians and their social critics are right. The conflicts between them form part of the tensions existing among the criteria of truth, goodness and beauty, a fundamental and inherent feature of decision making process (March 1994).<sup>5</sup> In the case of the election, goodness here does not have the connotation of spiritual morality; it is more closely related to the time constrained needs to facilitate a smooth political change of office within the bounds of the institutional framework. In organizational life, goodness can mean rule following (procedural rationality) or be based on the final results (consequential rationality as expressed in the saying “All is well that ends well”).

### 4.3 Design of the Election System

To the well wishers of American democracy, the recent embarrassing presidential election could well be a blessing in disguise. It has shed the limelight on a few archaic aspects of the election system and hopefully it can concentrate the minds of the body politic and act as a strong motivating factor to reform the system. To begin with, the Electoral College, while continuing to safeguard the interests of the smaller states, can reflect better the choice of the majority of the voters within the states. For example, instead of a kind of winner take all the block votes of a state (25 votes in the case of Florida), a county or a cluster of counties can reward one vote to the victor, with one or two bonus votes as extra reward to whoever carries the state outright. This is based

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<sup>5</sup> To the philosophical minded, this problem has a pedigree of profundity that has engaged the life long attention of the great German philosopher Immanuel Kant (1724 – 1804). His three major works are devoted to a careful reflection, analysis and examination of the issues related to truth, goodness and beauty. His first critique, *Critique of Pure Reason*, is devoted to such a study of truth. The second critique, *Critique of Practical Reason*, is devoted to a study of goodness. The third critique, *Critique of Judgement*, is devoted to a study of beauty. It is a recurring theme of philosophy, western or otherwise (Cousin 1853; Fung 1980).

on the concept of proportional representation and is already being followed in Maine and Nebraska. While the foundations need not be tempered with, the details need to be upgraded to take care of the weaknesses that have emerged, and to get the system to function in line with the changing values, beliefs and social conditions.

Fairness, equality of voters within the same electoral zone, and their wishes made known without any chance of being tempered, and within a given time limit – these are the essential elements of designing the election system. And these features are embedded in the social and institutional environment<sup>6</sup> which influences the processing and interpreting of information (Held 1996). IT should be pressed into service to enhance these features. Though these essential elements are few in numbers, they can have immense implication for the design of the IT-based system. For a comparative study, I may refer to another information system that is deeply embedded in the societal context, namely accounting information system. Here, to be useful, financial information must be presented in a standard form (Bodie and Merton 1998). This simple yet important fact has exerted immense influence on the design of accounting systems, and it has been richly commented on by Boland (1999).

The elements just mentioned are issues that organizational semiotics consider as certainly important. Again with reference to works of Stamper (1973, 1998), these issues feature prominently in the semantics, pragmatics and social world levels of his framework.

#### **4.4 The Phenomenon of Unintended Consequence**

In its unprecedented action to decide the identity of the president, the of the American Supreme Court ignores a piece of highly regarded legal wisdom, that is, not to venture into a political thicket. In doing so, it runs the immense risk of reducing public's confidence in the court. Reverence for the court is based not only on its special position enshrined in the constitution but more importantly by virtue of its exemplary conduct over the years. And it is more difficult to build up such capital than to spend it. Justice Stevens expressed it well in his dissenting statement:

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<sup>6</sup> Section 2 and 3 have dealt with some of these, e.g. partisans managing supervising the election process, the court acting as a referee in disputes. Of late there have been persistent criticisms of the damage caused by money politics. Though very important in itself, it is beyond the scope of this paper to dwell on it.

“Although we may never know with complete certainty the identity of the winner of this year’s presidential election, the identity of the loser is perfectly clear. It is the nation’s confidence in the judge as an impartial guardian of law.” It is a textbook case of unintended consequence of social action (Merton 1963; Giddens 1984).

One should also raise another disturbing question about the judicial philosophy that informed the verdict of the court. For example, in its decision, the Federal Supreme Court has essentially accepted two departures from tradition:

1. Florida has traditionally accepted only votes that are clearly marked.
2. Federal court traditionally deferred to state court on matter of state laws.

Again this has not been intended. The complex and complicated legal process is an information systems activity that is invoked to solve the problems surrounding the interpretation of the election results (a piece of data) in order to produce something that is meaningful (information). And the Federal Supreme Court has in its deliberation produced at least two unintended consequences. This phenomenon of producing unintended consequences is also present in the use of strategic information systems planning, as noticed by Heng and Newman (2000) in their contribution to a conference on organizational semiotics.

## **5 CONCLUDING REMARKS**

A rather academic way of describing at the American presidential election is to say that it is contextually embedded and socially constructed. I am presented the case studying to a group of exchange students following a workshop on decision making process. Because the event was very much in the news they followed the development quite closely. However it was with a organized account of the historical, political and social background that the students were able to appreciate the working of the election system and the shortcomings of the IT system used to support it. It is then relatively easy to draw their attention to the social institutional dimensions in interpreting the output of information systems that are deeply embedded in the societal context. It is especially so in systems such as accounting where the margin of error (read manipulation) can amount to 10%.

In fact, awareness of the contextual embeddedness and social construction need to be extended to other aspects of IS, such as the process of strategic change (Galliers and Swan 1999) and technological innovation (Clark 1987; Fleck 1994).

Using an event that is widely reported in the mass media as a case study has a distinctive advantage. To put this point across, allow me to use the example of reading one very well written newspaper article of an event, say X. No matter how objective the journalist tries to be, we are only able to interpret what is written. We are not able to go through his experience in the phase of sensemaking (Weick 1995). In other words, we were not present at the scene with all its sounds, smells and sights that must be chosen, structured and processed by the journalist, as it were, on our behalf. That is why students fed on a diet of case studies are not quite able to make sense of the myriad conflicting information that is obtaining in a real business situation. To quote a student taking a course in investment, "Here we have a few top experts giving their views on the financial market. And each tells a different story. How am I going to make sense out of it? Whom am I going to believe?" Students often cannot have access to the mountain of rich and conflicting information that is processed by textbook writers or their professors to illustrate some salient points. Even research papers documenting rich case studies share some of these weaknesses (Klein and Myers 1999).

One way to cope with the inherent problem of case study is to use an event that is widely reported. By reading many different written accounts of the event, and following the different radio and TV reports, we can compensate for our absence on the scene of event. In doing so, we can share some of the sensemaking experience, not matter how "second-hand", that is the privilege of the journalists. This effort should be combined with a study of the history and other backgrounds of the event, and we would be richly rewarded, both in terms of confusions while learning and insights thereafter.

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