

# ELECTION MONITORING, TECHNOLOGY AND THE PROMOTION OF DEMOCRACY: A CASE FOR INTERNATIONAL STANDARDS

JULIA A. GLIDDEN, Ph.D.\*

The study of e-Government has exploded onto the academic and policymaking scene over the past year. To date, however, the bulk of research focuses on the role of e-Government in the revitalization of established democracies. Will e-Government reverse a steep decline in voter turnout in Western democracies? Will it transform the traditional representative decision-making model into a more direct one? Can it narrow the alleged democracy deficit in supranational organizations like the European Union?

The logic behind this intellectual focus is self-evident given information technology has taken its strongest hold to date in countries boasting a mature technological infrastructure and high per capital income. And yet, global trends show the adoption of information systems technology is not wholly linear. In recent years, for example, many developing countries have leap-frogged past the developed world in the mobile phone arena. Moreover, many now look set to do the same with regard to the broader field of e-Government.

If this is the case, critical questions then become:

- What impact will information technology (IT) have on the conceptualization and development of democratic structures in developing countries?
- Which existing IT models and programmes provide a replicable blue print for strengthening civil society and enhancing the democratic process?
- How can governments, non-governmental organizations and technology companies work together to ensure the application of technology to the election process, in particular, is used to enhance, rather than undermine, emerging democratic institutions and structures?

This article takes as its starting point the fact that technology is being applied to the election processes in developing democracies at a growing rate. As such, I set out in following discussion to examine the implications of this development for international democracy building efforts. In doing so, I hope to establish a contextual framework for

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\* Julia Glidden is Vice President, Public Affairs at election.com, a global election software and ballot management company.

evaluating the broader issues and concerns surrounding the relationship between Information Technology and democracy building.

In Section One, I examine the international trend toward the active support and promotion of democracy. In Section Two, I explore the evolving relationship between democracy-building efforts and the deployment of election technology. Finally, in Section Three, I review a new international initiative between governments, international organizations and technology companies to help facilitate this relationship.

## I. DEMOCRACY AS AN INTERNATIONAL NORM: THE NORMATIVE AND EMPIRICAL CONTEXT

Throughout the 20<sup>th</sup> century, the international system has undergone a significant shift away from the sovereignty-based paradigm that has traditionally driven international relations toward a greater focus on the rights of the individuals within a state itself. This sea change has largely centered on an evolving consensus at the international level that democracy is not only the most legitimate form of government, but also the ultimate prerequisite for membership in the international community of states.<sup>1</sup>

The early antecedents of democracy as an international norm date back to the Post-World War I era and the introduction of the Wilsonian right to self-determination. In the Post-World War II era, the Universal Declaration of Human Rights reinforced this notion through Article 21 which declared that "Everyone has the right to take part in the government of his country." At the time, Article 21 stood at apparent odds with Article 2 (7), or the so-called 'Sovereignty Article, in the United Nations Charter.<sup>2</sup> Nevertheless, the UN bolstered the notion of an international right to free and fair elections through its support, beginning in Togoland in 1956, for independence referenda in the post-Colonial world.<sup>3</sup>

During the 1960's and 1970's cold war tensions between the superpowers effectively hindered efforts to deepen the establishment of democracy as an international norm. The movement did not stall altogether,

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<sup>1</sup> The OAS and Council of Europe make democratic government a prerequisite for membership, as did the April 20, 2000 Quebec Free Trade Talks, which suggests a prudential and moral shift away from state-centered realist paradigm.

<sup>2</sup> For an insightful, interpretative analysis of the tensions between Article 21 and Article 2 (7), see Abioudun Williams, Jose Alvarez, Ruth Gordon and W. Andy Knight, *The 'Right to be Left Alone' and the General Assembly*, Jose E. Alvarez in Article 2 (7) Revisited, available at [www.yale.edu/acuns/NEW\\_publications/2.7/2.7.Chap1.html](http://www.yale.edu/acuns/NEW_publications/2.7/2.7.Chap1.html).

<sup>3</sup> Gregory H. Fox and Elizabeth F. Defeis examine the legal and normative underpinnings of an emerging international consensus on democracy as an international right in companion pieces to this essay. See generally 19 WIS. INT'L L.J. (2001).

however. International support for democratic principles could still be seen in South Africa's increasing isolation from the international community from the 1960's onward, as well as in rise of popular transnational human rights organizations such as Amnesty International in the 1970's. Nevertheless, it was not until the 1980's that the stage was genuinely set for a paradigmatic shift in the way in which we view and discuss international efforts to promote democracy.

#### A. DEMOCRACY BUILDING AND THE ADVENT OF ELECTION MONITORING

The notion of democracy as a legitimate matter of international concern received a significant boost in the 1980's from the global transition to democracy that first began in Latin America and ultimately engulfed the former Soviet Union and its satellite states. This dramatic development not only paved the way for the collapse of the cold war, it also facilitated unprecedented non-governmental interest and involvement in the promotion of democratic governance.

Throughout the cold war, international issues surrounding democracy and human rights inevitably fell captive to the competing interests of the United States and the Soviet Union. Definitional battles over the ultimate meaning of democracy prevailed, and support for state-building was predominantly regarded as the domain of governments rather than individual actors and organizations. This notion began to change significantly, however, with the rise of international election monitoring, among other factors.

Through its Office of Democratic Institutions and Human Rights (ODIHR), the Organization for Security and Cooperation in Europe (OSCE) began to adopt election monitoring during this period as a primary means to increase democracy throughout its member states. At the same time, not-for-profit organizations<sup>4</sup> also gained growing recognition for their commitment to democracy-building initiatives, beginning initially with election monitoring.

As a practice, election monitoring was initially intended to bolster emerging democratic structures by detecting and deterring election day fraud. By dispatching teams of observer delegations to monitor election day proceedings, international organizations hoped to enhance the credibility of

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<sup>4</sup> See generally The Carter Center, the International Foundation for Election Systems, the National Democratic Institute in the United States, the International Institute for Democracy and Electoral Assistance (IDEA) in Sweden and the Instituto Interamericano de Derechos Humanos and Centro de Asesoría y Promoción Electoral [IIDH/CAPE] in Latin America.

the domestic electoral process and deliver a strong message of moral support to local democracy activists.

Despite these lofty goals, election monitoring was not without its critics, particularly in its early days. Democracy proponents and foes alike questioned the potentially corrosive impact on sovereignty of international involvement in domestic elections.<sup>5</sup> Others challenged what I would refer to as the 'Year of Living Dangerously' scenario, wherein hordes of Mel Gibson/Sigourney Weaver-type Westerners swarm into a developing democracy hours before an election, overwhelm the local infrastructure, and depart just as quickly.

Thomas Carothers, an election monitor himself, dubbed this early pattern "election tourism," and, along with others, condemns the wide-scale deployment of so-called amateur observers with little or no understanding of local election processes, let alone the local language and culture.<sup>6</sup> A seeming explosion in the number of monitoring organizations complicated the situation even further during election monitoring's initial stages. The 1986 Nicaraguan election, for instance, saw the influx over 80 separate organizations to monitor election day proceedings alone.

Early setbacks and criticisms aside, election monitoring quickly became an established international practice in the 1980's. By the late 1990's, commentators frequently noted that "election observation is the best established, most visible, and often best-funded type of democracy-related assistance."<sup>7</sup> One of the factors underlying the widespread acceptance of the practice lay in the increasing sophistication and scope of key sponsor organizations.

## B. BEYOND GROWING PAINS

By the 1990s, most election monitoring organizations generally acknowledged that they had focused too much on the procedural, technical aspects of election day throughout the 1980's and had not paid enough attention to the events and processes surrounding the pre- and post-election

<sup>5</sup> Delegations observed elections at the invitation of the government, arguably confirming the principle of sovereignty. Nevertheless, as international lawyers will note, the widespread deployment of international delegations to oversee a fundamental domestic function like elections represented an important departure from conventional norms of state and established strong precedent for future challenges to the traditional state-centric paradigm. See, e.g., Susan Marks, *The End of History: Reflections on Some International Legal Theses*, 8 EUR. J. INT'L L. (1997), available at <http://www.ejil.org/journal/Vol18/No3/art5-01.html>.

<sup>6</sup> Thomas Carothers, *The Rise of Election Monitoring, 'The Observers Observed'*, 8 J. OF DEMOCRACY 22 (1997).

<sup>7</sup> *Id.* at 19.

period. As a result, international election monitoring witnessed a marked shift in the 1990's away from a near-exclusive reliance on short-term missions toward the inclusion of observation teams with long term missions of up to six months or more.

In contrast to the 1986 situation in Nicaragua, the UN played a significant role throughout the entire 1990 election process. Moreover, in the subsequent 1996 election, many of the over 14,000 accredited observers remained in the country after election day to observe a difficult and potentially contentious counting process. By fostering a general atmosphere of stability and calm, this longer-term presence is widely credited with helping to ensure a peaceful election outcome in Nicaragua.

The OSCE was among the first organizations to pioneer the deployment of Long Term Observation teams (LTOs) in the pre- and post-election period to monitor the broader political context surrounding an election. In contrast to shorter-term counterparts, LTOs set out to observe election activities in their totality -- from the first appointment of election agents through to campaigning, voting, counting and declaring results and post-election activities. As a consequence, mainstream monitoring organizations, like the OSCE, now routinely rely on a comprehensive set of procedures and checklists to assess the validity of an election.<sup>8</sup>

At the start of a mission, for instance, monitors are generally briefed on the domestic political environment preceding the election and introduced to members of the election committee, media and political parties. Once in the field, delegates are put in touch with local NGO's, political officials and election officials, and asked to evaluate the local political context. On election day, they are given a standard evaluation form to measure critical factors.<sup>9</sup>

Collective data from these field reports, along with pre-election briefings, are used to form the basis of a delegation's ultimate assessment of the election itself. If the election is found to be within accepted international norms, a small team will generally remain in the field to handle election complaints and help ensure against post-election retribution. In the event

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<sup>8</sup> The movement away from short-term missions to LTOs was largely a response to two concurrent developments. On the one hand, autocrats had become increasingly sophisticated throughout the 1980s in the way they rigged elections, often tampering with the channels of civil society in the run-up to an election rather than manipulating the ballot box itself. On the other hand, international organizations themselves recognized the need to strengthen domestic civil society to have a lasting impact on the development of sustainable democratic structures.

<sup>9</sup> For example, the opening and closing of polls, voter authentication, the privacy of the voting booth, the presence of the military, incidents of ballot stuffing and/or voter intimidation, vote tabulation and results transmission.

of large-scale election day irregularities, a larger team may remain on-site to track and evaluate ensuing developments.

In terms of conventional election monitoring, the past twenty years has seen a steady evolution toward the international institutionalization of accepted norms, principles and practices in the promotion of and support for democracy-building initiatives. I say 'conventional election monitoring,' however, because as sophisticated as international organizations have become in deploying monitors to ensure against age-old factors such as polling place fraud, the rapid deployment of technology throughout the election process is presenting new and unanticipated challenges to election monitoring.

## II. TECHNOLOGY AND THE PROMOTION OF DEMOCRACY

The election problems that plagued the 2000 US Presidential election in Florida last November cast an international spotlight on the issue of election management in general, and technological solutions specifically. In a nutshell, the Florida debacle:

- Exposed the defects of current voting systems to a global public
- Created unprecedented demand for improved voting systems
- Generated pressure on public sector election officials globally, to update or replace existing systems

In both the United States and abroad, political leaders and the public alike are increasingly questioning why, in the midst of the current technological revolution, many jurisdictions are still using 17th technologies to run elections. This question is not without merit. In established democracies, for all the talk about e-Government and e-Democracy, voting remains one of the very few governmental processes that has not yet been subject to a major reengineering effort to reduce costs and increase efficiencies. Paper is still the norm in the UK and France, while the United States is riddled with a veritable hodgepodge of systems ranging from paper to more sophisticated touch screen voting devices.

As Pippa Norris notes, many observers believe that digital technology can provide a means for newer democracies to consolidate democratic gains by strengthening democratic institutions and civic society,

and providing new vehicles for opposition movements.<sup>10</sup> Whether or not one accepts a positive correlation between technology and good governance, this thesis is particularly relevant in the elections arena, where many developing countries are at least one, if not two, generations ahead of their developed counterparts.

#### A. THE LEAP FROG EFFECT

Just as the 1990's saw the increasing sophistication of international election monitoring practices in many emerging democracies, it also saw the deployment of increasingly sophisticated election technology, particularly in Latin America. Between 1992 and 1999, for example, Panama implemented an electronic voting pilot that began with six machines and was eventually tested in sixteen polling stations. In the pilot, voters were asked to cast their vote using touch screen computers that displayed an exact duplicate of the paper ballot, including photographs of the candidates. After first receiving a pre-determined code, printers attached to each computer would print out a tally sheet that recorded votes cast by office, party and candidate. This experiment was ultimately suspended in 1999 due to technical concerns, but there is talk of Panama returning to national e-voting in 2004.<sup>11</sup>

The Columbian government is actively encouraging the automation of voter registration and balloting. On March 8, 1992, the government initiated a computerized voting pilot using touch screen technology on the Apple Quadra computer. The following year, it introduced a computerized voter registration system and digital photo identification card with bar code and microprint in the early 1990's that allows voters to choose their own polling place location. Under the system, photo images are collected in forty-seven data collection centers that are connected via dial up and, ultimately, stored on optical disks by the Registrador Nacional del Estado Civil (RNEC).

In 1995, the government expanded upon its early electronic voting pilot using software that, as IFES reports, is adaptable to other countries.<sup>12</sup> In this pilot, 432 department delegations were established to compile the

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<sup>10</sup> Pippa Norris, *Digital Divide: Civic Engagement, Information Poverty and the Internet Worldwide* ch. 5 (2001)

<sup>11</sup> For details on the technical aspects of this experiment, see: Panama General Elections: May 2, 1999, IFES Election Observation Final Report *available at* the F. Clifton White Resource Center, International Foundation for Election Systems, 1101 15<sup>th</sup> Street, NW, 3<sup>rd</sup> Fl, Washington, DC.

<sup>12</sup> See Columbia: IFES March 1995 Technical Mission Report, *available at* the F. Clifton White Resource Center, International Foundation for Election Systems, 1101 15<sup>th</sup> Street, NW, 3<sup>rd</sup> Fl, Washington, DC.

vote via phone, fax and modem. Computers were installed in areas with more than 20,000 voters in an effort to tabulate the final vote by midnight.<sup>13</sup>

Brazil has also emerged as a technological leader in the elections arena. In the 1998 election, every voter in the country cast their ballots via computers connected to a secure local area network. More recently, Mexico's Federal Election Institute (IFE) announced its decision to introduce state-of-the-art face recognition technology throughout the country to help ensure against duplicate voter registration.

While Latin American countries are certainly ahead of many other countries in the application of technology to the voting project, they are by no means alone. A quick world tour underscores the extent to which many election functions are currently being modernized in transitional democracies:

Albania, for instance, receives election results from Zone Commissions via computer. Bangladesh is considering installing fingerprint scanners at polling stations. Cambodia installed a computerized voter registration system. The Dominican Republic used a telecommunications network to relay election results since 1994. Estonia recently announced plans to introduce Internet voting. Ghana uses a centralized computer infrastructure for elections management. Haiti adopted its voter registration software to allow for 'unofficial' vote counts. Jamaica actively explored an electronic registration and voting system to combat fraud and corruption. Kyrgyzstan relays election tallies over the Internet and posts them on the World Wide Web. Moldavia is interested in installing electronic voting machines. Nicaragua transmits election results via telegram and fax. The Philippines piloted optical scanning equipment and pursued an aggressive modernization plan. Romania experimented with sophisticated voter identification cards. South Africa conducted one of the most technologically advanced elections in the world in 1999, utilizing everything from sophisticated GIS technology to a nationwide satellite link-up. Singapore and South Korea are currently evaluating proposals out for electronic polling-place products.

The media and corporations have not been immune to this development either. From Indonesia to Serbia, high-tech media centers are becoming an election night staple, if not badge of honor. In June 1999, *Election Update*, the official newsletter United Nations Development Programme's Indonesia's Electoral Assistance Programme, boasted a front page picture of Indonesia's media center with the caption "the most

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<sup>13</sup> See *id.* IFES reports that this measure was designed to enhance electoral credibility by limiting the capacity of local drug dealers to interfere with vote tabulation and reporting.

sophisticated of its kind ever in Indonesia, the Joint Operations and Media Center was buzzing with journalists from around the world on election night."<sup>14</sup>

Beyond high-tech media hype, the 1999 Indonesian election even raised the prospect of corporate election sponsorship. Prior to the opening of polls, the UNDP's press office publicly announced to the world media that PT Ericsson Indonesia had donated seventy-six handphones to UNDP "to support the electoral process in Indonesia." Interested journalists were further informed that "The handphones are worth about Rp2 million apiece, and will be used to support the overall management and coordination of the electoral assistance programme."<sup>15</sup>

The prospects of voters arriving at polling stations being greeted by banners proclaiming "This Election Proudly Brought to You By..." may still be a little far-fetched. Nevertheless, there is growing recognition among political leaders of the symbolic and practical importance of IT combined with the growing deployment of wireless technologies. This presents governments and international NGOs with a relatively new actor in the democracy building arena – the high tech private sector.

## B. VENEZUELA AND THE ELECTION MONITORING CHALLENGE

The introduction of new election technology need not necessitate a fundamental change in conventional democracy enhancing activities like international election monitoring. It does, however, introduce a new and increasingly critical element that must be accounted for in evolving monitoring practices. Simply put, the key question for election monitors today is how best to ensure that IT will help to bolster the overall efficiency, transparency, credibility and legitimacy of the electoral process rather than become another tool in the hands of despots?<sup>16</sup>

IFES has always been primarily focused on the technical aspects of elections, rather than election monitoring per se. As such, the Foundation

<sup>14</sup> Election Update Official Newsletter UNDP Indonesia's Electoral Assistance Programme, Vol. 1, No. 10, 1 (June 18, 1999), available at [www.un.or.id/ge/newletters/Vol1-10/newsletter1.htm](http://www.un.or.id/ge/newletters/Vol1-10/newsletter1.htm).

<sup>15</sup> See *Ericsson Donates Handphones for Indonesian Elections* (May 20, 1999), available at [http://www.un.or.id/ge/newsrelease/eric\\_e.htm](http://www.un.or.id/ge/newsrelease/eric_e.htm).

<sup>16</sup> In Columbia technology, IFES tell us, bolstered confidence in the transparency and accountability of the process: "Most recently, the computerization of the electoral process has been subjected to the scrutiny of external systems auditors, increasing the confidence of the Columbian population in the electoral process even further." Columbia: IFES March 1995 Technical Mission Report, available at the F. Clifton White Resource Center, International Foundation for Election Systems, 1101 15th Street, NW, 3rd Fl, Washington, DC.

has played a leading role helping transitional democracies to evaluate and implement election technologies.<sup>17</sup> As a May 2000 joint mission to Venezuela reveals, the Carter Center and NDI have also begun to take up the challenge of ensuring the adequate implementation and usage of election technology.

In November 1998, Venezuela made electoral history through the introduction of what the Carter Center has described as "the world's first nationwide electronic network to transmit voting results to a central authority immediately after the polls close." As the Carter Center observed in its final election report "the automated process, in which optical scanners receive and count ballots and then transmit the results to central headquarters via modem, involved some 7,000 voting machines for 92 percent of the voters, while 8 percent still voted manually."<sup>18</sup>

Venezuela's initial experimentation with electronic vote transmission earned high marks for its technical aspects. The same cannot be said for the subsequent May 28, 2000 elections, which were postponed at the last minute due to a variety of political, administrative and technological missteps.

Between 1998 and 2000, changes in the Venezuela constitution mandated a so-called "Mega-election" in which 33,000 candidates nationwide vied for 5,000 positions. The requirements of this election posed a unique series of needs, including a database capable of handling over 30,000 candidate names and profiles, up to 1,200 unique ballot styles and over 40 million printed ballots. As in 1998, Venezuela's National Electoral Council (CNE) outsourced the bulk of election management to predominantly foreign-owned vendors, including Spanish-based Indra, which acted as the systems integrator in 1998, and US based ES&S, which was new to the Venezuelan election process.

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<sup>17</sup> In 1994, for example, the Electoral Advisory Committee (EAC) in Jamaica asked IFES to conduct an independent assessment of a proposed new electronic registration and voting system. Up that point, the EAC's only source of information had been election vendors and systems integrators, and the Commission wanted to ensure against bias. In response to the request, IFES deployed a technical team to interview the proposed vendors and to conduct an extensive audit of the system. In its final report, IFES found that the proposed technology was well-developed and should function as planned, but warned that a new combination of technology presents inevitable challenges and that operating conditions in Jamaica were less than ideal. Jamaica: IFES 1994 Technical Mission Report, available at the F. Clifton White Resource Center, International Foundation for Election Systems, 1101 15<sup>th</sup> Street, NW, 3<sup>rd</sup> Fl, Washington, DC.

<sup>18</sup> Laura Neuman & Jennifer McCoy, *Observing Political Change in Venezuela: The Bolivian [sic] Constitution and the 2000 Election* 17 (Feb. 2001), available at <http://www.cartercenter.org/REPORTS/venezuelafines1200english.pdf>

From the outset, private vendors and outside technical assistants alike expressed concerns about the feasibility of conducting a successful election under the Council's tight timeframe. Despite these warnings, the CNE insisted throughout the pre-election phase that plans were on course. Nevertheless, to help allay growing national doubts, the Carter Center took the unusual step of proposing that "international observers conduct an audit of a small sample of voting machines on the night of the election to boost the deteriorating confidence in the technological aspects of the election."<sup>19</sup>

The Council ultimately rejected the notion of using international observers to audit the technology, but agreed to hire a private firm. In the end, however, the CNE was forced to suspend its initial search because it ran out of time. The suspension foreshadowed an even more unsettling development. On May 25<sup>th</sup>, the Council bowed to the inevitable and postponed the May 28 election until July. After establishing a new election date, the CNE decided to implement 3-phased auditing system that relied upon one organization to review its own management, another to assess the readiness of the voting machines, and a third to audit the reading and totalizing of ballot results on election day.

As former-President Carter himself observed at the time, polling day revealed clear operational problems with the voting equipment:

On election day, our observer teams assessed voting procedures at 270 mesas and witnessed a number of problems. Contrary to the CNE claims, about 20 percent of the voting sites had serious problems with the machines, some not functioning at all and others rejecting ballots for governor or president unless they were tried repeatedly. Despite this, most voters were very patient and insisted on repeated efforts to use the machines instead of the fallback system of manual counting. Rosalynn and I visited 36 mesas with machines and two small ones using manual counting; seven of the machines experienced difficulty during the day.<sup>20</sup>

The post-election audit of the election proved equally unsatisfactory. Despite repeated requests that the vote tabulation review be conducted immediately following the close of polls in full public view, the CNE chose to delay the audit and limit public access. The audit itself consisted of a manual recount to assess the accuracy of the electronic tabulation. Despite this relatively straightforward process, the Carter Center

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<sup>19</sup> *Id.*

<sup>20</sup> Jimmy Carter, *Trip Report: Venezuela* (July 26 - 31, 2000), available at <http://www.cartercenter.org/REPORTS/veneztrip.html>.

reported that it "found inconsistencies in methodology, erratic hours, and incomplete audits. Although we witnessed deficiencies in the portions of the audit observed we were unable to evaluate the entire audit process."<sup>21</sup> In addition, Center also observed the audit took far longer than anticipated and, as a consequence, some auditors became afraid for their safety as the process continued.

In its final election assessment, the Carter Center recommended pre- and post-hoc audits of election machines and software, and their ability to properly read ballots and transmit results, become a standard feature of electoral review. This recommendation represents an important step in the evolution of election monitoring. The move underscores a growing recognition that the introduction of new technological solutions, from voter registration to vote tabulation and reporting, has interdependent effects on the overall democratic process, and represents an increasingly important element in democracy building initiatives.

### III. TOWARD INTERNATIONAL STANDARDS

As the Venezuela example suggests, the widespread use of technology introduces the need for new ways of thinking about common practices and standards in the evaluation of electoral proceedings. Technology, by its very nature, is a specialist area. How, then, do technological laypersons "monitor" computerized vote transmission, electronic voting at the polling place, or remote Internet voting?

Moving beyond election monitoring itself, how do governments and NGOs ensure that the technological systems put in place are sustainable, reliable and cost-effective? That they are not all "flash," do not have short life cycles; and are not difficult to upgrade? That they do not create costly, long-term dependence on external suppliers? And, perhaps most importantly, how do they ensure technology is not an end in itself, but rather as a means toward the creation of a high-quality, cost-effective democratic service?

#### A. A PROPOSED SOLUTION

Throughout the world, most election solutions equipment and software is custom built, with minimal integration between existing applications. By developing proprietary standards, election vendors have traditionally limited the extensibility and scalability of their products. This

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<sup>21</sup> *Id.*

practice has effectively enabled vendors to dictate price and limit options for public and private institutional buyers. As a result, many government entities have found themselves locked into maintaining outdated election systems with minimal capabilities, and are too costly to upgrade or replace.

To make matters worse, there are currently a number of different election services vendors around the world, all integrating different levels of automation, operating on different platforms and employing different architectures. Consequently, developing democracies are not only deprived of the benefits of genuinely state-of-the-art technology, they are also often forced to choose between a sea of contending systems with no clear standard to evaluate competing products. For international organizations, the status quo is equally challenging. In the absence of clear technological standards, aid agencies and election experts run the risk of constantly having to reinvent the wheel each time a country elects to modernize its election system.

One initiative at the forefront addressing this situation is the recent formation of the new Election and Voter Services Committee within the Organization for the Advancement of Structured Information Standards (OASIS), the international XML interoperability consortium. The Election and Voter Services Committee is chaired by the UK Office of the e-Envoy and represents a cross section of NGO's such as IFES, and technology companies such as Microsoft, Accenture and *election.com*. The goal of its formation is to introduce a uniform way to allow election technology systems to interact with other systems as new processes evolve and are adopted.<sup>22</sup>

The new Committee aims to develop a new Election Markup Language (EML) for the structured interchange of data among hardware, software and service vendors that provide election systems and services. EML, the first XML specification of its kind, will provide a uniform, secure and verifiable way to allow ballot delivery and tabulation, election results reporting and demographics systems to interact as new global election processes evolve and are adopted.<sup>23</sup> Applications will range from voter

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<sup>22</sup> The OASIS Committee is open to all organizations and companies that subscribe to the belief that technological innovations in the election sphere ought to be open for general review, adaptation and implementation. OASIS offers an open, vendor-independent environment where both the providers and users of election services can work together on standardizing data interchange.

<sup>23</sup> XML encourages groups and industries to form common interchange standards using easy-to-understand tools. It is an emerging standard based on the more mature SGML that first gave rise to the widely used and understood Internet technology, HTML. Because XML is text based, it can be used by a vast number of devices and software components. Because it is flexible and allows for modifications to be made over time, it will empower the voting industry to evolve separately from the technology.

role/membership maintenance (new voter registration, membership and dues collection, change of address tracking, etc.), citizen/membership credentialing, redistricting, requests for absentee/expatriate ballots, election calendaring, logistics management (polling place management), election notification, ballot delivery and tabulation, election results reporting and demographics.

The EML initiative's intent is to allow for the development of a comprehensive election management solutions platform that will allow for complete interoperability among election software applications. The new EML platform will be integrated with online and offline operations and will support an international customer set. It will be Internet delivered to the maximum extent possible and will satisfy ten key requirements including: extensibility, reliability, security, privacy, interoperability, availability, scalability, transparency, serviceability, and multi-modal.

Instead of closed specifications, the emerging EML platform will offer an open framework architecture, in which interface standards will be published rather than covert. The introduction of open standards for election solutions is intended to enable election officials around the world to build upon existing infrastructure investments, to evolve their systems as new technologies emerge and to simplify the election process in a way never possible before. Equally important, open election standards aim to instill confidence in the democratic process among citizens and government leaders alike by establishing clear guidelines for the evaluation and assessment of election technology.

The new Election and Voter Services Technical Committee represents an important milestone in the development of secure, accessible and auditable standards for election technology we use in elections. If successful, the initiative will help to bolster the responsible application of technology to the democratic process and point the way toward a new international model for public/private sector cooperation in the technology sphere.

#### IV. CONCLUSION

Technology, deployed responsibly, has the capacity to enhance the overall efficiency of the electoral process, in the same way that it has enhanced the efficiency of other government functions such as taxes and license applications. To do so, however, the international election community must be able to build upon collective experience, to establish best practices and to institutionalize technological applications.

In order to provide the full benefits of e-Government to citizens around the world, government leaders, policy makers and the IT industry alike must all work together to forge strong public/private sector partnerships such as the OASIS initiative. Indeed, continued international cooperation and consultation will be critical if democratic imperatives are to drive the application of technology to the election process, rather than vice versa

If the history of the technological revolution tells us only one thing, it is technology companies do not wait for governments to legislate before moving forward into uncharted waters. In the absence of clear guidelines and standards, private industry can and will fill the void. The challenge for those committed to the promotion of free and fair elections, then, is to make the election arena an important exception to the rule.