Chapter XXV
Politically Oriented Database Applications

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INTRODUCTION: THE ROLE OF POLITICS

Technology pervades every aspect of modern life. It has an impact on the democratic life of a nation (Chen, Gibson, & Geiselhart, 2006) and is frequently an object of dispute and negotiation, affecting the way politics is done, by shaping new forms of planning and performing political actions.

The changing of professional politics is fuelled up by the increasing use of information and communication technologies by both citizens and organizations. Attempts to increase the use of technology to run elections (Hawthorn & Simons, 2006) are just one aspect of this movement. Many researchers also identify a steady pace of change on the nature of political parties and the ways politics is performed by politicians: Margetts (2001) notices the emergence of cyber parties, characterized by technologically-aided relation-ships between party and voters rather then formal membership. Pedersen and Saglie (2005) present a survey discussing how this and other kinds of party organizations (e.g. media and networked parties) affect traditional Scandinavian parties.

Information systems are themselves instruments of power in several ways. As an example, Hayes and Walsham (1999) discuss the political use of information stored in shared databases. Their study shows how databases storing contact and activity information were used by employees and managers to foster they careers, impose their views and control people subordinated to them.

Applications used in or related to politics are information intensive, making databases a prime element in building politically oriented applications. This article discusses some aspects of database related technology necessary for this kind of application.

BACKGROUND: POLITICALLY ORIENTED DATABASES

The politically oriented use of databases can be viewed under three main areas:

- **Research on politics.** Databases used for political science research contain data on a diverse range of social, economical and political aspects of countries and regions. They are called political databases.
- **Professional politics.** This area comprises the party databases, containing data necessary for running political parties, and the government databases, including the electoral databases as well as regulatory and other kind of databases used by parliament, congress, etc. From the government area, this article discusses the electoral databases containing data necessary to run and control elections.
- **Corporate politics.** This area comprises almost every information system, although very few of them explicitly incorporate political aspects in their design.

Political Databases

Political databases are used for political science research. Their structure and content vary depending on their sponsors and objectives but usually they contain a large volume of data about social, economical and political life of countries. They store data on diverse aspects such as elections, electoral rules, type of political system, party composition, and also on more subjective aspects such as military influence on government, stability of government and policies, and the extent of regulation, competition and openness of government actions.

There are a number of political databases regularly referenced by political scientists. The list below is partially drawn from Scartascini

and Oliveira (2003) (all indicated websites were visited in May 2008):

Cross National Time Series Data Archive is a comprehensive listing of facts for 256 countries, since 1815 (http://www.databanks.sitehosting.net).

Database of Political Institutions, sponsored by the World Bank, contains information about 177 countries, covering the period from 1975 to 2000 (described in Beck et al., 2001).

Democratic Audit of Australia since 2002 conducts audits to assess Australia's strengths and weaknesses as a democracy (http://democratic.audit.anu.edu.au).

International Institute for Democracy and Electoral Assistance has a website with information on voter turnout for national presidential and parliamentary elections since 1945 for several countries (http://www.idea.int).

Parline Database contains parliamentary information for over 140 countries (http://www.ipu.org).

Political Database of the Americas offers centralized and systematized information about institutions and political processes for 35 countries of America (http://pdba.georgetown.edu).

Political Risk Database provides data on economic indicators, risk ratings, geographic and political data, and social indicators (http://www.prsgroup.com).

Polity series of databases contains a large volume of information on political structures of countries. The Polity IV database contains information about 156 nations covering the period from 1800 to 2004 (http://www.cidcm.umd.edu/polity).

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