SAELE – OPEN ELECTIONS SYSTEM

Elections are routine activities in any education institute. Besides the rector's election/poll, there are elections for council representatives, unit directors, heads of departments, permanent commissions, syndicate associations, academic directories and centers, and so on.

SAELE grew and has been heavily used in the last seven years due to such needs. Its first use was in the election of the directing council of the Data Processing Center. Since then, there has been over 200 elections, 31 only in 2011, containing over 600 polls. From the 600,000 registered voters, 100,000 have deposited over 210,000 votes in SAELE's electronic ballots.

It's built entirely on a Web platform on the PHP language, originally on the Sybase DBMS, then migrated to MS SQL Server. The open version runs on PostgreSQL.

Owning to the diversity of elections the system tries to support, it has independence from the data structures of other institutional applications. The concerns with security and inviolability, as well as election integrity, is fundamental in such application. This is a permanent worry of the developer team, and it couldn't be otherwise. Cryptography and logging are employed to allow control and auditing.

SAELE can be used for managing elections and surveys. Elections can be divided in several distinct polls – for example, unit representations require several polls, one for each commission, within a single election. The system also allows ballot control: voting may be allowed to specific IP addresses (ballots), IP blocks, or without restrictions.

The ballot design was based on the Brazilian Electronic Ballot, allowing the use of the mouse as well as the keyboard, trying to diminish barriers for the different user groups. This is a great challenge: to minimize biases due to technical restraints, such as scrollbars, technical jargon, browser and computer compatibility and system performance.

One of the main goals of the system is to be ran in any machine, allowing impartiality and consistency in the process; that is, the voter should see the same interface in spite of his computer environment, without requiring higher technical skill. Besides, the system must be sufficiently generic and accessible so the elections may be managed by the election managers and commission, with full autonomy.

In these seven years, SAELE has been attending such portability and security demands, and this is reflected by the increasing number of usage requests. It is never a finished product, since there are constant upgrades and new added features, but it is sufficiently stable to give qualified support to this increasing need of the university community.