Strategies and Methodologies for the Planning, Design, and Implementation of Information Systems in Public Administration

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A prototype version of ECOKNOWMICS is being developed at the National Economic and Development Authority (NEDA) of the Philippines by an interdisciplinary software team consisting of economists, statisticians, system analysts, and computer programmers. Software development is expected to last for twelve months (about 5 person-years altogether), with the last three months scheduled for day-to-day validation by NEDA planners and policy researchers.

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Project URUCIB - Informatics for the Presidency of the Republic

Uruguay is a country of 2.9 million persons (half of them live in the capital Montevideo). The current President commissioned in 1985 a project to create a real-time information system to support decision-making at the Presidency and Cabinet levels. The project adopted Professor Stafford Beer’s well-known cybernetic approach to information, management and control in enterprises and government.

The project had four major aspects:

a) The data network - which involved ensuring data links with enterprises, departments and other sources using the telex network.

b) Information, quantified flowcharts, and "Viable System Models" - the domain of the organisation specialists.

c) "Cyber-filter" - a software package and database where the time series is monitored for any change-of-state.

d) The "Management Centre" - where the information can be viewed in more or less detail or printed out.

Professor Stafford Beer’s model of organisations (the Viable System Model) and also macroeconomic information are used in aspect (b).

The emphasis has been put on having few but representative indicators in "real time", which for our present system means knowing today what happened "yesterday". Separate quantified flowchart models were built for each enterprise.

The information that comes through the network is filtered, using the Linear Dynamic Model of Harrison and Stevens (fully described in the literature).

The major purpose of the "Cyber-filter" is to detect changes in the time series almost as soon as they occur (and not much later, as it is in the case of most national statistics indicators).

The information is then available to be displayed in a new environment designed for decision-making: the Management Centre, which is situated very close to the Office of the President.

The hardware for the project was bought on the market. It consists of 2 PC/ATs, a color printer, a display screen (100 cm x 140 cm) and a set of infrared numeric key pads for up to 5 users. The user-friendly software was written by the members of the project and design group of seven persons over the two years ending July 1988.