**Transnational Digital Government Research: Building Regional Partnerships**

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Governments increasingly find it essential to collaborate with each other in efforts to identify, monitor and solve regional and global problems. At the same time, this transnational government cooperation faces unique challenges that either are absent, or are not acute, in national government activities. Individual countries differ in their languages, laws, regulations, cultures, administrative structures, resources, geopolitical characteristics and stages of technological development – all of which impact interactions among government agencies. Information technology (IT) has an important role to play in fostering international collaboration through transnational digital government (TDG) by overcoming these differences and facilitating the collection, provision and exchange of information. To understand the unique IT research challenges of TDG, it is essential for academics to engage with agencies of different countries in the characterization, analysis and resolution of problems faced by concrete transnational government processes. The formation of sound government-academia partnerships is the first challenge of any research project on transnational digital government. This case-study presentation illustrates such a partnership in the context of a unique project whose goal is to conduct research on IT technology to facilitate transnational efforts to monitor illicit drug activities across the Americas.

The project pursues research on technology and tools for the collection, processing, exchange and integration of information needed by transnational digital government. Research challenges fall in the following areas:

- Spoken dialogue systems for data collection, training and learning;
- Data management and security techniques for rule-based data sharing and filtering;
- Machine translation technology for sharing documents across different languages and countries;
- Middleware for transnational (heterogeneous) information grids that enable private, secure and dependable automation of collaboration processes and policies, and the delivery of computing services through Internet portals; and
- Network behavior modeling and optimization for delivery of acceptable quality of service.

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The context of the research is the ongoing process of transnational counter-narcotics cooperation among all Western Hemisphere governments whose goal is to reduce illicit drug production, traffic and consumption. The process is coordinated by CICAD-- the Inter-American Drug Abuse Control Commission -- which is a technical body of the Organization of American States (OAS), and composed of 34 member states. A key component of this cooperative process is the Multilateral Evaluation Mechanism (MEM). Through the MEM process, OAS member states mutually evaluate their progress in dealing with all aspects of the drug problem. The MEM requires that countries collect, share and analyze extensive amounts of information in accordance with agreed-upon standard indicators presented in the form of a questionnaire. The expectation is that the evaluation process in and of itself will serve to spur countries to improve all aspects of their counter-drug performance either by their own means, or by technical assistance provided by OAS/CICAD. A complete response to this questionnaire on the part of OAS countries, and the success of the analysis of this data at the regional level, require data that is objective, up-to-date, comparable and exchangeable. National collection of some MEM-related data is assisted by CICAD-developed uniform data collection systems which include transnational instruments that facilitate the conduct of national epidemiological surveys and the gathering of traffic-related data and documentary materials. Currently, however, much data is not readily accessible because it is processed manually. One of the objectives of this project is to pilot-test in Belize and the Dominican Republic innovative information technology approaches to the deployment and use of these and other instruments and systems for data collection, retrieval, and analysis that could be applied throughout the hemisphere.

As a result of several consultative meetings in Belize, the Dominican Republic and the US, it was agreed that the pilot project would focus first on a specific MEM indicator that deals with identifying new global trends in the illicit movement of people, controlled substances, firearms and drugs across borders of Belize and the Dominican Republic. The project will focus on Information Technology research to facilitate the collection, dissemination, analysis and exchange of related information. Consideration is being given to the differences in language, infrastructure, and government bureaucracies, among others.

The government-academia international partnership involved in the project consists of a team of researchers from seven universities (Carnegie Mellon U., North Carolina State U., U. of Belize, U. of Colorado, U. of Florida, U. of Massachusetts and Pontificia Universidad Católica Madre y Maestra (PUCMM)) and experts from agencies in three different countries (US, Belize and the Dominican Republic). Under the umbrella of the OAS, several ministries and agencies in the three countries are involved. These include two OAS departments in Washington, D.C. (the Department of Technology and Facility Services and CICAD's Inter-American Observatory on Drugs); the National Drug Abuse Control Council of Belize's Ministry of Health; and the National Drug Council of the Dominican Republic. The university researchers include experts on speech-based interfaces, machine translation, databases, information retrieval, Internet-computing and networking.

The presentation will describe the research motivations of this project, the steps taken to identify and constitute the government-academia partnership, challenges faced by the project, and strategies used to succeed in a collaborative effort that involves seven universities, three countries and several government agencies.