PUBLIC - GOVERNMENT INTERACTIVE INFORMATION SYSTEM (PGIIS), MAKING IT USER FRIENDLY, SECURE, AND RELIABLE

A. EXECUTIVE SUMMARY

Governments at all levels are not only the largest gatherers of information, but also the largest analyzers and disseminators of information to the public. Given the present state of electronic communications, main problems of user friendliness, interactivity (to obtain user feedback), security, and reliability still remain in the public-government transactions. Often, while attempting to get information electronically from government databases, public reach a dead end without useful data. ***The main purpose of this proposal is to promote public access to the government information and the services and interact with the government, via a web-based system that is user friendly and interactive, secure and reliable. This system will be referred as the 'Public-Government Interactive Information System (PGIIS).***

We propose research collaboration among government agencies at the local, state, and federal levels, and cross-disciplinary academic researchers, in order to implement a functional prototype model of the **PGIIS**. In the **PGIIS** model development, networking and database resources available at the Florida International University (**FIU**), and the recent advances in the Internet 1&2, Multimedia Web Technology, Telecommunications, and Software Methodologies will be used [1][2][3]. In case, if the information the user queried is not available, Data Mining (**DM**) will be used by the PGIIS model to obtain and pass on the needed information to the user, in a transparent way. This will make the **PGIIS** model user friendly avoiding multiple searches by the user. Consistent with the directive of the Homeland Security [4][30] principles of Intrusion Detection (**ID**), Network Policing (**NP**), and Vulnerability Assessment (**VA**) will be incorporated to make the PGIIS model secure against intrusions, and threats. During the model development, the PGIIS servers will obtain the information from the original government servers, and provide it to the public interactively as proxy servers. Such a scheme will protect the original servers from getting overloaded and modified. The PGIIS servers offer redundancy to provide reliability. Data encryption and stegenography principles will be incorporated to make the PGIIS data transactions secure.

A big challenge in any project is the scalability of the model for testing and evaluation; and expandability of the model for practical use. The PGIIS model will be tested and evaluated against the requirements of the Florida Department of Transportation **(FLDOT),** and **the** Dade County Department of Public Health **(DPH).** The issues of Rural Public Health (**RPH**) pursued by the National Institute of Health **(NIH)** through FIU will also be used in the testing and evaluation of the model [5][6]. Incorporating the evaluation results and suggestions, the PGIIS model will be expanded to serve the other public-government interactions, in the social and environmental domains.

Another big challenge of Digital Government type of activity is to motivate the general public to electronically interact with the government databases, and provide feedback for further improvement. The research team will make the PGIIS model extremely user friendly and interactive, and highly visible to the public. It will be accessible via Internet, from anywhere and at any time. With the help of the Department of Public Health, special attention will be devoted to have the needy persons such as the elderly people and school children access and interact with the PGIIS model. During the first year, the team will concentrate on the design and development of the PGIIS model, for testing and evaluation. By the end of 3rd year, the PGIIS model will be made fully functional, and can be accessed through Web, with full interactive capabilities. The user can put a series of queries, and the PGIIS model will obtain proper information and deliver it to the user in a very user-friendly manner. All the developed software by the team, to integrate various PGIIS functions will be made available for free down loads (as plug ins) to the web browsers. ***The general public and other agencies that will access this PGIIS model will get the impression of actually interfacing with the respective government organizations.*** **This will manifest as a *Virtual Government Information Agency (VGIA) and will serve as NSF showcase [7].***

The cross-disciplinary research team's expertise will be drawn from a consortium of faculty associated with South Florida Academic Institutions: Florida International University **(FIU),** a Minority Institution **(MI)** with Research1 University status; Florida Memorial College **(FMC**), a member of the Historically Black Colleges and Universities **(HBCU)**; and University of Miami **(UM**) with established industrial and medical school contacts. ***Minority and women students will participate in this research project, thus contributing to intellectual capital among the minority communities.***