JANAVANI : A Model On-line e-Governance Initiative for Citizens' Interaction Management

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ABSTRACT

Information and communication technologies (ICT) are proven enablers of Good Governance or e-Governance. Any governance, to be really good and meaningful, must proactively provide for an efficient and user-friendly feedback or interactive mechanism from its intended beneficiaries or targeted populace. But this vital cog is found to be either missing or inadequately handled in the various domains of Governance and critical e-Governance projects. Moreover, there is a lack of a suitable common, integrated, standardized, technology driven and accessible framework to accept and efficiently redress (if required), the multifarious user interactions. Such interactions could be in the form of either public grievances, customer/consumer complaints, suggestions and feedback on various policies, projects or services etc. With the ever increasing role of Public-Private-Partnerships, the scope of governance must also include the private service providers. The JANAVANI project, being implemented in Orissa, is the outcome of such a perceived need.

Keywords: e-Governance, Grievance, Complaints, Feedback, Suggestion, Public-Private-Partnership, Service provider, Citizen interaction.

1. Introduction

The government plays an important role in the lives of citizens and businesses in India including the provision of licenses, permissions, funds/loans, subsidies, pensions, land/ property/birth/death registrations, and various public services including education, health, law and order, pubic utilities, and other infrastructure. On occasion, these do not proceed as intended, and citizens submit a "public grievance"– a complaint that their application/registration/case has not been dealt with for a long time without reason given, or has not been dealt with properly. The public grievance system, if it works well, is critical to the transparency and accountability of government, since it offers a key mechanism by which public servants can be held accountable for their actions or inactions.

With the launch of the major e-Governance initiative called, "National e-Governance Plan (NEGP)" by Govt. of India, there has been a perceptible change in the mindset of the government officials, citizens and the other stakeholders about the concept of Governance and the expected desirable ways of governing. There has been a proliferation of such initiatives at the national and state levels. Increasing thrust is being imparted on bridging the digital divide and ensuring interaction and participation of the public in various

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aspects of Governance. Considering the need of huge capital outlay, operational management and sustainability issues, concerted efforts are also being made to rope in the private in the form of Public-private partnerships. There is an ever increasing trend towards outsourcing of major chunk of governance by the private service providers. Service level agreements are being signed between the Government and the private in order to ensure satisfactory service delivery coupled with minimal complaints or grievances lodged by the target beneficiaries. Of late, there is a trend from e-Governance to e-Government and further towards e-democracy.

The e-democracy is an effort to change the role of citizen from passive information giving to active citizen involvement. In an e-democracy the Government will be informing the citizen, representing the citizen, encouraging the citizen to vote, consulting the citizen and engaging the citizen in the Governance. Taking the citizens input about the various government policies by organizing an e-debate will further strengthen the e-democracy. The concept of e-debate is similar to chat over the Internet, wherein not only the citizens but also the political leaders contesting the elections participate. The citizens give their feedback about the various policies of the parties and particularly the manifesto of the party. Market research programs should be carried out using the Information Systems to determine the needs of the citizens. In addition to G2C (Government to Citizen) type of e-Governance, C2G (Citizen to Government) type of e-Governance are increasingly becoming predominant. C2G mainly constitutes the areas where the citizen interacts with the Government. It includes areas like election when citizens vote for the Government; Census where he provides information about himself to the Government; taxation where he is paying taxes to the Government.

Viewed in this light, citizen feedback is a must for improving the Government services. Unless the Government listens to the people, it will not be able to find out what does the citizens want. Feedback is the process of gathering the inputs of all concerned. In e-Governance scenario it will be the perception of various stakeholders towards performance of project and achievement of various outcomes. The feedback process actually starts at the conceptualization of project or at the vision state itself. Initially, it will be comments / observations on documents / reports as prepared. At a later stage it will be actual experience on the e-governance application and at final stage it will be citizen satisfaction on the same. The feedback cycle once started has to be maintained throughout the project for success. The purpose of feedback is improvement. This whole process of improvement requires reviewing, communications, discussions, observations, brainstorming, listening, testing and more.

The Government Service Delivery paradigm is currently facing tough challenges. On one hand there is a challenge of regulatory compliance and cost cutting on other there is a challenge of service improvement. Governments are now improving the service delivered to the citizen on dimensions such as speed, quality, reliability, convenience and cost. With e-Governance, the service delivery paradigm in Government is fast changing. The following table compares the past and present paradigms

Past	Present
Departmental Centric Approach	Citizen Centric Approach
Process Orientation	Service Orientation
Output based Assessment	Outcome based Assessment
Departmental View	Integrated View
Traditional Governance	Public Private Partnership
Government +Citizens	Stake Holders including Business

In this scenario, there is an emerging societal need in the form of a suitable framework for taking care of the various types of interactions desired to be done by all the targeted populace. The different types of interactions include complaints, grievance, suggestions, feedbacks etc. The targeted populace could vary

from a specific community, public in general, customers, clients, project beneficiaries etc. It is felt that such a framework should be network-centric to integrate all the stakeholders in a single accessible network such as INTERNET; unified in the shape of a common portal; standardized for ensuring uniform access/ data storage/ sharing & interoperability; accessible through various devices such as computer, phone, physical access etc. & 24*7 on-line service; user friendly with adoption of multilingual technology, UNICODE & intuitive user interfaces; and above all backed and supported by both the existing political set-up and the administration.

2. Emerging Voice Technologies – A Study

Providing customer self-service through the Web provides a partial solution, but this approach does not accommodate customers for whom network access is inconvenient or impractical. Interactive voice response (IVR) products have been available for many years to automate call processing, but until recently they were based exclusively on dual tone multi frequency (DTMF), or touch tones. Applications built on these platforms provided a good return on investment (ROI), but often frustrated callers with lengthy menus and arcane command sequences.

Past-generation IVR platforms were based on proprietary application development environments and hardware platforms — limiting their integration flexibility and locking in the IVR vendor. Solutions that deliver the benefits of speech recognition and TTS in an open, standards-based environment offer the potential to increase flexibility and simplify deployment and integration tasks.

Today's IVR products support sophisticated applications that can interact with callers in a simple way using natural speech. By incorporating TTS and speech recognition technologies, these IVR platforms continue to deliver a good ROI while raising the level of caller satisfaction. Greater automation rates can also improve savings, while broad call handling capacity reduces hold queue times for better service. Relieved of tedious and repetitive requests, contact center agents can function more efficiently, free to devote their time to higher-value tasks.

In recent years a set of standards has emerged for IVR and speech environments that address the use and reuse of "IVR" and "speech services" in a web infrastructure. In particular, Voice XML, which addresses the markup or "presentation" of how a voice-browser (modeled on a Web Browser) should interact with an end user, Speech Recognition Grammar Specification (SRGS), which defines the natural language formats that speech resources need to deal with, and Java Servlet / JSP/ ASP technologies, which provides a natural management and development bridge from Web Applications, have standardized the core technology in what is often called a "voice portal" ecosystem. Many customers have settled on the "voice portal" ecosystem as the mechanism for developing self-service applications which integrate with their existing IT infrastructure.

Voice portals are expected to bring the following advantages:
- Consistently managed and administered application environments
- Common skill sets and tools for developing and maintaining applications
- Less expensive application environments as "vendor lock" is removed
- Common business logic and integration environments
- Greater application sophistication as enterprise business applications become integrated more directly into the self-service environment

3. JANAVANI System

The objective of the JANAVANI system is to provide a one-stop online web portal to handle all kinds of user interactions such as complaints, grievances, suggestions, feedbacks etc. relating to various governance/

e-governance activities undertaken by all the service providers, i.e Government and private.

The functional requirements worked out are given as follows;

- Interaction filing
- Interaction processing
- Communicating status to citizen
- Interaction monitoring & analysis

The supporting design requirements are;

- Codification of schemes, services, projects, policy etc.
- Coding of functionalities of processes
- Functionality definition
- Individual process definitions
- Responsibility matrix
- Codification of Locations & relationships
- Codification of departments/organizations/offices & relationships
- Coding of interaction types
- Coding of interactions
- Interaction content type coding
- Interaction & content type relationship
- Interaction content details

Operational and Management Strategy

The hub of the JANAVANI system is the JANAVANI portal, hosted on the INTERNET. This portal facilitates different types of citizen interactions concerning the entire gamut of state-wide governance. These interactions are concerned with the various e-governance projects (implemented/under implementation), traditional (manual) governance activities, citizen centric surveys, citizen-centric services provided by private etc. There would be a dedicated JANAVANI management set-up at the apex level to chalk out the required operational policy, implementation & management plan including change management plan. This apex committee would have to be steered by a administrative champion.
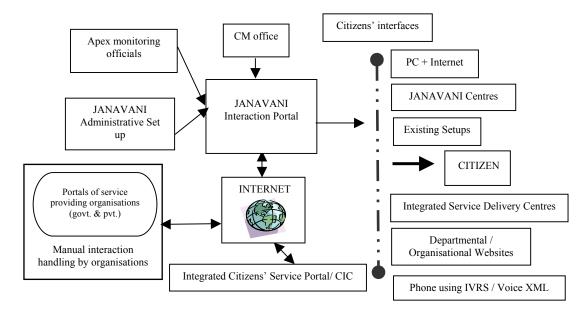
Architecture

Figure 1: Architecture of JANAVANI Portal
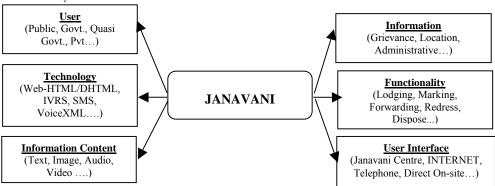
The JANAVANI System

Figure 2: JANAVANI System

Dedicated JANAVANI or Community Information Service Centre (CICs) co-located centres, would be created at various geographically dispersed locations of the state. Creation and management of such centres would be done on the PPP basis with assistance from government. Citizens would use these centres for the registration or filing of those interactions which require verification and submission of physical documents or proofs. The necessary security, encryption and authentication would be ensured for the creation, storage and transmission of digital copy of interactions and supporting documents. These centres would provide the services by linking to the JANAVANI portal through INTERNET. The interaction processing activities would be handled by the respective project officials earmarked for this purpose. The registration of the participating departments/organizations/offices and the earmarked officials precedes the interaction processing activities. JANAVANI allows for a project centric customization of interaction handling process. The prevailing status of the various citizen filed interactions along with the facility for further interactions would be made available online round the clock through the JANAVANI web portal. In those cases, where the complete interaction process or a part is done manually, provision would be there to bring about their seamless integration with JANAVANI.

Monitoring of the interactions associated with various projects would be handled by the concerned project head. Overall monitoring would be done by the Chief Minster and his office. The deserving and long-pending public grievances and unsatisfactory attendance/ compliance by the various departments would be personally reviewed by the Chief Minister on a pre-assigned day. The State Wide Area Network (SWAN), GRAMSAT along with the Video Conferencing (VC) setup of National Informatics Centre (NIC), would be made use for this purpose.

JANAVANI Features
- It is a one stop web enabled portal supporting G2C, G2G, B2C, C2G type of e-Governance.
- Systematic method to register the interactions and track the progress.
- Efficient on-line interaction process management
- Interaction types, locations, administrative units are structured for integrated data handling.
- Data standardization, fixation of roles & responsibilities, administrative hierarchy and detailed process definition enable better interaction analysis and management.
- It provides interfaces covering Internet, Phone, JANAVANI centre, departmental project interaction mechanism and walk-in with Paper-Form at existing interaction sites.

- Rich reporting capability to help the monitoring authority & CM for ensuring satisfactory compliance.
- Advance features such as auto-routing that enables interactions to be routed to the appropriate higher level officers and prioritization, SMS alerts and auto escalation.

Application Flexibility, Standardization & Interoperability
- Application Flexibilities: Flexibility for including both government & private organizations, multiple interaction type, geographic locations within the state, differing interaction process, multiple user access interface.
- Standardization: Standardization & Simplification of location code of the entire state, administrative hierarchy.
- Interoperability: Location inter-operability through unified location code, Application level interoperability & data synchronization through web services choreography.

4. Implementation: Issues & Status

The JANAVANI project is being implemented in a phased manner in the state of Orissa. In the initial version, the interaction type covers only the public grievance which is of paramount importance for the state administration. The project is already operational in the districts of Khurda and Kalahandi spanning the district head quarters and the blocks. The application is presently operational through the corresponding district web sites. Domain name for the state portal has already been registered as janavani.gov.in. Enhancement of the application and the rollout in all the districts of the state is under progress.

Figure 3: JANAVANI Application Home Page Ver 1.0

Relevant Issues in JANAVANI Implementation
Learning from our experience so far, some of the pertinent issues for successful implementation of JANAVANI are listed as follows;
- Political will and need of a administrative champion: In Orissa, this has been one of the most important bottleneck for most of the e-Governance initiatives
- Sense of ownership by Government: Ownership is found to rest with the consultants or lower administrative authorities by default
- Constraint of funds: Lack of funds with the state govt. and inability to obtain from centre
- Lack of skilled and capable private organizations for supporting e-governance initiatives
- Illiteracy, poverty, and digital divide: Less than 1% of total population are computer literate

- Process re-engineering and change management: Mostly ignored due to lack of knowledge, difficulty in undertaking administrative reforms and legal issues

e-Governance Parameters

Service Orientation
- Efficiency (Speed of delivery, Compliance to committed service time, Quality & Simplicity of User Interface)
- User-convenience (Ease of access, 24*7 availability, Single window access to several interactions)
- Citizen-centricity (Aligned for Citizens' requirement, Grouping based on user need, Local language interface, Reduction of visits to Govt. offices)

Technology
- Architecture (Comprehensive, Conformance to National/ International Architecture, Provision for inter-operability)
- Standards Conformance (Planned compliance to open standards, Metadata standards)
- Security (Compliance to security architecture)
- Scalability (Permits scalability, Scope for enhanced hardware)
- Reliability (High availability, Accuracy, Consistency of Response times, Availability of alternate service delivery channel in case of system break down)

Sustainability
- Organizational (Planned Organisational structure for managing the project)
- Commercial (Amenability of service delivery through PPP mode, Collection of user charges)

Cost Effectiveness (Reduction of Direct & Indirect Cost to the User)

Replicability
- Functional (Generic processes, Product Orientation)
- Technological (Multiple platform feasibility, Ease of Installation, Extent of parameterization for customization)

5. Concluding Remarks

The concept of providing an integrated citizens' interaction management portal in the form of JANAVANI is a novel idea. But novelty is always associated with potential hurdles and risk of failure. But considering the keen interest and support provided by the state administration and rich experience of the project team, the project is likely to blossom to its fullest extent.

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