Voice2Action: A Civic Task Routing & Micro Employment Platform for Local Problem Resolution

B. Gnanasankari

MTech CSE

Vellore Institute of Technology, Chennai

ABSTRACT: India's path to self-reliance must align with inclusion, participation, and employment generation. Many government schemes exist yet a large section of citizens especially at the grassroots level still struggle to raise their voices. They struggle to resolve their everyday civic problems due to lack of awareness, communication gaps, and administrative barriers. To bridge this gap, we propose *Voice2Action*, a citizen driven mobile application designed to strengthen the communities by transforming local issues into structured and trackable tasks. With the help of this platform, every citizen can log in and upload problems they face in daily life from infrastructure repairs to social welfare concerns. Once submitted, these issues are automatically mapped to the respective local representatives such as the MLA, Councillor, or MP. Apart from complaint registration, the system also integrates employment by creating tasks developing from the reported problems that are opened for eligible citizens to apply, allowing the government to directly pay workers digitally for their services. Local representatives act as supervisors, linking citizens, problem solvers, and authorities in a single system. Voice2Action increases the citizen participation and employment opportunities. Self-reliance became a globally shared goal that helps the communities to grow much closer to full employment.

Keywords: Citizen Engagement, E-Governance, Local Governance, Employment Generation, Digital Platform, Community Empowerment, Transparency, Accountability, Voice2Action, Self-Reliance

INTRODUCTION:

India is moving towards the age of opportunity with confidence. India's vision of "Atmanirbhar Bharat" (self-reliant India) can be achieved with the help of growing young population and rapid digital progress. But the issue of unemployment and the absence of strong citizen participation in governance are still an issue which is stopping us. According to the Periodic Labour Force Survey, during June 2025 India's unemployment rate was 5.6% (Forbes India), but Tamil Nadu showed 4.3% unemployment rate at that time which was relatively lower. These reports shows that there is a need to call for immediate and effective solutions.

Self-reliance is not all about industries and economic growth but it is also about the people who all are having the power and opportunity to take part in their community development. People always feel governance is not their cup of tea. Because even the small problems that need high attention like potholes, garbage, power cuts, or delayed welfare services are neither reported nor resolved. The complicated procedures and the weak systems in the governance are also contribute to this lack of interest. The irony is people who face these problems daily are never taken any steps to solve them.

There is lot of unemployed people in India and they all are wiling to work. Everyone wants opportunities and jobs irrespective of their skills because it give them self respect and income. This creates a paradox, on one hand, problems exist everywhere and on the other hand, people who can solve them remain unemployed. The solution to this paradox is **Voice2Action** which creates a system where civic issues can be turned into jobs. It turns the governance platforms as a platform that connect citizens and jobs which bring accountability.

Digital governance sites like UMANG and CPGRAMS are exists but they face difficulties such as low awareness, slow responses and difficult user interfaces. A study on mobile governance in India says that even the mostly used apps like UMANG, Digilocker, and mAadhaar still face issues with accessibility, trust and user experience (Singh, 2025). To attain a fully inclusive governance, platforms must be simple, multilingual and designed with compassion and ease of access for all citizens.

Research shows that it would be wise if issues were reported using smart technologies. For example image recognition and geotagging are combined to record and detect the civic problems (Walwadkar et al., 2022). Similarly, in smart city applications a deep learning techniques are used to classify the complaints. It will help municipal bodies to work more transparently and effectively

(Shama et al., 2024). These studies shows that with the help of technologies, governance can be more responsive and efficient.

Voice2Action not only reports but also converts every logged issue into small tasks. If a streetlight needs repair or a drain is blocked, these small tasks are opened to local citizens. They can apply to do that work. Once the work gets completed they will get paid digitally. By doing so, every problem not only gets solved but also becomes an opportunity for employment.

There is a high potential for growing gig economies in India. NITI Aayog's 2022 report shows that gig work has become a strong source of jobs, especially in urban areas. Voice2Action help to apply this concept at the root level in order to bring more gig style opportunities into governance.

Voice2Action model assign a local representatives like MLAs, councillors, or panchayat leaders as a supervisors to the tasks. The supervisors checks and confirm the complaints registered and approve the tasks. They also do a regular follow up with the tasks until it gets completed. This strengthens the bond between citizens and their elected leaders. By doing so they will become a everyday problem solvers rather than just a figures who appear only during elections.

Voice2Action uses tools such as geotagging, uploading the images, real time tracking of the progress and secure payments. These features in Voice2Action make the entire process starts from reporting till completion more transparent. Researchers found that this integrated "citizen centric" approach is essential to build trust among citizens in the e-governance (Malodia, 2021).

Citizens can comment on the issues that is posted in this app. Based on the comment, we can able to classify which problems need urgent attention. Bultoo Radio platforms have already proved how even a simple voice based systems can bring huge changes in the community (Choudhary, 2020). Similarly, Mobile Vaani has empowered the rural communities to raise their voice against the local issues using basic voice and SMS platforms (Moitra et al., 2021). Voice2Action builds on these participatory ideas and it merges with the government workflows in order to add payment and brings accountability.

Voice2Action brings huge benefits to the society by all means. Economically, it creates more job opportunities at the local grass root level especially for women and youth. Socially, it makes the citizens as active participants rather than passive recipients by changing their mindset. Politically, it increases the trust of leaders among the citizens as problem solvers. Culturally, it promotes pride and ownership among communities and makes towns and villages stronger ones.

India 2.0 innovation and inclusion goes together. Voice2Action helps to attain that. Innovation is not only about advanced technology but also about designing practical and human centered solutions. Every citizen regardless of background has the chance to contribute and get benefits from this model. This concept is called inclusion. This redefines the concept of self-reliance as collective empowerment not as independence.

Voice2Action bridges the gap between citizen needs and government responses. It provides the solution to India's unemployment rate and grievance system, by creating a platform that combines reporting, accountability, and employment. Voice2Action shows a new way of doing governance.

Voice2Action acts as a blueprint for governance as participatory and transparent. Voice2Action is a vision where problems turn into opportunities for citizens where India is moving towards full employment and complete inclusion and independence.

LITERATURE REVIEW:

Singh (2025) did a research on India's leading mobile governance platforms such as UMANG, Digilocker, and mAadhaar and he found out that these platforms serve millions of citizens but still it face many issues such as access speed, trust and accessibility. He mentioned that these platforms captured the actual user sentiments towards the government which is the major strength of these platforms. However, these platforms did not go beyond service delivery. It fails to explore how these apps could directly create employment. It did not hold the leaders accountable. Voice2Action further extends the scope of these platforms. It enables complaint logging system and it also creates an employment by assigning these small tasks to the local workers. It bridges the gap between the governance and employment generation.

Walwadkar et al. (2022) designed a smart civic issue reporting system. It detects and reports the urban problems using artificial intelligence and by geotagging. This system helps to identify the civic challenges more accurately. It detects the problems but it fails to create to create an employment opportunity. Voice2Action addresses this gap. It integrated reporting with problem solving and it links local small tasks with the eligible citizens. It ensures accountability among the leaders and the citizens in the completion

of the task.

Shama et al. (2024) suggested a model for organising the citizen complaints in the smart cities using deep learning technique. Municipalities can able to work more efficiently using the system suggested by the author because it groups the complaints into various categories. The advanced use of deep learning proved that how technology can benefit the governance. However the existing system focuses only on the classification and it fails to provide any solution for citizen feedback and job opportunities. Voice2Action provides a feedback loop and task assignment. It turns the citizen complaints into a tool for governance improvements and livelihood opportunities.

The NITI Aayog report (2022) on India's platform and gig economy highlighted that how gig work is generating employment opportunities especially in urban areas. This report discussed about the policy insights in order to improve the employment opportunities. It also discussed about the rise of flexible work models. But it neither connect the gig economy with local governance nor with civic problems. Voice2Action combines these two by applying gig style models. It links the grassroots level governance issues with the employment while enhancing the accountability.

Malodia(2021) emphasized the importance of citizen centric frameworks in e-governance. He highlighted that governance should focus on gaining trust among citizens with ease of accessibility. The paper presented a strong theoretical foundation for understanding what citizens can expect from digital governance systems. However that model fails to provide a real world mechanisms for linking governance with job creation. Voice2Action bring these ideas into governance workflows by making inclusion not just a principle but a tangible outcome.

Choudhary (2020) introduced Bultoo Radio using which citizens can report issues through voice or SMS even without the internet. This voice based platform increased the community participation. This system included the rural populations with low literacy. Yet it was not integrated with formal government and it did not offer any solution for compensating citizens by resolving the issues. Voice2Action supports reporting the issues and integration with the governance structures. It also ensures payment after the completion of the tasks.

Moitra et al. (2021) analysed Mobile Vaani, a voice based media platform. It enabled the marginalized community citizens to raise their voices against the issues. This initiative successfully increased the rural participation and highlighted their issues and their concerns. However the model lacks in a mechanism for assigning and resolving the tasks. Voice2Action takes this participatory approach further by converting the raised issues into small civic tasks which in turn created micro employment opportunities.

The Confederation of Indian Industry (CII) report (2025) on Employment Initiatives for India@100 mentioned about some strategies for a long term job creation by the end of 2030. In national level policy and planning, they focused on the industry driven jobs and did not think about the direct citizen participation in governance. Voice2Action supports such macro economic strategies by providing a micro level solutions. That is an ordinary citizens can directly participate in solving governance issues and can also earn money.

And lastly, the Press Information Bureau (PIB, 2024) released the KLEMS database. It talks about the sector wise data on employment growth and productivity across India. This dataset helps to understand the workforce pattern in much better way. However it presented pure data without connecting it to problem. It ensures there is proper reporting, accountability and civic participation across India. Voice2Action uses such data as a reference and it differentiates itself by linking governance and employment opportunities at the local grass root level.

METHODOLOGY:

The methodology for developing Voice2Action focuses on building a digital platform which is people centric, transparent and scalable. It connects citizens, local representatives, and job seekers. The development steps is divided into three main stages: System Design, Implementation Strategy, and Validation & Testing.

A. System Design

The main logic of Voice2Action is to convert every small issue reported by the citizen into a micro employment opportunities. Voice2Action has all features from the existing e-governance apps like UMANG and CPGRAMS and it also aims to overcome their challenges such as low awareness, slow response and poor usability *(Singh, 2025)*.

The workflow of Voice2Action as follows :

1. Problems faced by the citizens in their day to day life such as broken streetlights, blocked drains and so on can be reported and addressed via Voice2Action. This mobile interface contains the options to raise complaints using text, images and voice inputs. This is inspired from the Bultoo Radio and Mobile Vaani. These apps enabled the citizens to report issues through SMS or by using their voices. Using these platforms even the people with low literacy rate can also raise their voices against the pressing issues. *(Choudhary, 2020; Moitra et al., 2021)*.

2. Issues are allowed to the corresponding local authority such as MLA, Councillor, Panchayat leader using geotagging *(Walwadkar et al., 2022)*. These people representatives act as a supervisors who ensure the accountability and transparency of the process.

3. Each problem is converted into a small micro tasks. Local workers can apply to resolve these problems. This follows the gig economy model which is highlighted by the NITI Aayog in its report on 2022.

4. Once assigned workers must complete the tasks and they should upload the proof such as photos and videos as status updates. Everyone can see their progress and outcomes. This is similar to the transparent frameworks suggested by *Malodia in 2021*.

5. Once the work gets done the supervisor will check the outcome and give their approval. After they approved workers will receive their payments via digital means. It ensures fairness and transparency.

This system transforms the problems into an employment opportunities which in turn increases the civic participation in governance. The below figure 1 represents the workflow of Voice2Action.
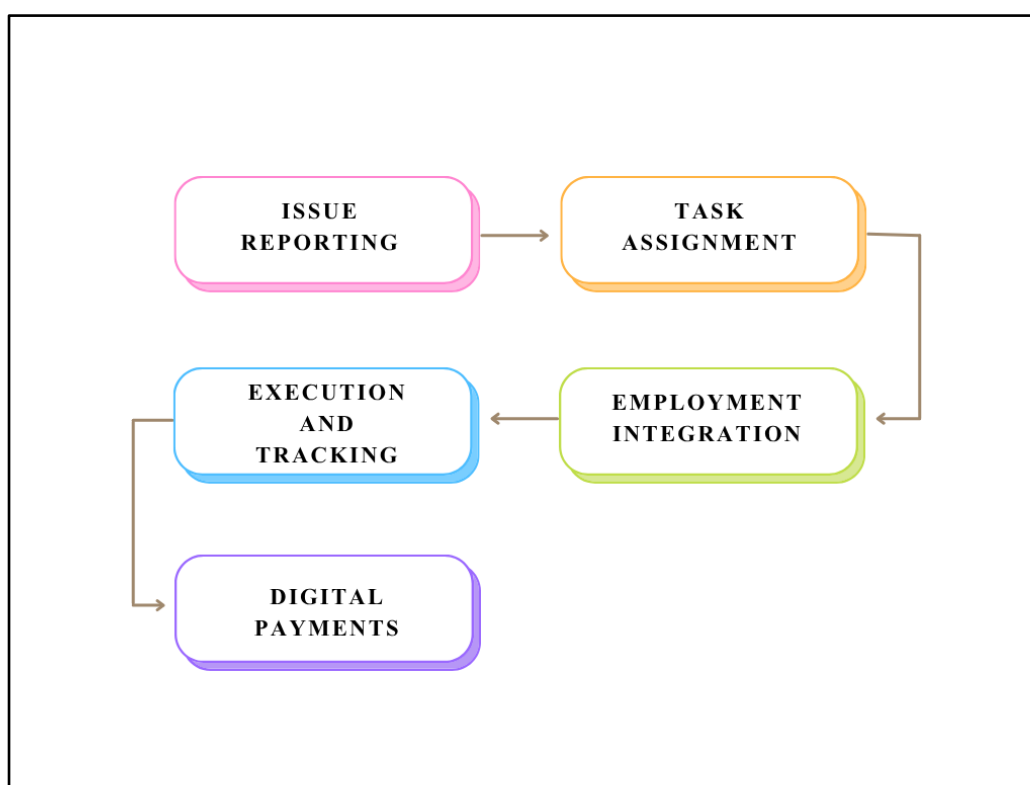

Figure 1: Flowchart representing the workflow of Voice2Action

B. Implementation Strategy

Mobile phone usage is very high in India, even the rural region people have a knowledge about how to use it. So the implementation of Voice2Action has to be done at the mobile phone at first in order to make the huge impact. Voice2Action supports multilingual text and it is voice assisted in order to maximize the accessibility among the citizens as stated by *Choudhary, 2020 and Moitra et al., 2021*.

Key technical features in the Voice2Action includes :

- Geotagging and Image Uploads for accurate issue mapping *(Walwadkar et al., 2022)*.
- Faster routing is ensured by AI Based Categorization of complaints, inspired by *(Shama et al., 2024)*.
- The issues are converted into small tasks so that local citizens can apply for those open jobs. It will make a huge impact on the gig economy practices *(NITI Aayog, 2022)*.
- Supervisor Dashboard for MLAs and officials to monitor, approve, and close issues in real time.
- Payment Gateway Integration for secure direct bank transfers to workers.

This kind of design ensures simplicity and also maintains the scalability. This will play a huge role in urban and rural development.

C. Validation and Testing

Following methods will be adopted in order to evaluate the Voice2Action :

1. Pilot Testing: To check the user friendliness and adoption rate, A small scale testing is conducted in selected urban and rural areas. This will confirm whether the application is user friendly or not. It will help us to understand the adoption rate of this application among the citizens.
2. User Feedback: Collect feedback from citizens, workers and representatives. It is important to understand the flaws and change the interface and workflows accordingly. Addressing those issues reported in earlier platforms will result in huge penetration of this application *(Singh, 2025)*.
3. Efficiency: Issue resolution time is reduced compared to existing applications such as CPGRAMS and UMANG.
4. Employment Rate: To record and track how many micro tasks were created. How much micro tasks were actually converted into jobs and how much income was generated locally. In the national reports, this will reflect the employment focus rate of India among the rural regions *(CII, 2025; PIB, 2024)*.
5. Transparency: To monitor and track the public visibility of the tasks and accountability of the supervisors. This kind of transparency is very much important in order to have a successful governance model as suggested by citizen centric governance frameworks *(Malodia, 2021)*.

This kind of iterative and unit testing ensures that this platform is not only technically good but also scalable and acceptable by everyone.

DISCUSSION:

Voice2Action introduces an important framework shift in the governance. It shows that governance, employment and technology can go hand in hand. Existing grievance platforms such as CPGRAMS or UMANG primarily focuses on complaint registration and escalation. But Voice2Action creates a platform where issues raised by citizens are not only recorded but transformed into employment opportunities. This dual role of solving civic problems while generating local livelihoods makes Voice2Action a unique one.

One of the most significant contributions of Voice2Action is the integration of gig economy with the governance. Reports states that the gig work has been a powerful tool for employment (NITI Aayog, 2022). But rarely it has been applied to solve the community level challenges. By converting tasks such as repairing a streetlight or cleaning a drainage system into a small micro jobs, Voice2Action bridges the paradox of "abundant problems but unemployed workers". This transforms governance into more people centric and opportunity driven one.

Another main advantage in Voice2Action is the trust it builds among the citizens. As Malodia (2021) points out, accessibility and transparency in the platform brings trust in governance among the citizens. In Voice2Action accountability is ensured through geotagged tasks. A local representatives approve each and every tasks which results in real time progress tracking. These features improve task solving rates. It also increases the public confidence about this platform. By acting as a supervisors elected leaders can make a difference in their localities. In traditional systems, citizens often feel disconnected from the leaders but now local representatives actively participate as supervisors. This strengthens the bond between citizen and the elected leaders starts from the grassroots level.

Voice2Action supports multiple languages and provides voice assistance as well. Existing apps such as Bultoo Radio

(Choudhary, 2020) and Mobile Vaani (Moitra et al., 2021) has showed how even the low literacy populations can effectively use voice assistance and SMS systems to raise concerns. Voice2Action also adapts these models. Voice2Action not only integrates them directly into government workflows and it also enables the digital payment systems. This makes the model both culturally and economically strong.

Still there are some challenges exist. The success of the system depends on the availability of the factors such as government adoption, scalability and digital infrastructure. The ease of access can be validated by the pilot testing. To evaluate the long term usage benefits, it requires supports from both the people and the governance. In order to ensure the fair wages for workers, the digital payment structure must be regulated. These limitations shows the need for continuous changes in the policy to strengthen the model.

To sum up, Voice2Action demonstrates that technology driven governance does not have to be limited to the complaint management systems. Instead it can evolve into a socio economic platform where civic participation and employment opportunities can go hand in hand. By making governance aligning with livelihood creation, the model moves towards the vision of "Atmanirbhar Bharat" where self-reliance is achieved not only through industrial progress but also through community empowerment and grassroots innovation.

CONCLUSION:

Voice2Action redefines governance as a participatory and employment driven process. Earlier it is just a complaint based system. Voice2Action ensures transparency by integrating geotagging and AI based categorization model along with the advanced direct digital payment methods. It creates micro jobs from everyday civic problems. The model transforms citizens from passive complainants into active contributors. This reinforces the vision of Atmanirbhar Bharat through collective empowerment.

Future extensions include large scale of testing with government collaboration. Forecasting local issues with the help of predictive analysis can be integrated with the Voice2Action in future. Blockchain based audit trails can be added for security. As a scalable framework Voice2Action become a blueprint for community centric digital governance. Every issue reported and resolved in Voice2Action leads to employment generation and the community development.

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