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JAN SEVA: CONNECTING PEOPLE FOR A CHANGE

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Abstract

The development of a common web portal for Non-Governmental Organizations (NGOs) addresses the critical need for a unified platform that enhances accessibility, coordination, and visibility of social services. NGOs play a vital role in tackling various socio-economic challenges, yet the absence of a centralized digital space often limits their outreach and impact. This paper explores the creation of an integrated web portal designed to serve as a central hub for NGOs, allowing them to present their missions, services, and ongoing projects in one accessible platform. By facilitating easy access to information for individuals seeking assistance, donors, and volunteers, the portal fosters greater engagement and collaboration across the sector. It also enables NGOs to share resources, streamline communication, and monitor progress in real-time. With features such as donation tracking, volunteer management, and a transparent reporting system, this portal aims to build trust and increase the effectiveness of social interventions. Ultimately, the proposed common web portal enhances the operational efficiency of NGOs while simplifying the process for beneficiaries and contributors, leading to a more coordinated and impactful social support system.

Keywords: *Centralized Portal, Social Welfare, NGO Networking, Resource Sharing.*

Introduction

Non-Governmental Organizations are an integral part of the society. It plays a crucial role in various social, environmental & humanitarian issues around the world & nation. NGOs or Non-Governmental Organization operate independently of government control. These are private, non-profit & voluntary organizations. These are formed by group of people or individuals who share a common goal or interests. They work for social, environmental, & humanitarian causes & operate at local, national & international levels. (Parhad, Pusadkar, Patil, Shinde, & Nalge, 2024)

The centralization of various Non-Governmental Organizations (NGOs) on a single platform aims to create a unified digital hub that streamlines operations, enhances collaboration, and increases accessibility for both organizations and beneficiaries. Currently, NGOs often operate independently, leading to challenges in outreach, resource management, and coordination. A centralized platform addresses these issues by bringing diverse organizations under one roof, allowing them to share resources, collaborate on common goals, and amplify their impact. (Parhad, Pusadkar, Patil, Shinde, & Nalge, 2024)

For users, such a platform simplifies the process of finding relevant services, volunteering opportunities, and donation options by providing a single access point to multiple NGOs working in different sectors, from healthcare and education to environmental conservation and human rights. It enhances transparency by offering a clear overview of ongoing projects, fund allocation, and impact reports, fostering trust among donors and stakeholders.

For NGOs, centralization facilitates better networking, resource-sharing, and collaborative efforts to tackle complex issues that require multi-disciplinary approaches. It also helps smaller or lesser-known organizations gain visibility, increasing their chances of receiving support. In essence, the centralization of NGOs on a unified platform transforms the way they operate, improving efficiency and creating a more connected and effective network of social support.

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Background

Non-Governmental Organizations (NGOs) have long been essential in addressing societal challenges, including poverty, education, healthcare, environmental conservation, and human rights. These organizations often serve as vital connectors between communities in need and the resources or services required to improve their lives. Despite the crucial role they play, many NGOs face common obstacles, such as limited visibility, fragmented resources, and difficulties in reaching the right audiences. The lack of a unified digital space where these organizations can effectively present their work and collaborate with one another has been a recurring challenge. (Parhad, Pusadkar, Patil, Shinde, & Nalge, 2024) This disconnect not only limits the operational efficiency of individual NGOs but also reduces their collective ability to respond to larger, more complex social issues.

The development of a common web portal for NGOs is grounded in several key theoretical frameworks that guide the design, architecture, and operation of the platform.

- **User Centred Design (UCD)**

User Centred Design is a framework that focuses on creating systems that meet the needs and preferences of the end users. In the case of the NGO web portal, this includes NGOs, volunteers, donors, and beneficiaries. The User Centred Design approach ensures that the platform is easy to navigate, provides intuitive interfaces, and delivers the necessary information with minimal friction. It involves iterative prototyping, user feedback, and usability testing to improve the user experience continuously.

- **Agile Development Methodology**

Agile development methodology, which emphasizes iterative development, continuous integration, and rapid feedback, is ideal for the dynamic nature of a web portal. Using Agile, development teams can quickly adapt to user needs, fix bugs, and release new features in short sprints. This ensures the platform remains responsive to user demands and emerging technologies.

- **Open Source Philosophy**

The open source philosophy encourages collaboration and transparency, two values that align closely with the mission of many NGOs. By using open source tools and frameworks, the development process becomes more cost-effective, and the codebase remains accessible for future improvements and contributions from the global developer community. This also allows NGOs to modify and customize the platform according to their unique needs.

- **Network Theory and Collaboration**

Network theory provides insights into how decentralized systems (such as NGOs) can become more effective through digital connectivity. A common portal enhances collaboration by enabling information sharing, reducing redundancy, and promoting coordination between NGOs. The theory suggests that as connections within a network increase, so does the overall value and efficiency of the system.

- **Data-driven Decision Making**

The theory of data-driven decision-making is pivotal for the operational success of the platform. By collecting and analysing data from user interactions, donation trends, and service requests, NGOs can optimize their strategies, target resources more effectively, and measure the impact of their initiatives. Data analytics tools integrated into the platform can provide insights that help NGOs make informed decisions, improving overall program effectiveness.

Literature Review

The concept of developing a common web portal for Non-Governmental Organizations (NGOs) has garnered increasing attention in academic and professional discussions. The primary goals of such platforms are to enhance collaboration, streamline operations, and improve accessibility for stakeholders. This explores existing research on the benefits, challenges, and potential impacts of developing a unified digital platform for NGOs. (Pardeshi, Shigwan, Kulkarni, & Bhogade, 2015)

Many individuals in need of services are unaware of the NGOs operating in their area or the specific services they offer. A centralized platform that categorizes NGOs by their area of focus, location, and services can significantly simplify this process for beneficiaries. Similarly, donors and volunteers could easily navigate the platform to identify NGOs whose missions align with their values. (Chaudhary, Dighe, Desai, Mulla, & Dhote, 2017)

A major concern in the NGO sector is ensuring transparency and accountability in operations, especially regarding fund utilization and impact reporting. Donors, volunteers, and beneficiaries increasingly expect clear and transparent reporting on how funds are used and what impact is achieved. A web portal that integrates real-time reporting and project tracking could significantly enhance accountability in the NGO sector. (Ingle, Singh, Rathod, & Shrikhande, 2021)

The importance of digital platforms in the non-profit sector has been well-documented in recent studies. Online platforms help NGOs increase their visibility and streamline communication with stakeholders, including donors and volunteers. By leveraging a centralized portal, NGOs can enhance their outreach efforts and reduce the administrative burden associated with managing multiple digital tools. Furthermore, digital platforms allow for better resource sharing, fundraising, and data-driven decision-making, contributing to the overall efficiency of the sector.

Despite sharing common goals, NGOs often struggle to coordinate efforts due to limited communication channels. A common web portal could bridge this gap, enabling organizations to collaborate on projects, share knowledge, and optimize resource utilization. This is particularly important in sectors like disaster relief, where timely cooperation between organizations is essential for an effective response.

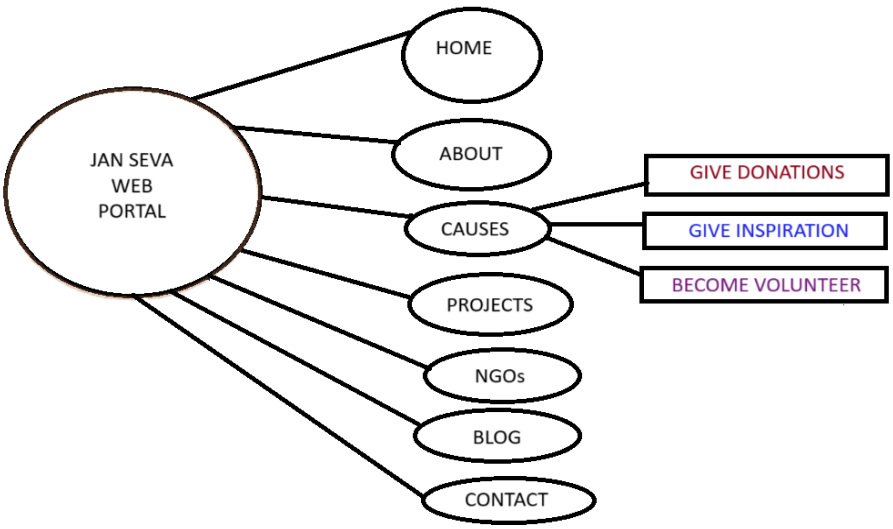
Online platforms designed for collaboration can help reduce the duplication of efforts, ensuring that resources are deployed more strategically. According to Snehal & Sneha, by creating a centralized hub, NGOs can communicate, post updates, share best practices and the sector as a whole can become more unified and coordinated. (Chaudhary, Dighe, Desai, Mulla, & Dhote, 2017)

A common web portal could integrate feedback mechanisms, enabling beneficiaries to provide insights on the services they receive. This would not only improve the quality of service delivery but also give NGOs the data needed to assess and adapt their programs to meet the evolving needs of their target populations.

Adopting a common platform requires a shift in how NGOs approach their operations and data sharing. Some organizations may be resistant to adopting new technology or sharing sensitive information on a public platform (McNutt, 2018). As a result, careful planning, support, and training are essential to ensure that all NGOs can effectively utilize the platform.

While the benefits of a common NGO web portal are clear, there are challenges associated with its development and maintenance. Turner and Murtagh (2021) emphasize that such a platform requires significant financial and technical resources, which can be a barrier for many NGOs, particularly smaller ones. Additionally, ensuring that the platform remains neutral and does not disproportionately benefit larger organizations over smaller ones is a critical concern.

Implementation



Technology Used

The choice of technology stack plays a crucial role in ensuring the efficiency, reliability, and long-term success of the platform. The technology stack for developing a common web portal for NGOs can be divided into front-end, back-end, database, security, and cloud hosting.

Front end Technologies

The front-end of the portal needs to be intuitive and responsive, providing users with a seamless experience across devices.

- **HTML5 and CSS3:** These foundational languages will be used to structure and style the web pages, ensuring a responsive design that adapts to different screen sizes.
- **JavaScript Frameworks (React.js or Angular):** JavaScript frameworks such as React.js or Angular offer dynamic, fast-loading, and interactive user interfaces. React.js, in particular, is known for its component-based architecture, which simplifies the development process and enhances scalability.

Back End Technologies

The back-end is the core engine of the platform, handling data processing, business logic, and interactions with the database.

- **Node.js or Django (Python):** Node.js, based on JavaScript, is known for its non-blocking, event-driven architecture, making it ideal for building scalable applications. Alternatively, Django (Python) is a highly secure and fast framework that simplifies development by providing an out of the box solution for building complex web applications.
- **Express.js (for Node.js):** As a web application framework, Express.js complements Node.js by simplifying route management, request handling, and middleware usage.

Database

The database forms the backbone of the platform, storing critical data about NGOs, users, donations, and more.

- **PostgreSQL or MySQL:** Relational databases like PostgreSQL or MySQL are suitable for handling structured data such as user information, donation records, and project details. PostgreSQL offers advanced features, making it an ideal choice for complex data management tasks.
- **MongoDB:** For unstructured or semi-structured data (e.g., blogs, comments, or user-generated content), a NoSQL database like MongoDB can be employed. It allows for faster data access and flexible storage.

Cloud Hosting and Infrastructure

A scalable and secure cloud infrastructure is critical for maintaining high availability and performance of the web portal.

- **Amazon Web Services (AWS) or Microsoft Azure:** Cloud platforms like AWS or Azure provide infrastructure-as-a-service (IaaS) solutions for hosting, scaling, and managing the web portal. These platforms offer features such as load balancing, auto-scaling, and real-time monitoring, which are essential for high-traffic web portals.
- **Content Delivery Network (CDN):** Using a CDN like Cloudflare ensures faster content delivery by distributing website assets across multiple global servers, reducing latency, and improving user experience for a global audience.

Security

Security is paramount in developing a common web portal, as it will handle sensitive data, including personal information and financial transactions.

- **SSL/TLS Encryption:** Implementing SSL/TLS certificates ensures that all data exchanged between the user and the server is encrypted, safeguarding sensitive information such as donation details and personal records.
- **OAuth 2.0 and JWT Authentication:** Secure user authentication is vital for protecting user data. OAuth 2.0 or JSON Web Token (JWT) authentication can provide secure access to the platform, ensuring that only authorized users can access sensitive features.

- **Firewalls and DDoS Protection:** To protect the platform from cyberattacks, firewalls and Distributed Denial of Service (DDoS) protection tools (such as AWS Shield) must be integrated.

Conclusion

Developing a common web portal for NGOs offers numerous benefits, including enhanced collaboration, increased transparency, and improved accessibility for both beneficiaries and stakeholders. Such a platform could revolutionize the NGO sector by fostering greater coordination and efficiency. (Javre, Shirsath, Meshram, Patil, & Deshpande, 2024) However, its success depends on overcoming key challenges such as financial constraints, technological adoption, and equitable access. Continued research and pilot projects are necessary to refine the concept and ensure its long-term viability and effectiveness in the non-profit sector.

The development of a common web portal for NGOs requires a well-structured technology stack that ensures scalability, security, and user-friendliness. Combining robust front-end and back-end frameworks, a flexible database, and reliable cloud infrastructure will create a solid foundation for the platform.

Future Scope

NGOs (Non-Governmental Organizations) can play a significant role in enhancing the mental health of individuals and communities by addressing gaps in mental health care systems, raising awareness, and providing resources. Here are some key ways NGOs can help improve mental health :

- **Educational Campaigns:** Conducting campaigns to destigmatize mental illness and promote mental well-being.
- **Policy Advocacy:** Pressuring governments to implement and improve mental health policies and services.
- **Media Outreach:** Using social media, television, and local platforms to share stories and information.
- Training counselors, social workers, and healthcare providers to identify and treat mental health issues.
- Supporting the public healthcare system in scaling mental health services

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