

Rojgar Wahini: Portal of the Directorate of Employment and Self- Employment, Government of Maharashtra

Jayashree Mukherjee

Commissioner, Directorate of Employment and
Self-Employment, Government of Maharashtra

ABSTRACT

All the 45 employment exchanges in Maharashtra have been computerised using the software *Rojgar Mitra*. With this software, the exchange carries out candidate registration, employer registration, candidate renewal, vacancy order booking and submission of candidate lists to employers. The *Rojgar Mitra* data base is built to integrate the exchange data at a central server.

Rojgar Wahini, a web portal hosted on the central server, provides access to this accumulated data. The portal facilitates online candidate registration, profile updating, employer registration, filing EMI returns and searching for suitable candidates in the vast data of over 45 lakh registered candidates.

The portal is also designed to cover the self-employment guidance activities of the Department of E & SE. The portal aims to disseminate information, guidance and advice to the unemployed youth regarding self-employment schemes, businesses they can take up, vacancies, courses and training details. The portal is a comprehensive source of information covering all applicable schemes, businesses with their processes and details of documents, NOCs, and agencies involved with complete contact details. Other features planned are a Bankers' Corner to give advice on loans and related processes; details of NGOs working for self-employment; details of *Seva Societies* registered with the exchanges for service sector; and references relevant to unemployed youth (competitive examinations, books, publications, newspapers, television and radio programmes).

Introduction/Background

During 1986–92, 117 employment exchanges out of the total 950 exchanges and UEIGBs in India were computerised. In 1992–93, the central government support to the project was withdrawn, and the state governments continued with their computerisation effort as per their capacity. Currently, 205 exchanges in the country are computerised. Maharashtra and Gujarat are two states where each exchange is computerised and data is available on the directorate portals.

The role of the employment exchanges is changing. The emphasis is shifting from placement to informing, advising and assisting the job seekers

with central/state self-employment schemes and advising them on training geared towards self-employment.

With this objective in mind, all the employment exchanges, UEIGBs and self-employment promotion cells in the state of Maharashtra have been computerised. The web portal *RojgarWahini*, <http://ese.mah.nic.in> has been developed for the Directorate of Employment and Self Employment (DE&SE) by the National Informatics Centre, Pune, and is hosted on the NIC Network: NICNET.

This portal is a one-point online source of information about employment, vocational guidance and employment opportunities. A centralised repository is maintained of all unemployed, such that this data is readily available to employers nationwide/worldwide.

The primary objective of the portal is to provide the facilities available at the exchange to the user's home/office. The pages are designed using Unicode fonts, to be displayed in Marathi or English, as appropriate to the subject matter. The dynamic, portable, Unicode-enabled portal provides access to data of 45 lakh registered candidates. The design is such that it is possible to translate the portal into any Indian language with minor modifications.

The portal has five major sub-sites: Candidates' Corner, Employers' Corner, Self-Employment, About Us, and Right to Information (RTI).

The Candidates' Corner provides registration, update and transfer facilities to the candidates, viewing registration information, job advertisements, departmental contact details, bulk recruitment, advice on possible jobs and occupations and special information for disabled persons. Candidates/registered youth can access references relevant to job seeking, like coaching classes for competitive examinations, books, publications, newspapers, television and radio programmes.

The Employers' Corner provides information relevant to employers and the facility for easy registration and submission of EMI returns. An employer can search the data of candidates registered with the exchanges in Maharashtra for suitable candidates.

The Self-Employment sub-site covers the self-employment guidance activities of the DE&SE, providing information, guidance and advice to the unemployed youth regarding all applicable self-employment schemes, small-scale businesses they can take up with their processes, details of documents, NOCs, licenses and permits required, agencies involved with complete contact details, and training details for the appropriate trade. The Bankers' Corner advises on loans and related processes. Details of NGOs working for self-employment and details of *Seva Societies* registered with the department are also available. The portal gives the list of defaulters who have taken loans and not paid back.

About Us contains information about the organisational structure, role, responsibilities and the office locations of the DE&SE.

The RTI – Right to Information – sub-site contains the 17 proactive disclosures made by the department as per the Act. The contact details of the

information officers of the department are also available.

The technology used is PHP, Apache Web server, Javascript, HTML, and CSS.

Security features as per NIC guidelines are implemented, i.e., Salted MD5 technique used for encrypted user-id and password. SQL injection flaws are addressed. Client- and server-side validations are included. Challenge response mechanism is used in feedback forms to prevent denial-of-service attack. Session management has been used.

It is planned to use BI techniques to access the large data-base for querying. A POC exercise is in progress in collaboration with Oracle, using Oracle BI tools.

The portal consists of over 2500 PHP pages and 500 DB2 tables, containing over 30 GB of data.

The portal is displayed in Marathi/English using Unicode fonts. The design is such that it will be possible to translate the portal into any Indian language without any extra programming. The technology used is PHP, Apache Web Server, Javascript, HTML, CSS, DB2 and Linux.

The work on the portal was started in April 2002. Several versions have been tried and discarded. The portal in its current form has started taking shape from January 2006.

The portal is available for use. Enhancements and development of additional features are expected to continue for another year. It is expected that the portal will keep changing as per the requirements of the users of the portal, i.e., the employers, unemployed youth and citizens at large.

Objective

The primary objective of the portal is to provide the facilities available at the exchange to the user's home/office. The dynamic, portable, Unicode-enabled portal aims to provide public access to the accumulated data of over 45 lakh candidates registered with the employment exchanges in the state of Maharashtra.

Overall Description

Replication

The following features enable the portal to be replicated to other geographical locations with very little modification.

- Adherence to localisation standards for e-governance issued by NIC: Use of Unicode and Inscript keyboard.
- Database-driven information organisation: The data in respect to candidates, employers, schemes, agencies and training is massive and

dynamic. So, a complete database driven solution is provided in DB2. Data volume is 120 GB.

- Keeping in view the rural audience, the portal is designed in Marathi (local language, Devnagari script) using Unicode. Since a Unicode-based design is adopted, no proprietary fonts are required to be downloaded to view the portal. The *Mangal* font has been used throughout the site. All image buttons use the GIST font.
- Portability: The design is such that the portal can be enabled for any language without any programming effort. The web site can be converted for a particular language by translating the content into the desired language, all dynamic data stored in a data base entered in the given language and all static information like labels, messages and help accessed from common files converted to the target language. Three elements of LAMP (Linux, Apache, MySQL and Php) have been used in the system.
- Maintainability: All care has been taken so that the site can be easily maintained by the user department. All information displayed on the web site is from a data base, and a facility is provided to authenticated users to add, update and delete the data elements as per the permissions granted to them. Style sheets are used to give a uniform look and feel to all the pages, facilitating easy maintainability. All labels, messages and colour schemes used are defined in common files.

Service Orientation, Ease and Speed of Access

The Rojgar Wahini portal is an e-governance application forming a link between the government and citizens (G2C). The portal also builds a bridge between the government and businesses (G2B) through the employer module.

Rojgar Wahini: Government to Citizens (G2C)

The candidate module allows an unemployed person to register with a particular exchange on the web. It allows the candidate to request renewal of their earlier registration, view and print their registration information, send a request for change of address and view their submission details. The portal publishes vacancy advertisements of departments of the government of Maharashtra. Private and central government job advertisements are also planned to be displayed on the portal. Candidates can get guidance for competitive examination coaching classes, useful books and magazines, and television and radio programmes relevant for job search. One can also view the candidate submission list for any exchange for the vacancy notified after January 2003.

The grievance-redressal-related link gives contact information to a citizen about whom to call or write to for obtaining a service or placing a grievance.

The self-employment sub-site provides information, guidance and advice to the unemployed/opportunity-seeking youth regarding self-employment schemes, small-scale businesses they can take up and training details.

The Employer Corner allows small enterprises or individuals to search the candidate data base to find suitable candidates.

There is a full sub-site on the RTI proactive disclaimers giving all the applicable information, including employee contact details.

Rojgar Wahini: Government to Business (G2B)

Employers can register with an exchange and update their profile. Registered employers can submit quarterly returns of employer market information; they can post their vacancy order notifications for inviting applications from candidates.

The portal is available through the internet. Candidates need not travel to an exchange and wait in a queue for their registration or renewal. Details about periodic bulk recruitment by the government for the police and *gram sewaks* are displayed. Candidates can also download various application forms. The services that are available at the exchange are now available on the web.

Other Relevant Information

- The portal has been tested for touch-screen usage. The graphical user interface of the portal is touch-screen enabled to facilitate the viewers to access it through kiosks.
- The technology used: IBM DB2 7.2 EE on RHEL 3.0 OS, PHP 4.3.2 for Linux, Apache 2.0 Web server, Macromedia Flash MX, Macromedia Dreamweaver MX, and Adobe Photoshop 7.0.
- User friendly: Intention-based design has been adopted by grouping the information such that it is convenient to the users. Access to the portal is through the click of a mouse, with minimal use of the keyboard.
- To develop and implement this e-governance project, department experts were involved from the initial requirement study stage. A core group of about ten expert persons is formed for each section. This group meets at regular intervals to approve specifications and test for usability.
- This portal fulfils most of the major credentials of an e-governance endeavour like centralised initiative, decentralised implementation, standardisation and localisation.
- The development of the portal involved process re-engineering and change management that radically changed the way the government delivers services.

- The portal can be accessed from service delivery points in rural areas. It has simple, easy to use, graphical user interfaces in local languages to service semi-literate and even illiterate people. Interaction with the portal is through the click of a mouse, with minimal or little interaction with the keyboard. It has interactive guidance as users navigate through the pages, making them simpler and quicker to use.

Future Plans

The future plans are firstly to consolidate and stabilise the service. A systematic design is being planned to regularly update the information on a three-tier basis by the department staff. This will roll off soon. Hopefully, this step will prevent the usual sight of government-run web sites showing outdated and incomplete information.

Secondly, a module has been planned for the informal/sector, wherein persons working in the informal sector offering services such as those of drivers, plumbers and domestic help will be listed and users can also post their demands. There are several sites that list users' requirements but hardly any that lists the service provider in the informal sector.

Thirdly, we propose to use data warehousing tools to analyse data. This service will be given to the employers as well, enabling them to generate lists of potential candidates.

Conclusion

Our objective is to make *Rojgar Vahini* a complete and updated service provider for job seekers and employers and, in the near future, for the informal sector as well. The plan is also to provide services to the tiny sector of entrepreneurs.