

The
PANTOTO COMMUNITIES
Project

Janastu: Let it be people!

The mission of Janastu is to sustainably e-enable the social development sector to pro-actively manage community-based knowledge. The "let it be people" approach will provide a model where participatory management enables community based knowledge repositories.

Participation is networking, collaboration, dissemination, communication, building applications...

Community is focus group, beneficiaries, associates, members, co-ordinators, managers...

Knowledge from MIS, surveys, monitoring & evaluation, events, documentation...

Pantoto: meeting a pan community need of information management in toto

Pantoto Communities software development project started with a mission to bring information architecture and information management tools to the level of the common man. Over time, while working in the Indian context to cost-effectively develop the software, a clear identification evolved of the difficulty faced by small organizations (like ourselves) in getting software developed for their intranet or Internet needs. The Pantoto model has been iteratively developed while working with small and medium user groups.

Our mission is to develop a toolset for small organizations, particularly those in the social development/NGO sector that enables them to manage information without software development dependency. Pantoto model helps communities (organizations) to manage information. Pantoto over the last year has been deployed in a few places after training a small group on the concepts of information and community management. It is our belief that with some tuning and packaging work we can enable a larger set of communities to make avail of it.

1. The PANTOTO Project

1.1. Justification for PANTOTO

- Organizations in the social development sector work directly with beneficiaries, capture, create, and work intensively with data, information, and knowledge.
- Dependency on technical professionals to build information management systems causes delays. The cost of hiring such professionals and related resources also makes the effort unsustainable.
- Equitability can arise when organizations can create, maintain and deal with information management systems by themselves.

Based on these factors, if IT is to be used by organizations in the social development sector, they have to be empowered to:

- Take the design, implementation and maintenance of an information management system for granted and not necessarily have to acquire IT skills or hire IT professionals.
- Redesign or evolve the system based on changing information needs
- Build solutions that are easy-to-use, affordable and quick to deploy
- Use the same process across projects and in different areas
- Manage the participatory creation of locally relevant and locally created content

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1.2. About Us

The vision of the PANTOTO team is to empower small organizations, particularly those in the social development/NGO sector with tools that facilitate information management in an affordable and evolutionary manner.

About four years and over three hundred man months have been spent on the development of the PANTOTO Communities software. Led by a team of computer scientists, the software has been through an iterative development and proof-of-concept testing phase and now a growing client base is in place.

Unlike a typical IT enterprise, our style of working emulates an organization in the social development sector whereby we hope to understand the problems of our target group while making our solutions affordable to them. Disparity of income of the IT sector to that of the social development sector is enormous in India. For example, an entry level software developer in an Indian IT company could earn as much as, if not more than a seasoned professional in the NGO sector. Only by keeping our software development costs low and by emulating the work environment of the typical NGO, can we deliver services in a sustainable manner to the NGO sector. Our efforts to commercialize the software are to sustain the operational and R&D costs, so that we can continue to offer subsidized services to NGOs, through revenues that we earn from SMEs.

1.3. The PANTOTO Software

Irrespective of the size and motivation of organizations there is a commonality in information management needs. Identified needs include form-building, data or content gathering and community-network structuring; while taking for granted search and match, access control, authentication, communication, dissemination and reporting tools.

PANTOTO brings together these common information management solutions under one umbrella and allows users to customize and then delegate the management of information. The only interface with the software is through a browser and the training required is up to one-week depending on the role of the user in the community. This enables an organic process of continuous evolution of information structures and purpose based sub-community formation.

1.3.1. Deployment process

Two people are trained for one week. During this period they are coached in building one information management model (simple Web application) and also go through a train-the-trainer exercise. This includes in-depth demonstrations of how other organizations are using the software.

As information needs change, authorized users can create new categories of information, define or refine how information will be gathered, define read/write access levels to categories, and define parameters on which information in the category will be searched. One can optionally specify slices or domains that define alternate entry points and look and feel.

1.3.2. A user perspective

Categories of structured information are organized in the form of a tree, which can be browsed. Users can recommend and take editorship of new categories. An editor of a category can share responsibilities with other users. The editors decide the access rights of the categories. Editors also define the information structures/forms that will be used to collect information. Users post and search for information using the

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form and can post remarks or send private messages. In a PANTOTO Community, a posting is referred to as a pagelet.

As a category tree grows, more editors become involved in enhancing and managing the information architecture and responsibilities are delegated. A user can have a number of personas (also groups) in the system allowing them to play specific roles and collaborate. Every pagelet has structured information with a communication wrapper. Editors can use these features to build information and community management solutions as needs emerge.

2. Current Project Status

- **Localization**
We have recently received a two fellowships from Sarai for the localization of the software. The fellowships will allow us to make available a localized version of the software in Indian languages within one year.
- **User Interface**
Another project of ours, NGOpinions which we are working on jointly with Indicorps, has brought in enough resources for us to improve the user Interface, based on feedback that we have received through proof of concept tests.
- **Software Release**
As of March 2004, we have completed the second formal release of our software. With this release we have over 20 different community based applications of the software. These applications include communities created by our clients, model communities and those built as proof of a concept.

3. Description of technology involved

PANTOTO uses Web-technology -- software runs on a server and people can access it through a Web-browser. PANTOTO is installed on a server in an organization, or on an Internet host, and people use only a Web-browser to architect the needs of a community of interest. Typical community needs include provisioning for delegation of roles, collaboration, and creating the space and forms for disseminating and gathering information.

Technology chosen for development of PANTOTO is based on two criteria: (i) It could be made available with low or free licensing costs, and (ii) Most software developers in India can develop it. It is developed using Java, and open source Apache License software (E.g., WebMacro and Lucene). It is developed on open source platforms (Linux, MySQL, Tomcat). Java helps bring about object-oriented concepts in the software, therefore easier software maintenance. These are significant factors in an Indian environment, where attracting and retaining developers for the social development sector is difficult. Servlet specification standards help in easy installation of server on various platforms which includes both Linux and Windows. The browser interface enables people to interact with PANTOTO using either IE or Mozilla browsers. For interoperability needs, import and export of data is possible through spreadsheet formats, SQL, CSV or XML.

The PANTOTO model captures the typical needs of an Internet community and makes it available to an existing community (e.g. organizations, enterprises or school environments) or an upcoming Internet community. The model captures the spirit of the Open Directory Project (<http://www.dmoz.org>), the Yahooo classifieds and Craigs-list, various online communities, online survey needs and enterprise intranets.

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More formally, PANTOTO can be likened to a structure-encouraging Wiki, or a generic-blogger that allows organization of arbitrary meta-structure with roles and security levels. It is an evolutionary model that encourages participation

1. to create a closed world semantic web,
2. by sharing of meta-information between (sub) communities, while naturally creating ontologies
3. in building simple Web applications,
4. in community communication and by facilitating rudimentary workflow, and
5. in a individual/sub-community Web presence

4. Sample Clients and Applications

APPLICATION	Organization	Type	Profile	Application Description
MIS	National Institute of Advanced Studies A.R.Vasavi arvasavi@nias.iisc.ernet.in	Socio-economic research	Bangalore based research organization that is using PANTOTO in a monitoring and evaluation program of schools in the Chamarajanagar district of Karnataka.	Web enabled baseline survey of schools, teachers, parents and decision makers. Allows compilation of information by district, block and school level for analysis using spread sheets.
Patient Management	proVision Asia Pradeep Kumar G newhorizon@newhorizontrust.org	NGO	Bangalore based NGO that works with "people with disabilities". Provides training, medical and other interventions to their target group.	Intranet based client management system, to handle patients on a case by case basis
State-wide MIS	Directorate of Municipal Authorities, Government of Karnataka, Channappa Gowda, Joint Director cgwda@yahoo.com	Government Body	Responsible for the implementation of all Government sponsored schemes in urban areas in Karnataka State.	Web based information management system that captures expenditure and helps decision makers allocate resources for employment and poverty alleviation schemes. Designed and deployed by the DMA Staff MIS Reports using data that is exported to spreadsheets
SME Intranet and Website	Shrishakti Alternative Energy D.V. Satyakumar dvsk@shrishakti.com	SME	Hyderabad based company that markets solar and gas based products and provides consultancy services in the area of alternative energy.	Customer Tracking Dealer Tracking Inventory Management

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APPLICATION	Organization	Type	Profile	Application Description
Online community for teachers and students	Chirec Ratna Reddy chirecps@hd1.vsnl.net.in	School	A school knowledge community created by teachers of Chirec school in Hyderabad	Managing Lesson Plans (for teachers)
				Dining Hall Surveys (for staff and students)
				Online spaces that discuss volunteer work (for students)
Website Projects and Experts Database	IDPAD Sanchita Dutta ratna26@hotmail.com	Research and Academic Institution	Intergovernmental organization that funds social scientists in Netherlands and India in the areas of Urban Development, Health, Water, Gender Issues and ICTs	Updating and maintaining a searchable list of social scientists
				Extranet for the project secretariat
				Project related information and outputs
Baseline Survey	Gram Swaraj Samiti Sudha S gramswaraj@vsnl.net	NGO	NGO that is working in the slums of Banaglore in the areas of poverty alleviation and health and hygiene	Data capture and organization
				Tabulation and reports using spreadsheets
Extranet	Indicorps Anand Shah	NGO	US based NGO, that funds young people of Indian origin to spend one year working on a social cause in India	Organizational Extranet
				Feedback and reporting
				Capturing stories and experiences
Online Community	NGOpinions [A Janastu and Indicorps initiative] T B Dinesh dinesh@servelots.com [Under deployment]	Online Community	A website to collect and manage stories and experiences from the NGO sector in India.	Volunteer driven with editorial responsibilities being delegated
				Publication of stories written by volunteers
				Workflow for online publishing
Organizational Website	The Dharani Trust Dr. Bakachandran info@dharanitrust.org	NGO	An NGO that uses cultural geography as a window to understand the growth, development and the impact of the HIV epidemic in India.	Organizational website and management of organizational events such as conferences
Intranet	Servelots Infotech Anand Bala anand@servelots.com	In-house	The team that developed the PANTOTO software. Being used as organizational Intranet and knowledge base.	Intranet
				Corporate website
				Bug Tracking
				Contact Management
				Documentation

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All the applications listed have been designed and deployed not by developers but by users and community representatives who have the onus of managing the information. The time that it takes to deploy a solution ranges from one week to one month, thereby eliminating the typically large and often-vicious software development delays. Organizations have started with hardware infrastructure limited to one PC, or hosting through cable modem if Web hosting is required, further reducing costs.

The software can be used by most organization provided they have access to one or two computers. There are estimated to be 1 Million NGOs in India alone. At least five percent of these will be ready to use PANTOTO once it is localized and productized. This estimate excludes SMEs, government applications, individuals, schools and other institutions.