

Concept Note - South India Regional workshop on
'Software Principles for the Public Sector, with focus on Public Education'
on 1st and 2nd February, 2010 in Bangalore

South India regional workshop in Bangalore:

UNESCO, e-Governance Department, Government of Karnataka, Department of Public Instruction and Sarva Shiksha Abhiyaan, Government of Karnataka, Karnataka Jnana Aayoga (Karnataka Knowledge Commission) and IT for Change (ITfC), are co-organising a workshop “Software Principles for the Public Sector, with focus on Public Education” on the 1st and 2nd February, 2010 in Bangalore.

Background:

The Public Sector in India has a well established tradition and clear guiding vision and principles in its establishment and evolution over the last six decades of independent India. It has continued to be the bastion of support to the causes of equity and social empowerment and justice, working for the interests of the poor and marginalized. Given this background, the public sector has had some clear guiding principles including:

1. Working for social justice and equity, to address age old issues of poverty, illiteracy, malnutrition/ill health, unemployment etc, by ensuring free and easy availability and access to public education, public health provisions, employment nets etc.
2. Privileging public interest and public welfare over private gain or profit (while the latter is essential part of society, the public sector works for the public interest)
3. Ensuring that basic facilities and resources required by all are available/accessible to all, without any demographic or economic barriers.
4. Provision of 'Public Goods' which is essential to all but does not provide sufficient incentive for markets to provide
5. Promote a culture of transparency, as well as public participation in its own working, with accountability for its work and decisions to larger society. In a democracy, the accountability requirements of the public sector to society are even higher.

In the context of a developing country as India, these 'public sector' principles are even more important to ensure that millions of poor and marginalized have access to the real benefits of freedom and are empowered to participate fully in their own life decisions as well as in societal ones. These 'public sector' principles are clearly evidenced in government policies and programs. With the vision of providing access to water resources, governments design policies and programs to create and maintain with public funding, public water bodies with community participation and monitoring. Similarly for providing access to education and health resources to all, governments set up schools and primary health centres across geographies, and especially in remote areas and especially to marginalized groups. In each of these areas, private providers exist, however their principles of provision would clearly not be able to ensure universal access which is the cornerstone of government vision and policy.

Support to 'public systems' for such provisioning is hence clearly thought a necessity, even as private systems cater to needs of those who can afford its services. In addition, the accountability to the public for such basic universal provisioning can be ensured only through public sector.

Public Sector Software Principles

Similarly, when it comes to software, these guiding principles of the public sector need to inform decisions of software architecture, design and deployment. ICTs are also beginning to play an important role in the information and communication processes within governance systems, and e-governance is acknowledged to be an area that has potential to **transform governance through greater transparency, accountability and participation. There is a need to explore and understand the role and possibilities for the adoption and promotion of software conforming to such 'public sector requirements and philosophies in e-governance and in different aspects of the work of the public sector.** This need has become even more critical in the last decade with diminishing understanding about the critical role played by the public sector and the primacy given to technological and market based perspectives in ICT projects, in the absence of firm grounding guidelines derived from a deep understanding of public sector ethos.

Thus Public sector computerization projects require careful thinking on issues such as accountability to the public, costs of access that impact equity, providing universal services which requires independence of the provider (dependence on private sector can be a cause for failure of public provisioning), encouraging community participation etc. Apart from the obvious economic and security aspects, there are certain political and philosophical imperatives of the public sector that the software architecture needs to be in alignment with, including those of openness and collaboration / sharing. Such principles can be seen as '**Guiding principles for policy on software for the Public Sector**' and need to be discussed, debated and designed for guiding ICT Projects.

The proposed workshop will provide initial thoughts on this aspect and will encourage participants, who are veteran practitioners and policy makers in different departments in government to take this work forward to frame a for the '**Public Sector Software Principles (PSSP)**' that can help integrate the software / computerization and the public sector domains in meaningful and useful manners. This would be an essential component of efforts to rejuvenate, strengthen and reform the public sector to fulfil its mandate to society. Just as ICTs have transformed the working of the business sector, it has the potential to transform public sector working and effectiveness, however, for this, it is essential to adopt the PSSP in its architecture and design and not treat it as a mere technological issue that computer experts would deal with.

Education

The public education system has as its essential element, the sharing of information and the co-construction of knowledge amongst teachers and learners. Given that this process has a significant component of information and communication, it points to the significant role that new ICTs can play in education. In case of Public Education, apart from the overarching 'public sector' principles, the decisions regarding the design of computer programs in schools, also need to be made clearly from pedagogical principles, philosophies and accepted educational policies. These require exploration on issues such as constructivistic approaches to learning, collaborative curricular design, focus on teacher professional development, using personal computers with internet connectivity to enable learners to connect to new information sources, communicate with peer networks and with guides and mentors, use software tools to create new knowledge artefacts whether audio-visuals, or images etc.; apart from ICTs such as radio, films etc. etc to form the bedrock for ICT policies and programs in schools. The traditional bottlenecks faced in the public education system (which is also largely true for public sector as a whole) to many of the issues discussed here are actually connected to the possibilities of new ICTs- digital media enable far

easier sharing and transmission, electronic networks enable communication and community building far more easily, universal access to knowledge resources etc.

However, in many cases, whether in education or in other domains, software decisions have largely been seen as being 'technological' and the critical aspects of public sector (and additionally pedagogical in case of public education) have not been adequately considered in such decisions.

Different states in India has attempted various kinds of experiments with the use of ICTs in schools, from providing computers to schools, satellite transmission of educational content (EDUSAT), use of radio, educational content often created by other organizations, perhaps looking at these as more as technological marvels in themselves that can solve problems, rather than as tools and media that accepted philosophies and principles need to guide the design and use of. In the context of developing countries, where education system budgets are highly constrained, and basic infrastructure in terms of drinking water, toilets, security walls, let alone libraries, laboratories etc is still missing in many institutions, a careful and appropriate use of new ICTs is required, that can help meet the complex goals of the public systems. The role of such 'public software', from the political, social, economic and equity angles needs to be deliberated. In the context of the larger public sector, a debate of this nature is novel and needs to be co-constructed actively by public-welfare minded government bureaucrats, academicians, civil society workers etc, who constitute the public sector.

In the case of education, many of these principles have been implemented in the Kerala IT@Schools program, and will be shared in the workshop.

Workshop objectives:

The objectives of this workshop include:

1. Contribute to a better understanding of how the specific contexts and vision/ethos of the public sector, including principles of universal access, participation, transparency and social justice would inform the architecture and design of software for the public sector.
2. Share experiences and lessons in “public sector software” development and implementation programs in southern states of India and highlight potential areas and challenges .

The workshop aims to create two documents from discussions: '**Guiding principles for public sector software**' and '**Experiences and learnings as well as challenges from public software projects**'. These documents would feed into the subsequent international workshop on a similar theme being organized by Government of Kerala, UNESCO, Solution Exchange, and IT for Change in March 2010.