

# Projects in Interactivity in India

## Problems and Opportunities

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Jaipur - 302005

Rajasthan, INDIA

India is a developing nation with a low per capita income distribution, and its population is spilling over a staggering 850 million. People with diverse social and cultural backgrounds reside in its 23 states and other provinces, speaking as many as 14 (official) different languages and over 200 dialects.

The education system in India is highly textbook-oriented. Right from the Class I level, children are burdened with the most unimaginatively prepared textbooks, which often have pages upon pages of disjointed information which they often are unable to grasp.

The advances of science and technology have not percolated down to the poor. A major contributor to this factor is the lack of proper machinery to communicate the advances of science and technology to the masses. The answer is to demystify the process of disseminating technology to the field.

A leading industrialist, Mr. G. D. Birla, realized this widening gap and decided to set up the country's first science museum, the Birla Museum at Pilani, in the year 1954.

In 1957 came the first major Industrial and Technological Museum at Calcutta. The National Council of Science Museums was set up by the government of India in 1978 and in the short span of 12 years they have established a chain of 14 science museums all over India, with many more under various stages of planning. These museums are at three levels - National, Regional, and District. The National and Regional science museums use "hands-on" exhibits pertaining to fundamental sciences, while some district science centers have exhibits pertaining to localized problems and environmental sciences. These government-run institutions also have a fleet of museo-buses which travel across the country with small temporary exhibition kits which generally emphasize basic science, environmental problems, personal hygiene, and sanitation.

However, it has been largely felt that the mere fulfillment of the program formalities of taking science to the masses has not been very effective. People crowd around the museobuses out of curiosity and lose interest almost as soon as they encounter a few static models and puzzles and charts. The exhibits often fail to excite the people and often fail to correlate with the intellectual level of the villagers. Each village has to be assessed with a different yardstick. There can be no rigid and uniform standard methods.

In 1982, the electronic medium of television entered into this scenario. The government decided to provide television coverage to 70% of the population. During the year 1984 at least one transmitter was commissioned every day for almost 5 months. And in the last five years this media has been used forcefully to convey crucial socio-economic messages. Environmental awareness, the importance of protecting trees, ground water, building small dams, storing rain-water, mechanized harvesting; powerful social messages on the evils of untouchability, child marriage, equal opportunities for women, the importance of learning how to read and write and the usefulness of science and technology.

## International Conference on Hypermedia & Interactivity in Museums

Hypermedia and interactive experiments and demonstrations have a hitherto untapped, enormous potential for effective science communication. A careful study and thorough research work, after identifying the needs and levels of various regions, can promise high-gain returns.

Interactivity will be meaningful to greater numbers of people when schools and other educational institutions, have the infrastructural machinery to take their students to the interactive science centers, which are at present rather too few. In villages, a regular follow-up program, after the mobile demonstration units pay a visit, could prove to be effective, provided the programs are carefully researched and designed in correlation with the immediate and long term problems of the people of that region.

The presentation would also include a case study of a project undertaken by us on these lines in a small village in Rajasthan.