

Role of Universities in Digitising Rural Communities

By

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ABSTRACT

Today's real border are not between nations, but between powerful & powerless, free & fettered, privileged & humiliated(Kofi Annan, 2001). The humiliated, fettered and powerless, in this context are the rural population, mainly because they are remote, they lack information. With small and widely – dispersed population, rural areas, constantly face deteriorating services. They often face difficulty in obtaining even the essential services, being forced to travel, despite the fact that there is an abundance or saturation of goods and services in their neighbouring urban areas. Many of the services, essential for everyday life are available only in the urban areas. This paper describes the ways in which universities can bridge the digital divide.

KEYWORDS: Digital Divide, Rural Information, University Digitisation

0. INTRODUCTION

This divide amongst the populations of developing countries, on the basis of some factor or the other has always existed. If the earlier divide had been in terms of urban – rural divide, the present divide is the Digital divide. These are not mutually exclusive. Digital divide also overlaps the urban – rural divide. Being remote, the rural people are far away from information and various opportunities. This geographic barrier has to be shrunk through practical applications of Information Technology and people must be brought closer electronically. Bridging the digital divide, means ensuring equitable access to information through computers and the

Internet, along with the ability to effectively use these technologies, provides us with an opportunity to also bridge the urban-rural divide and address the problems of rural development more effectively.

The major problems of rural areas are distance and dispersion. The small size of the communities make it less economical for the private players and also Government to provide good quality services. Rural areas, till now, had less access to technology, information and services. They require information about more productive agricultural practices, alternative crops, animal husbandry, potential for value addition, information about preventive health care etc. Internet and computers enable us to ensure that rural populace has an equal access to information about opportunities and hence development of rural areas can proceed at a much faster rate. Providing easy access to information on services and technologies will help the rural residents, regardless of their occupation or economic status, take informed decisions. With nearly 70% of the population residing in rural and remote areas in most developing countries, the information network and contents have to reach these areas if there has to be any substantial change in the rate of development and quality of life.

Internet and Computers are not magic wands which can by themselves bring in transformation or development. They represent an enabling technology, which provides a channel for transfer of information. But information still requires to be managed. For technology to be used, it should be matched with need. Local factors must be paramount in determining what is to be implemented. The role of content creation in local languages, modification to suit specific area conditions, responding feedback requires an institutional framework. It is at this juncture that the Universities come in.

Universities can play a major role in this transformation. These institutions can be a specialist and at the same time a very economical means of providing internet and computer-based information services to the rural areas, through their academic skills and knowledge. In our opinion, there cannot be a substitute for this, since universities are no longer bound within the four walls. Universities have already crossed the boundary and have moved away from the urban areas and large cities to serve greater population. The Open University concept has taken the university to the small towns and even villages. What this paper proposes is a step ahead. Using the computer and internet, transmit locally relevant knowledge and information in all areas such as agriculture, livestock management, water management, health and nutrition, career opportunities, vocational training etc to the different population segments in rural areas.

Universities will also benefit from this role. The faculty will become more attuned to the needs and conditions in the adjoining rural areas and this helps them in their research. This also enables the universities to apply their knowledge and skills in the field. With the interactive nature of this programme, valuable feedback will be available from the rural areas which will help the different faculties. Students of the universities can obtain valuable practical experience in their field of study.

1. RURAL INFORMATION NEEDS

The information needs of the rural areas have been analysed by different studies. But these will not be uniform amongst all rural areas. The prioritisation of needs would be dependent upon the state of development of the concerned rural pocket. Those, which are closer to urban areas having access to better infrastructural facilities, would prioritise economical needs whereas, backward areas with very poor infrastructural facilities may prioritise needs such as health etc at a higher scale.

We conducted a survey of rural men, women and youth in six villages in Gulbarga district of Karnataka state in India to understand their felt needs. The needs identified by the respondents are summarized in their order of preference in Table 1.

Table 1 shows that for men economic information forms the priority area for assistance from computers and internet. Women assign higher priority to information on health and children related information. Youth are more interested in career and job opportunities.

The different information needs of the rural areas can be summarized as follows :

Economical - Mainly on rurally relevant occupations such as agriculture, livestock management, rural/ cottage industries, food processing etc.

Health & Nutrition – Preventive health care such as immunization, symptoms of different diseases, pre – natal and post natal maternity care, baby and child care etc.

Career Opportunities – Careers available, training required, design and provision of training materials etc.

Education – Educational and career options, self learning training packages specially for children and youth, adult education packages etc.

Transactions with Government – Rules and regulations, land records, government forms and procedures, different government schemes and benefits and the qualifications required for benefiting from these schemes etc.

Financial – Loans and subsidies available, source for funds/ loans, pre-requisites for obtaining loans etc., information regarding status of applications for loans;

General – Meteorological information, train and bus timings and schedules etc.

2. THE ROLE OF UNIVERSITIES

Let us analyse the strength of Universities with regard to a role in provision of IT services in rural areas. Here we are not considering the technical / networking aspect of IT, but only the content preparation (also including continuous updation based on new technologies and also feedback received from the field), content transmission, facility for the target audience posting queries / feedback from the respondents and response to the queries.

Needs assessment can be handled by the students of the Departments of Library Science, Social Work and Social and Preventive medicine. Universities have a major advantage in that a greater number of the students come from the adjoining rural areas and hence form a crucial link between the universities and the rural areas. These prioritized needs have to be discussed with the key stakeholders and policy makers in the government to define the content packages to be developed. This would also be of help to the government in the design of the projects or schemes specifically aimed at different types of areas.

Content preparation requires the knowledge of the subject, knowledge of the concerned rural areas so as to make the content area-specific, knowledge of the local dialects and terminologies used so as to communicate better and the basic knowledge of creation of multi-media packages. Universities have all these skills. All that is necessary is to create the organizational framework to enable the universities to pool its strengths and skills together to take up this task. Students from the concerned rural areas studying in the university can provide the required information about the local dialects and terminologies used and also the local conditions such as soil type, type of irrigation facilities available, eating habits, morbidity pattern etc., so that the content can be made area specific.

The different faculties of the Universities (eg. Agricultural college, Medical college, Science faculty, Department of Mass

Communications, Social Work and Computer Science) can provide all the technical skills necessary for the creation and management of content. The subject matter can be prepared by the concerned specialist faculty and students (eg. Agricultural colleges for packages about crops, soil management etc.) and the preparation of the multi-media package can be taken up by the students of mass communication and computer sciences.

Universities can design the training and learning packages as off-line packages, which the respondents can use at their convenience and whenever necessary send their query or feedback through the internet. But wherever the data is dynamic, such as market prices for commodities, the information would have to be made available through internet. This would require that the university host a web-site containing all the materials. The university would also have to ensure that the dynamic data is updated regularly – at least once a day.

Content transmission : It is at this stage that internet and computers come into the picture. The network would progressively have to be extended to all villages – or at least the larger villages. Community Information Centres would have to be formed at these locations and computer and internet facilities provided. The type of community information centre developed by the M.S.Swaminathan Research Foundation (MSSRF) in select villages in Pondicherry can be used as an example. There are a number of other examples and models available from different developing countries for the development of Community information centers. This paper is not focusing on the design of the Information Centres, but the role of universities in this programme. Development of the Community information centers can better be left to the local NGOs or the local administration or to the students of the university hailing from the concerned areas.

The rural information centers will be enabled to log on to the university web-site for the different information they require and the content packages can be made available from the web-site or through CDs. Given the poor availability of telephone lines in rural areas, it would be preferable to supply most of the content through CDs, leaving the internet as a means of accessing dynamic data, for transmitting queries and feedback from the respondents and the response from the university faculty.

Additional Benefits : This link can also be used for providing specialist assistance to the professionals operating in the field such as health professionals, agricultural extension officers etc., who can get their problems and doubts addressed by specialist faculty available at the universities. The project design could be on the lines of 'Telemedicine or Telehealth'. This can ensure that professional operating in rural and remote areas are kept updated technically and also that they have the knowledge and skills of a university to back them in solving problems encountered in the field.

Organisational Framework : The university would have to develop a small cell for managing the entire programme. The role of this cell would have to co-ordinate the efforts of the different specialist facilities to:

- Ø Identify needs
- Ø Design content specifications
- Ø Get the content packages developed by the specialist faculty
- Ø Daily update the dynamic data such as market prices of commodities etc.
- Ø Compile the queries and feedback and pass on to the concerned faculties and transmit their responses back.

Funding : Universities having specialist faculties on their rolls and with optimal use of student services in the programme can operate this programme at a cost lesser than any other agency. This funding can be obtained from the government and also international agencies. If the university does not find it objectionable, advertising revenues can be generated through

advertising on the web-site both from the government (about its programme) and from private players. The web-site would be having substantial number of hits from the rural areas, which any advertiser of products or services would find very expensive to access directly and hence the university web-site can be an attractive media for advertising.

Benefits to the University would be manifold. This would move the university from the heights of the ivory towers down to the field level and help build the classroom to the grass roots link, which would make the universities receptive to the requirements of the communities. This also could help design of action research projects. The meaning of the word 'academic' which has conventionally been taken to mean 'removed from reality' would get redefined as 'application of latest knowledge and technologies to the field so as to maximize the benefits'.

Scientists would also benefit by getting involved in these projects. They would get an opportunity both to find out how their knowledge and skills are applicable in the field and also of helping their rural communities which have sent them to the Universities.

3. CONCLUSION

Universities can play a major role in bridging the information gap for the rural population of the country. In this era of Information Technology, using the computer and internet, they can transmit locally relevant knowledge and information in all areas such as agriculture, livestock management, water management, health and nutrition, career opportunities, etc. to different population segments in rural areas. By providing advertising avenues on their web sites for the rural masses, they can generate revenues too.

TABLE : 1

RESPONDENT CATEGORY

MEN	RANKING
Information on financial lending agencies	1
Information on local job opportunities & income generation opportunities .	2
Information on Agriculture & related topics	3
Information on topics such as water management	4
Information on prices of commodities	5
Medical facility available to attend to diseases	6
Information on Train & bus timings, land prices, Rates & taxes, festivals	7
Information on training in Crop Protection, Use of Pesticides, Water Management, Fertilisers, Use of Improved Technologies	8

Information on Meteorological Forecasts	9
Information on Insurance cover available for Crops & Livestocks	10
Adult Literacy Programme through Multimedia	11

WOMEN

Information on Safe Child delivery	1
Knowledge of Preventive health care- Vaccination & Immunisation	2
Information about Symptoms and cure & Prevention of common Diseases	3
Information on various family welfare methods and Information on How to overcome their negative effects	4
Information about Children's Education	5
Information on different water treatment methods	6
Information on Loans & Subsidies and supplementary income Generation activities	7
Information on First-Aid	8
Information on Legal Rights of Women, Prevention of atrocities etc	9

YOUTH

Information on Area-specific income generation activities	1
Information on various Specialised & Vocational Trainings	2
Programmes on Career Guidance, Prospectus, Training	3
Multimedia packages on Science, History, Culture, Art	4
Information creating Awareness about personal & civic hygiene, First-Aid	5

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