Tele-cottage approach to the community development in the rural Karnataka, India

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ABSTRACT

This paper describes the concept of telecottage. Tale-cottage is co-operative approach. It involves local residents, representatives of government at all levels, educators, and business people. It is financially supported by the national state and local government. There are participation of the representatives in the design and establishment of the program. It represents a community, response to a local problem. It will enhance communication among people and interaction networking. It facilitates the social and cultural acceptance of information technology. Further suggested a model for developing a telecottage system; for the rural Karnataka under the public and mandal libraries.

INTRODUCTION

The Tele cottage approach to community development began as a pragmatic empirical attempt to solve a practical problem. The first Tele cottage was "Harjedalens Telestuga"[1], established in a mountainous area in the north of Sweden. The Tele cottage concept accords well with accepted principles of education and training and with the requirements of the Internet age. It is no accident that it has been emulated and adopted in many countries of Europe and beyond. Networking and sharing of experience, learning together is no less important for organizations then for individuals. In the present study an attempt has been made to give a model plan for the Telecottage approach to community development in rural Karnataka state of India.

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DEFINITION OF TELECOTTAGE

A telecottage is a highly technology information and service center. It is normally located in a rural area and run by dedicated volunteers. It gives local information and data processing services to community, companies and individuals. Its main sources are education and training of adults and children. It teaches use of telecommunications equipment and computers. It organizes seminars, workshops, consultations to businessmen, based on local needs.

OBJECTIVES OF THE STUDY

The main objectives of the study are:
1. To provide opportunities for people in the area to use modern technical equipments, thus reducing their fear of the computer and their resistance to it;
2. To educate and train the public at large in the use of computers, and making them self-sufficient of distance to cultural centers and facilitating their access to the benefits of Information and Communication Technology;
3. To help local trade people in purchasing the right kind of equipment, suited to their needs;
4. To foster local participatory democracy; and
5. To increase international co-operation.

METHODS AND MATERIALS

Questionnaire and interview methods were fallowed to collect required data from various groups of people. The detailed questionnaire was first prepared in English and was later translated into Kannada to facilitate its compression by the rural community. The English language questionnaire was given to a very small percentage of respondent's viz. educated persons and to those who lived in border areas and those who had migrated from other states. The questionnaire was framed to collect the maximum possible information on the following aspects:
i.)   Personal information;
ii.)   Library information; and
iii.)   Communication media.

The whole area of Karnataka for the above purpose was divided into ten zones. These zones are as created by the University of Agricultural Sciences, Bangalore on the basis of climatic condition, rainfall and soil. From each zone, two villages were selected randomly in which there were library facilities. Fifty farmers were selected from each of the twenty villages, from ten zones. Hence, total samples of 1000 farmers were considered for the study. The field trips for investigation were planned as economically as possible. Hence villages were selected within the radius of, approximately 40 km; of the district head quarters. The village also had to have a reasonably good library.

(The state government of Karnataka has launched an e-governance initiative called E-Halli (E-Villages), for disseminating important information located in the village panchayat Premises and around 5,628 centers in all will be established. The E-Halli centers will provide services and information about various schemes of Government departments, both Central and State, gram panchayats, banks, hospitals, blood banks, diagnostic centres, veterinary centres, market prices, agricultural farming, business, educational institutional and so on. Interestingly, the centers intend to charge an annual fee of Rs.90/- from each village for access to all information, which is nominal and affordable. In the light of this the present study has been focused)

An attempt has been made to study in (1) the relationship between farmers, librarians and village level workers in the adoption of agricultural practices, (2) the forms of different communication media such as print media, non – print media and personal contact, used as a source of information regarding agricultural practices, and (3) the personal and group contacts such as with village level workers, agricultural extension officers, and Kisan Melas, group discussion with friends, neighbors, relations etc.

ANALYSIS AND DISCUSSION

The data collected from the farmers through the questionnaire has been presented in three main headings:
- Personal Information
- Library Information
- Communication Media

1. Personal Information
Personal information of each farmer is collected to understand various factors like occupational background, size of land holding, educational level, farm training and its usefulness.

It is implied that the successful adoption of innovative ideas in farming depends upon the above mentioned factors. For instance, a person with a large land holding, good educational background would have a mental make-up better organized to seek information and make use of resources and services when compared with an individual with a small land holding, without education or any training in farming.

- **Occupational Background**
The sample population selected in this study consists of actual cultivators, but some farmers have undertaken other occupations in addition to cultivation.Table-1 reveals that out of the 1000 respondents 802 (80.2%) are engaged purely in farm activities. The remaining 198 (19.8%) have other occupation in addition to cultivation.

Table 1: Occupational background of the farmers

Zone	Agriculture No.	Agriculture %	Agriculture and Business No.	Agriculture and Business %	Agriculture and Labour No.	Agriculture and Labour %	Agriculture and Job No.	Agriculture and Job %
I	97	9.70	--	--	2	0.20	1	0.10
II	41	4.10	--	--	34	3.40	25	2.50
III	75	7.50	4	0.40	5	0.50	16	1.60
IV	97	9.70	--	--	3	0.30	---	---
V	62	6.20	11	1.10	21	2.10	6	0.60
VI	90	9.00	3	0.30	1	0.10	6	0.60
VII	81	8.10	5	0.50	12	1.20	2	0.20
VIII	95	9.50	1	0.10	2	0.20	2	0.20
IX	85	8.50	2	0.20	13	1.30	--	--
X	79	7.90	7	0.70	13	1.30	1	0.10
Total	802	80.20	33	3.30	106	10.60	59	5.90

- **Size of Land Holding of the Farmers**

Farmers categorized into 8 groups on the basis of size of their land holding. Table-2 show that 408 (40.8%) farmers own land of less than 5 acres, followed by 207 (20.7%) with 6 – 10 acres, 126 (12.6%) with 11 – 15 acres, 95 (9.5%) etc. This distribution reveals that a majority of the population are able to support their family with agriculture income. The remaining due to small holdings, might have taken up business or to work in others fields in order to supplement their income.

Table: 2 Size of land holding of the farmers

	Up to 5 acres No.	Up to 5 acres %	6 – 10 acres No.	6 – 10 acres %	11-15 acres No.	11-15 acres %	16-20 acres No.	16-20 acres %	21-25 acres No.	21-25 acres %	26-30 acres No.	26-30 acres %	31-35 acres No.	31-35 acres %	36 above No.	36 above %
Zone	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**	**No.**	**%**
I	19	1.90	34	3.40	20	2.00	10	1.00	4	0.40	2	0.20	6	0.60	5	0.50
II	22	2.20	22	2.20	16	1.60	21	2.10	2	0.20	9	0.90	7		1	0.10
III	11	1.10	14	1.40	13	1.30	23	2.30	12	1.20	12	1.20	6	0.60	9	0.90
IV	31	3.10	25	2.50	17	1.70	9	0.90	9	0.90	4	0.40	5	0.50	-	-
V	56	5.60	17	1.70	15	1.50	6	0.60	4	0.40	-	-	2	0.20	-	-
VI	67	6.70	22	2.20	4	0.40	2	0.20	3	0.30	1	0.10	-	-	1	0.10
VII	58	5.80	19	1.90	13	1.30	2	0.20	2	0.20	-	-	3	0.30	3	0.30
VIII	21	2.10	15	1.50	12	1.20	10	1.00	9	0.90	7	0.70	14	1.40	12	1.20
IX	40	4.00	25	2.50	16	1.60	11	1.10	-	-	5	0.50	3	0.30	-	-
X	83	8.30	14	1.40	-	-	1	0.10	-	-	2	0.20	-	-	-	-
Total	**408**	**40.80**	**207**	**20.70**	**126**	**12.60**	**95**	**9.50**	**45**	**4.50**	**42**	**4.20**	**46**	**4.60**	**31**	**3.10**

- **Educational Level of the Farmers**

Education is generally believed to have its effect on widening the mental horizon of a person and thereby prepare his to be responsive to new ideas. Table-3 show the educational level of the farmers in 7 categories, i.e. 928 (90.8%) of the population are literate and only 72 (7.2%) are illiterate. Among the literate farmers, 346 (34.6%) have studied up to the 7th standard, 298 (29.8%) up to SSLC, 103 (10.3%) up to PUC, 140 (14%) up to degree level and 16 (1.6%) have completed their Post Graduation, and 25 (2.5%) have other degrees.

Table: 3 Education Levels of the Farmers

Zone	Nil		Up to 7th		Upto S.S.L.C		Up to P.U.C.		Degree		P. G.		Others	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I	7	0.70	22	2.20	32	3.20	15	1.50	18	1.80	3	0.30	3	0.30
II	2	0.20	5	0.50	20	2.00	24	2.40	33	3.30	9	0.90	7	0.70
III	5	0.50	28	2.80	24	2.40	14	1.40	28	2.80	1	0.10	-	-
IV	7	0.70	45	4.50	36	3.60	4	0.40	8	0.80	-	-	-	-
V	2	0.20	48	4.80	27	2.70	15	1.50	8	0.80	-	-	-	-
VI	12	1.20	33	3.30	28	2.80	10	1.00	15	1.50	2	0.20	-	-
VII	5	0.50	37	3.70	45	4.50	2	0.20	6	0.60	-	-	5	0.50
VIII	3	0.30	41	4.10	36	3.60	4	0.40	11	1.10	-	-	5	0.50
IX	22	2.20	54	5.40	10	1.00	5	0.50	4	0.40	-	-	5	0.50
X	7	0.70	33	3.30	40	4.00	10	1.00	9	0.90	1	0.10	-	-
Total	**72**	**7.20**	**346**	**34.60**	**298**	**29.80**	**103**	**10.30**	**140**	**14.00**	**16**	**1.60**	**25**	**2.50**

2. **Library Information**

The information about the need for library, its facilities and services are collected from the farmer. The different types of libraries established in villages are: i) District Central Library, Branch Library ii) Mandal Library iii) Raja Rammohan Roy Library Foundation Centers and iv) Aided Library. On specific question about the collection of books on agriculture, 670 (72.20%) farmers are of the opinion that material available on agriculture in rural libraries is very negligible. Hence, due importance may be given to agricultural books and the rural libraries must have a need based collection.

3. **Communication Media**

Effective communication of farm information to the farmers is the key to socio-economic transformation of a nation, particularly when the bulk of population lives on farming. All – around development of agriculture is possible only with the adoption of advanced technology such as improved seeds, fertilizers, irrigation facilities and pesticides. These have been used with great success to raise agricultural production.

a) Soil Test

The soil test is one of our most valuable resources and directly influences the growth of a plant. Study reveals that 446 (44.6%) farmers got the soil tested. It is observed that only 53(11.88%) farmers received the information on social tests through the library.

b) Seeds

Agriculture production largely depends upon the quality of the seeds.

It is observed that 726 (72.6%) farmers are receiving the information through gramasevakas and none of the farmer received the information through the library.

c) Use of Fertilizers

Fertilizers play a vital in modern agricultural production the quickest way to increase production is to promote fertilizer use. Farmers who came to know about the use of fertilizers through gramasevakas are 521 (60.2%), remaining from other sources.

d) Irrigation Facility

The adoption of any innovative technology depends upon the availability of irrigation facility. Rains are uncertain and only a small percentage of the land in the state is under irrigation from different sources. Farmers stated that 479 (6.33%) they did not require for the use of irrigation facilities.

e) Agriculture Marketing

The production and marketing system are Siamese twins. Progress of agriculture needs an efficient marketing system which in turn tries to provide goods at reasonable prices to consumers and reasonable returns to farmers. Therefore, it is not enough to produce a crop it must be marketed well.

Study reveals that 541 (54.1%) farmers received the marketing information through radio and 468 (46.8%) through friends, news papers, television and libraries.

NEED FOR THE TELECOTTAGE

Above survey reveals that all the 20 villages of Dharwad district deprived of basic information for their daily life. ICT facilities still not reached to the rural mass. Hence there is need to establish telecottage system in these villages.

CONCEPTUAL BASE OF THE TELECOTTAGE

The telecottage trains people in rural areas to live and work in the information age, to find and use information to enhance their lives economically, socially and culturally. It will organize in how to give courses in, how to use computers and telecommunication equipments, how to search databases for information related to specific needs, and computer aided instruction in subject of interests to the individual learner. It provides the equipment and remains open long hours for the convenience of the public. It functions as a training center, library, data processing service bureau, communication center and a tele-shop. It is village meeting places where neighbors get together for informal

discussions or drop in to use the equipment. Telecottage have been established in many places. They differ in structure, governance, resources and specific needs of their communities[2,3].

Cooperation

It is a cooperative venture. It started with a meeting of local residents, representatives of government at all levels, educators, business people. It was financially supported by the national state and local government and there was participation of representatives in the design and establishment of the program. This participation and interest continues at policy levels. Business large and small, participate in the program, the trade unions followed the development of the program with the telecottage. The primary participants, however, are the local residents, people from all walks of life, who provide the policy and program direction.

Community Response to Local Problems

It represents a community response to a local problem. The energies of the many parties at interest were mobilized and coordinated in order to organize the service but it began and remain a local "grass – roots" project, operated by and for the local residents. It is community – centered, in that it identifies, needs and resources.

Present and Future Orientation

It is present and future orientation, evolutionary and developmental in approach. Although it began with a problem, a problem related to the past, to history, its focus became growth, development, enhancement of the quality of life for the individual and community[4,5,6,7].

Individual Initiative, Voluntary Participation

It requires individual initiative and encourages self – reliance. Participation in the training courses is voluntary, individuals' progress at their own pace. They participate freely in the governing and management committees. The program sensitizes them to the application of available information to their own business and how to access and adapt it to their own purpose. In the process it fosters an inclination toward self – direction, maintaining control over one's life, toward active participation in community affairs.

Communication

It enhances communication among people, interaction, and networking. Exchange information, learning and teaching as cooperative experiences, working together toward mutually accepted goals for mutual benefit are highlighted. If facilitates the social and cultural acceptance of information technology by demonstrating that it can be adapted to their own needs. It is learner – centered in its training practices. Learning by doing; doing interesting things that matter,; striving for competence are basic aspects for the program.

Perspectives on Education

The process and content of instructional programs have been studies in detail for hundreds of years and all over the world. The principles and conditions of learning, educational objectives, human abilities, teacher roles, motivation, knowledge retention

and transfer, measurement are but few of the themes. A few of the principles that relate to the telecottage approach to education and training are viz. Learning is lifelong. It does not begin and end with formal school attendance. The telecottage welcome children as warmly as retirees, and considers their interests with equal respect.
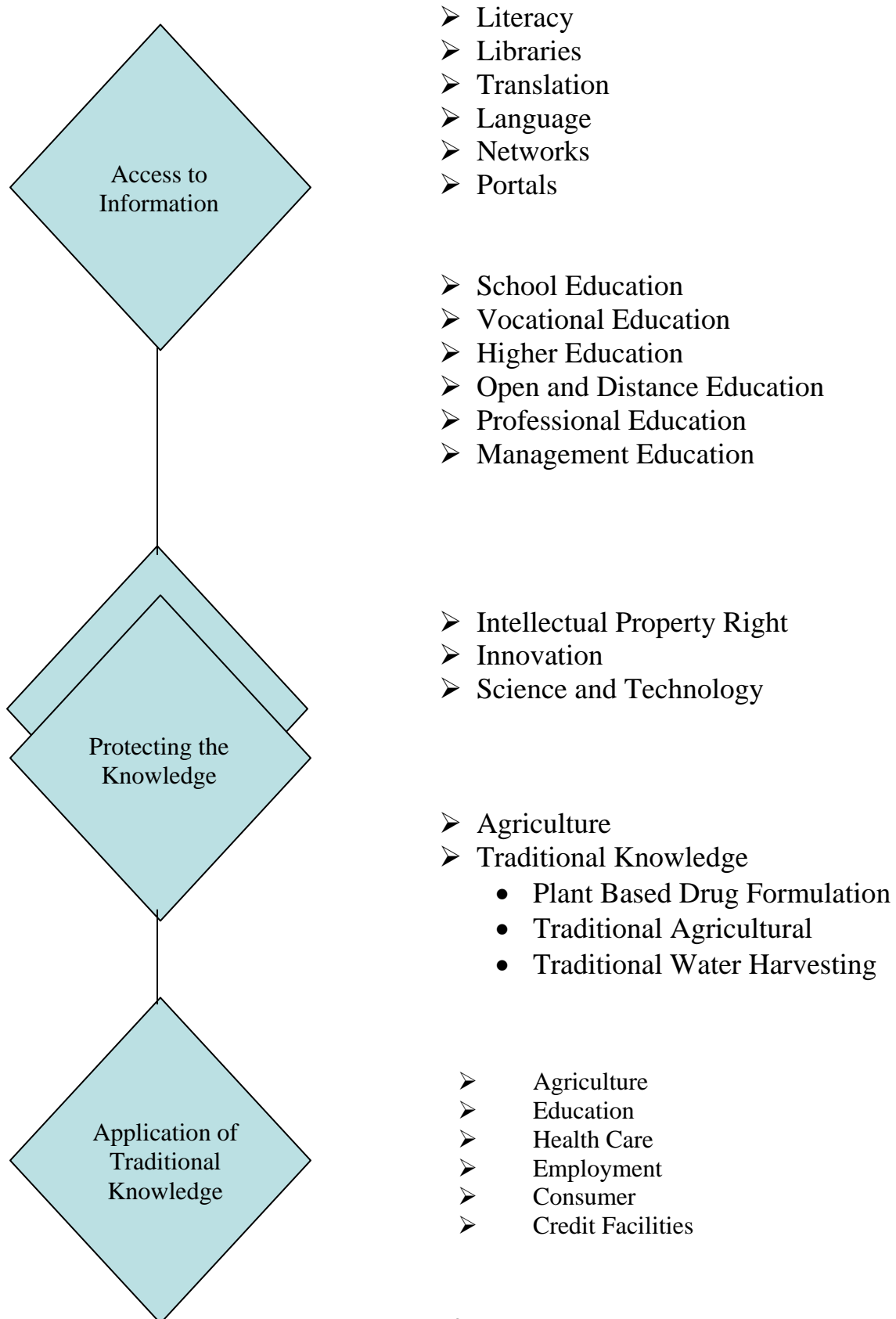
ICT AND GLOBALIZATION

The technology has proved to be a socially, acceptable, technically possible, and economically feasible approach to community development. In less than a decade it demonstrated the value of Information and Communication Technology (ICT) in the economic and social development of a community[9]. It has shared the results of its experience with many communities and it has been widely emulated. For many communities it has made the promise of the internet age a reality.

The world has become one of interdependent communities. The telecottage helps isolated communities to take their place in this world network of information, goods and services on an equal basis with urban centers.

PROPOSED MODEL FOR A TELECOTTAGE APPROACH

A telecottage model for Rural Karnataka has been developed based on needs, purpose, and scope of the common goals of the villages as below:

Access to Information

- Literacy
- Libraries
- Translation
- Language
- Networks
- Portals

- School Education
- Vocational Education
- Higher Education
- Open and Distance Education
- Professional Education
- Management Education

Protecting the Knowledge

- Intellectual Property Right
- Innovation
- Science and Technology

- Agriculture
- Traditional Knowledge
  - Plant Based Drug Formulation
  - Traditional Agricultural
  - Traditional Water Harvesting

Application of Traditional Knowledge

- Agriculture
- Education
- Health Care
- Employment
- Consumer
- Credit Facilities

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- ➢ Law
- ➢ Horticulture
- ➢ Bank Facilities
- ➢ Rural Development
- ➢ Medical Facilities
- ➢ Insurance
- ➢ Self Employment
- ➢ Dairy
- ➢ Food
- ➢ Commerce
- ➢ Social Welfare
- ➢ Entertainment
- ➢ Games/sports
- ➢ Child Care
- ➢ Energy

CONCLUSION

The value of this paper lays in its observation that isolated village communities of rural Karnataka remain outside the reach of traditional training program and are deprived of the ICT facilities. Community development specialists have recognized the economic and social value of access to and use of information resources Mandal Libraries which have been established for the purpose providing information resources have remained largely untapped. Thus in order to achieve the dream of realizing the global village requires that these resources be utilized to the optimum extent.

The factors relating to personal, occupational, educational and socio – economic situation of farmers have direct bearing on the knowledge of the availability and use of information in farm practice. Hence, it is concluded that such factors are important, and deserve to be observed in the information seeking behavior of farmers.

Rural India comprises of the varied types of population of all caste, color, sex and religion. The rural library serving such as complex mass should equip itself to cater the needs of the user community; in fact this should act as a community information center. Now libraries, more particularly rural libraries are considered as multi media centers. They are gaining momentum as the meeting of places of all media. Literate, illiterates and even the semi – illiterate can derive benefits from this center to the best of his/her ability and satisfaction.

It is the hope of all the rural library system should be revitalized to feed the millions of farmer to make use of the available information which is a key to their progress and economic development. The dictum "drowning in information but starving for knowledge" should be changed immediately. This lies in the development of knowledge distribution center at the rural areas.

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