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STANFORD UNIVERSITY

Institute for Communication Research

211(d) Annual Report

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Grant title: A grant to strengthen competence in communication as related to education and human resource development in less developed countries.

Grantee: Board of Trustees, Leland Stanford Junior University

Grant Program Director: Lyle M. Nelson, Chairman, Department of Communication

AID Sponsoring Technical Office: TA/EHR

Statistical Summary:

|                               |                                      |
|-------------------------------|--------------------------------------|
| Period of grant:              | September 1, 1973 to August 31, 1978 |
| Amount of grant:              | \$1,000,000                          |
| Expenditures for report year: | \$231,086                            |
| Anticipated for next year:    | \$225,754                            |

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## A. NARRATIVE SUMMARY

The accomplishments of Stanford University in the third year of its 211(d) grant are as follows.

### Objective 1 -- Education and Training

The doctoral-level program in the grant area was continued with the recruitment of two new students. Seven new students joined the two-year M.A. program in communication and social change. Eight doctoral and twelve master's students, previously enrolled in 1974-75, continued their programs this year. Nine university courses were offered by grant-supported staff during the year.

### Objective 2 -- Research

The field research projects in Guatemala and the Ivory Coast were funded by separate contracts with AID during the grant year, and work continued in both. Further studies in Nepal moved toward the possibilities of a project there, with field work opportunities. Several other research possibilities were explored in Asia and Latin America. Forty-six research papers, books, and monographs were produced and are listed in Appendix A.

### Objective 3 -- Consultation and Linkages

Consultation missions by faculty and staff to nations in Asia, Africa, and Latin America were undertaken in response to requests from less developed countries and international agencies. A major international conference on communication planning was hosted by the Institute, and brought together over one hundred decision-makers and scholars from over thirty countries. This meeting created and renewed linkages with many persons in the development communication field,

and allowed them to visit the Institute and observe its facilities. A smaller conference focussed on radio and development provided further strengthening of Institute linkages as well, especially from other 211(d) institutions. Many individuals from Asia, Africa, and Latin America also made contact with Stanford University through visits during the grant year. Listings of all these persons--those who attended conferences here and those who visited more briefly--are included later in this report.

## B. DETAILED REPORT

### 1. General Background and Description of the Problem:

#### Newer Perspectives on Communication and Development

In the early 1960's optimism and expectations were running high as to how communication might further development in Latin America, Africa, and Asia. Radio effectively penetrated into the more remote areas of developing countries, and it along with other types of communication media demonstrated a potential for helping such nations to reach their development goals. Some researchers referred to the effectiveness of the media in the development process as "magic multipliers."

Communication scholars then thought they knew what development was, how to measure it, and what caused it. Influential books on communication and development were widely read in the early 1960's. Scholars were attracted to study development problems in education, agriculture, politics, and health/family planning. A strong impetus was given to cross-cultural and comparative research in the field of human communication.

Now, in 1976, we take a reflective look. Uses of the mass media have indeed made significant inroads over the past decade. New communication technology, such as broadcasting satellites, has arrived. Government officials in most developing countries have sought to utilize mass communication for development purposes.

But little real development has occurred when measured by just about any standard. The disappointing performance of national development programs, based on the dominant paradigm of economic growth, led to various alternative conceptions of the role of communication in development, and, generally, to a questioning of just what development is.

Until about 1970, the rate of national development was usually indexed as the percentage increase in the gross national product (or per capita income) per year. Development agencies mainly pursued the goal of national economic growth, by promoting industrialization and urbanization. There was little concern for equity in the distribution of the socio-economic benefits of development; at best it was hoped that such benefits would "trickle-down" from the more elite segments to the weaker sections of the population.

This dominant paradigm of development began to shift about 1970. Thereafter, greater equality, as in the distribution of information and socio-economic benefits, became a major goal of most national development programs and of most bi-national and international development agencies. This new emphasis in development led to the realization that villagers and urban poor should be the priority audience for development programs, and, more generally,

the role of the media in formal and in nonformal schooling. Contributions of mass media to raising expectations and creating an attitudinal climate for modernization also have been studied.

But little attention has been given to how the mass media can foster mass mobilization for development purposes, to how the audience can control the media institutions through feedback, or to the role of the media in narrowing (or at least in not widening) the gap between the socio-economically advantaged and disadvantaged segments of the total audience.

The last issue points to the increasing attention by communication researchers on the distribution of information within a society. Mass media communication campaigns for development usually have their greatest effects on the more advantaged segments (for example, the literate, higher-income, and more urban), thus widening the communication effects gap between the advantaged and the disadvantaged. This communication effects gap need not necessarily occur if precautions are taken to avoid it, such as designing the message to appeal to the particular needs and interests of the disadvantaged.

Research and teaching activities in the Institute for Communication Research, supported in part by the 211(d) program, reflect this shift in conceptions of what development is, and of communication's role in development.

Growing concern with equality issues in development leads to our emphasis upon radio as the mass medium that especially reaches villagers and urban poor in Latin America, Africa, and Asia. However, the 211(d) program also recognizes that "larger" communication

technology can make a contribution toward the development goals of certain nations. For example, during the past year certain staff members visited SITE (Satellite Instructional Television Experiment) in India to help determine what lessons could be learned for policy-makers in other nations. Although satellite television is extremely expensive for most nations, it may offer the potential of speeding up the transfer of information to low-income village audiences.

In the year ahead, Institute staff will be exploring the potential contributions of a variety of communication technologies in developing countries, especially in relation to the recent interest in this topic by national governments in Latin America, Africa, and Asia.

The recent changes in academic and programmatic conceptions of development and of the role of communication development provide a background for the 211(d)-sponsored work of the Institute for Communication Research.

## 2. Purpose of the Grant

To strengthen, mobilize, and focus an institutional response capability at Stanford University dealing with low-cost use of communication technologies designed to help satisfy the information needs related to the quality of life of the majority of people in developing nations. Specifically, the main activities conducted under the Stanford University program in communication and development reflect the assumptions (1) that the primary audience for 211(d) grant efforts consists of villagers in the poorer developing nations,

(2) that the message content should be concerned with various types of development content (e.g., education, health, agriculture, etc.), (3) that we are seeking improved cost-effective alternatives of mass media and interpersonal communication, and (4) that we include in our scope of activities both formal and nonformal education, but with great attention to nonformal.

End of project status indicators:

1. That Stanford University be established and recognized as a center of excellence for the study of the application of communication technologies to the development problems of developing nations.
2. That a fully funded, ongoing faculty position be devoted to the field of international development communication, and that the ability be created to continue to strengthen a core group of scholars dedicated to future work in this field.
3. That there be a continuing provision of educational opportunity for students and professionals from developing countries.
4. That an ability exists to have continuous and significant involvement in efforts to analyze and help in the solutions of development problems for developing countries.

### 3. Objectives of the Grant

A. The objectives restated are:

1. To create an increased capacity and a wider range of options for education and training, both at Stanford University and in the field.
2. To create an increased capacity to conduct research and extend the existing knowledge base with regard to:

- (i) Use of communication media in out-of-school education and rural development information systems
  - (ii) Evaluation methodology
  - (iii) Synthesis of knowledge concerning media use in formal schools
  - (iv) Telecommunications policy planning
3. To create increased capacity to participate with developing countries and other institutions in the areas of:
- (i) Problem identification and analysis
  - (ii) Program/project design
  - (iii) Project operations in:
    - (a) Education and training
    - (b) Research/formative evaluation
  - (iv) Evaluation
  - (v) Collection and dissemination of information with particular regard to the use of communication media in:
    - (a) Non-formal education, particularly rural development information systems
    - (b) Formal education
    - (c) Telecommunication planning

#### B. Review of Objectives

This list of objectives reflects a reworking of principal objectives as stated in the grant document so that they would be in the form of a logical framework. Since the development of a logical framework in 1974 by AID and Stanford University personnel, there has been little change in emphasis among the

grant objectives. In fact, the substance of the objectives remains largely unchanged from the grant document itself.

### C. Review of Critical Assumptions

The critical assumptions which underlie the achievement of the grant objectives are:

1. That lower-cost communication media and designs for their cost-effective use will provide solutions for education and rural development information problems in developing countries.
2. That developing nations will recognize Stanford University as a center of excellence in the study and planning of this kind of technology and invite collaboration on problem study and solution.
3. That funding for field work for faculty and students will be available from developing countries and other sources.
4. That capable students from developing countries at the Ph.D. and M.A. levels will be attracted to Stanford University and that trainee support from a variety of different sources will be forthcoming.
5. That a spirit of collaboration and mutual respect be fostered in Stanford University's network of institutional relationships so that such linkages will be strengthened and extended.
6. That Stanford University will continue to support the capacity described under the objectives on training, research, and linkage/collaboration after the expiration of the grant.

C. ACCOMPLISHMENTS

1. An increased capacity and a wider range of options for education and training, both at Stanford and in the field.

(a) Narrative description and general output

The underlying premise of the training activities sponsored by Stanford University and supported through the grant is that there continues to be a critical shortage of trained people who are able to contribute to the design, evaluation, and administration of development projects incorporating one or more communication media. Stanford University is attempting to expand and upgrade professionals working in this field through various training mechanisms, both at the university and overseas.

Formal, degree-based training at Stanford University includes programs at the M.A. and Ph.D. level. The focus is on communication theory and research methods applied to development problems, with the main emphasis on practical policy issues and field research techniques relevant to communication strategies aimed at unschooled and predominantly rural populations. Both the M.A. and the Ph.D. programs encourage students to pursue areas of special interest and competence related to the development needs of their countries such as: Economics, education, food research, and management.

Stanford expects to continue its M.A. and Ph.D. programs throughout the life of the grant, although some reduction in numbers may be required as funding is reduced during the last two years. By the end of the grant, it is expected that most graduates will be occupying research and/or administrative positions in their own

countries that are directly related to the goals of the grant and to the training they received at the university.

In addition to the graduate training programs outlined above, Stanford University faculty and staff have also participated in various short courses and seminars off-campus. These courses and seminars have usually concentrated on development problems or projects in specific countries, and have customarily involved higher-level policy-makers and researchers. For purposes of achieving a more direct impact at lower cost, such shorter-term training activities have customarily been held in Third World countries.

(b) Targets for the reporting year

Training targets for the 1975-76 year were stated in the "Second Annual Report" as follows:

\* Provide at least partial financial support for at least 12 of 21 M.A. students in graduate training who are specializing in development communication, and to 8 of the 13 Ph.D. students, during the 1975-76 academic year.

\* Provide minimum facilities to three post-doctoral fellows interested in communication and development. All bring their own support.

\* Offer at least 8 graduate courses directly relevant to 211(d) goals in the Institute, reaching about 150 enrollments, with about one-third of those from outside the Institute.

\* Faculty, staff, and advanced graduate students are available to provide limited (one to four weeks), short-term training.

(c) Accomplishments, accumulative and for the reporting year

In the past year, there were nine Ph.D. and twenty-one M.A. students enrolled in the International Communication program and, of these 30, twenty-two were supported at least in part by grant funds. This enrollment, which does not include students from other university departments who enroll in international communication courses, represents a five-fold increase over the average enrollment level that existed prior to the grant.

Seven of the original ten M.A. students recruited for the program in 1974-75 have successfully completed all the requirements for their degrees. Of the seven, four have returned to their home countries, two have been admitted to Stanford University's doctoral program and one is doing research in the U.S. pending completion of her husband's doctoral work in engineering. A majority of the eleven students admitted to the M.A. program in the second year (1975-76) have returned to their home countries where they are conducting communication field research on a variety of development projects. Finally, seven new M.A. students have been recruited for the coming year: Two from the Ivory Coast and one each from Ecuador, Brazil, Philippines, Kenya, and the U.S.

Of the ten Ph.D. students associated with the International Communication program, seven received some support from the grant. All but one of these students spent the year completing course requirements. The remaining student began his dissertation research as part of the field evaluation currently being conducted in Guatemala on communication and adult education activities.

A total of nine graduate-level courses were taught by program personnel in the past year. All but two of these courses were directly related to goals of the grant and designed specifically for students in the program. The international course offerings included communication theory, research and evaluation methods, and the diffusion of innovations, as well as special topics related to the applied use of communication technology in development. All told, these courses enrolled a total of 175 students. Table 1 summarizes the enrollment breakdown.

Field research experience continued to be an important component of the M.A. and Ph.D. programs. As mentioned above, one advanced doctoral student conducted fieldwork on adult education in rural Guatemala, while thirteen M.A. students worked on various projects in their home countries. In the judgment of the program's leaders, field training (whether in the U.S. or abroad) is an indispensable complement to classroom work because it demands that students adjust their theoretical training to the needs and constraints of grassroots development programs.

Two week-long seminars were conducted overseas in the past year. McAnany, Hornik, and O'Sullivan conducted a training seminar on delivery systems in Guatemala; Doug Solomon led a seminar on the diffusion of innovations sponsored by the Centro Interamericano de Estudios Superiores para Periodismo en America Latina (CIESPAL) in Quito, Ecuador. Stanford University expects to continue participating in short-term, regional training activities of this kind; it is expected that funding for them will continue to come predominantly from non-grant sources.

TABLE 1  
GRANT SPONSORED GRADUATE COURSES DURING THE  
1975-1976 ACADEMIC YEAR

| Course*         | Description                          | Foreign students  |       | U.S. students |       | Total |
|-----------------|--------------------------------------|-------------------|-------|---------------|-------|-------|
|                 |                                      | Comm.             | other | Comm.         | other |       |
| 190             | International Communication          | 6                 | 2     | 8             | 17    | 33    |
| 207             | Intro. to Res. Methods               | 9                 | 6     | 2             | 2     | 19    |
| 219             | Res. Methods II                      | 1                 | 2     | 8             | 2     | 13    |
| 238             | Mass Media Eff. on Adults            | 2                 | 0     | 11            | 0     | 13    |
| 255             | Comm. Theory and Social Change       | 11                | 2     | 2             | 3     | 18    |
| 256             | Comm. in Social & Econ. Dev.         | 11                | 4     | 10            | 5     | 30    |
| 257             | Eval. Res. Methods                   | 9                 | 13    | 3             | 0     | 25    |
| 267             | Comm. Soc. Theory                    | 4                 | 2     | 2             | 2     | 10    |
| 271             | Seminars and Special Topics in Comm. | 1                 | 2     | 8             | 3     | 14    |
| <hr/>           |                                      | <hr/>             |       | <hr/>         |       | <hr/> |
| 9               |                                      | 54                | 33    | 54            | 34    | 175   |
| <hr/>           |                                      | <hr/>             |       | <hr/>         |       | <hr/> |
| Comm. students: | 108                                  | Foreign students: | 87    |               |       |       |
| other           | : 67                                 | U.S. students     | : 88  |               |       |       |
| Totals          | 175                                  |                   |       |               |       | 175   |

\*In addition to these courses, 211(d) faculty directed 50 individual-work courses for graduate students during the grant year.

(d) Total expenditures (best estimate):

|                                 | <u>Reporting year</u> | <u>Accumulative (1973-76)</u> |
|---------------------------------|-----------------------|-------------------------------|
| 1. Grant funds                  | \$108,000             | \$247,094                     |
| 2. University and other sources | <u>31,900</u>         | <u>57,900</u>                 |
| Totals                          | \$139,900             | \$304,994                     |

2. An increased capacity to do research and extend the knowledge base with regard to: (i) use of media in out-of-school education and rural development information systems, (ii) evaluation methodology, (iii) synthesis of knowledge concerning media use in formal schools, and (iv) telecommunications policy planning.

(a) Objectives

The greatest number of tasks we undertake bear in one way or another on our central research goals of describing (a) how mass media and other communication channels are used in existing out-of-school education projects, (b) exploring the limits of such projects vis-a-vis overall development goals, (c) estimating how effective such projects are for what content and for which audiences, (d) defining what insights and generalizations such evidence provide for future projects, and (e) understanding what the process of successful acceptance, project design, and implementation of such projects entail. Whether we are undertaking planning research in Guatemala, evaluation in the Ivory Coast, feasibility studies in Nepal or Pakistan, or brief visits with project leaders in Costa Rica, Honduras, India, or elsewhere, a major item on our long-term agenda remains constant. From each new perspective, we seek to understand the role for mass media and other communication channels in bringing information and education to rural out-of-school audiences.

Evaluation methodology, and synthesis of knowledge concerning media use in formal schools, are minor emphases three years into the grant. We remain concerned with the development of appropriate evaluation strategies for mass media-based projects. In particular, we concentrate on the definition of low-cost research designs that will provide acceptably valid information in sufficient time to be of help in decision-making about communication in development.

Also, the first three years of the grant featured some re-analysis, reworking, and rewriting of data gathered earlier concerning mass media in formal education; now the gradual shift in focus away from formal education to out-of-school uses of media is largely complete. While consultancy and some incidental travel may concern the applications of mass communication to formal education programs, most of our research efforts now concentrate on the use of mass media communication for out-of-school purposes.

Telecommunications policy planning research, while a major concern of other members of the Institute staff, is not now being supported under the 211(d) grant nor is it a central concern of the faculty directly supported by the grant. This shift, while giving due respect to the area's intrinsic importance, recognizes that telecommunications policy is tangential to the main thrust of the grant, and that serious work in that field would drain too much of our scarce resources.

(b) Output

Research capacity is measured by written output: Books, state-of-the-art papers, research reports, and other documents based

on field research, case studies, evaluations, surveys, library research, and analyses of existing data. No professional research organization can describe itself as having research capacity and as able to extend the knowledge base if it is not producing written output to store and transmit the knowledge that it produces. Thus the first and most measurable output of research capacity is our written output from grant activities.

However, written output can be misleading. The quantity and quality of research does not relate perfectly with the quantity of written output. Field researchers have less time than arm-chair theorists to author lengthy speculative papers. Field researchers, having the constant opportunity to check their speculations against actual experience, are less ready to declare "truth." The complexity of field operations makes researchers somewhat chary of generalization. However when generalizations come from that crucible, they are far more likely to be useful and applicable to real situations.

Research capacity should therefore be measured in other ways than just in written publications. Capacity is demonstrated by acceptance and accomplishment of major research projects. Development project managers (in both Guatemala and the Ivory Coast, which include AID field personnel and host-country project staff) know whether research capacity has met the demands of field conditions.

Research capacity is also indicated by reputation. When capacity exists in an institution, people in need of research assistance come to that institution. Whether for advice on a

research design, comments on a report or theoretical paper, participation in field seminars on research topics, longer-term consulting on a research project, or operational supervision of an evaluation, the individuals who make up a capable research institution are in demand. Thus the institutional log of activities constitutes evidence of capacity.

(c) Targets for the reporting year (briefly stated)

- i. "Begin or continue research in two major field projects...Ivory Coast...Guatemala."
- ii. "Publication of manuscripts...Educational Reform with Television: The El Salvador Experience...case studies and synthetic chapters about the role of radio for development...seven published articles in books and journals...five to six reports published by the Institute..."
- iii. "M.A. theses (eight) and Ph.D. theses (two)."
- iv. "...Conference for policy-makers and project directors of communication projects in developing countries."
- v. "Edit a special (journal) issue on 'Communication and Development: Critical Perspectives'..."
- vi. "...Collaboration..in research on diffusion networks for family planning in Korean villages."
- vii. "...Conduct a faculty seminar..to explore new conceptions of the role of mass communications in development."
- viii. "...Host a 'mini-conference' on radio and rural development."
- ix. "...reanalyze data on the diffusion of innovations among 10,000 villagers in Brazil, Nigeria, and India."

(d) Accomplishments

Most of the targets described under (b) above have been reached. Each will be reviewed here in some detail.

i. Major Research Projects

During the 1975-76 grant year, formal contracts were signed for two major field projects--although operations had been initiated under temporary funding in the previous grant year. In both the Ivory Coast and in Guatemala, the Institute has been working under AID funding through subcontracts with the Academy for Educational Development.

Ivory Coast. Now beginning its sixth year of operations, the Ivory Coast has one of the largest instructional television systems (ITV) for the schooling of primary grades in the Third World. This year it will reach about 325,000 students and cover approximately three-quarters of all primary schools in the country.

Since 1974 the Ministry of Education has developed a series of television programs designed primarily for the rural illiterate adult population. These weekly or semi-weekly programs deal with subjects such as pure water, agricultural cooperatives, improved agricultural practices, and rural savings cooperatives. The broadcasts are usually shown in rural primary schools, where adults congregate for viewing and for discussion afterwards.

The Institute, through AID funding, is collaborating with the Evaluation Unit of the Ivorian Ministry of Education to evaluate (1) the cost-effectiveness of the primary ITV system, its production, and alternatives for the secondary system in the Ivory Coast; (2) an administrative history of the first two years of the ITV broadcasts;

(3) the impact of a televised series on rural voter systems; (4) a four-village study of the TV-animation system; and (5) the role and limits of information for rural development.

Further research will involve cost-effectiveness and the benefit-cost of both formal and nonformal systems, and evaluation of the rural TV discussion groups. A final summary report is expected in December, 1977. Members of the Institute collaborating in the field work are Emile McAnany, Frans Lenglet, and Annie Benveniste; Robert Hornik and Peter Spain are providing technical advice.

Guatemala. The Guatemalan government, first through its National Secretariat for Economic Planning, Human Resources Sector, and subsequently through the National Board for Out-of-school Education, has planned and taken the first steps toward implementing a major project in out-of-school education. It is designed to reach rural adults with programs of information and education responding to their needs. The project seeks to maximize the effectiveness of a large number of already operating rural education programs, by recruiting a staff of monitors to organize learning activities at the village level and by supplementing existing programs with a delivery system built around radio and other media.

Stanford University's help was requested in the early stages of project planning; in that phase our role was to help Guatemalan staff in researching the needs, characteristics, and interests of the target population. The planning research was to result in specific recommendations for the design of the project delivery system, as well as influence the choice of content objectives.

Beginning in the summer of 1975, under UNICEF funding, and since November of 1975 under an AID contract through the Academy for Educational Development, Stanford has maintained a continuous field presence in Guatemala, as well as support staff at the Institute involved in this project. Along with the Guatemalan staff, we have moved through a number of research/planning phases. That movement has not been without its obstacles.

Noreene Janus and Jerry O'Sullivan, Stanford's field representatives in the fall of 1975, collaborated with Guatemalan counterparts in a review of a number of non-formal educational projects operating previously in rural Guatemala. They summarized those experiences in a report published in October, 1975.

In the next phase, the evaluation team undertook a survey of 600 randomly-selected men and women from the villages where the new project was to begin. Interviews in three languages produced useful information on agricultural practices, on other income-producing activity, on education, on health practice, on sanitation, on perceptual ability, on mobility, on radio usage, on literacy, on age, on sex, on marital status, on food habits, and on interest in additional education--among other topics. Then teams in Guatemala and at Stanford University undertook the reduction of these data, and its analysis--so as to provide project staff with usable recommendations.

This basic report was published in March, 1976. It emphasized the generally widespread interest in additional education, the strong interest in both literacy and agricultural education, and the

importance of socio-economic variables in discriminating levels of interest among the female respondents. It documented the nature of agricultural practices (choice of crops, cultivation, harvesting practices, productivity, and selling activities) and its variation among the individuals surveyed.

In July, 1976, to initiate the third stage of research, Stanford personnel including principal investigators McAnany and Hornik, research assistant Eduardo Contreras, and O'Sullivan (field research director since January, 1976, when Janus returned to Stanford University) led a week-long seminar with the newly-recruited Guatemalan staff charged with the operation of the project. They explored alternative ways the project might operate and in particular how its delivery system would function. After this, O'Sullivan and the Guatemalan field staff began follow-up visits to 39 development agencies to evaluate the feasibility of a delivery system which required cooperation from the extension staffs of those agencies. The results of the seminar and the follow-up investigation are reported in a document published in August, 1976.

The project staff is now in the final phases of planning before a scheduled field implementation date of January, 1977. Eduardo Contreras will soon go to Guatemala as a second full-time member of the Stanford field research team.

#### ii. Publication of Manuscripts

As scheduled, Stanford University Press published Mayo, Hornik, and McAnany's book on the El Salvador Educational Television Project. While the full results have been available from the Institute for

several years (and in brief format from other sources), this publication provides a wider audience with its first in-depth exposure to this project.

Arrangements have been made with Sage Publications for the publication of a book encompassing the synthetic reviews by Dean Jamison, McAnany, and Spain concerning the present state of the use of radio for development. These reviews grew from a series of case studies whose writing was sponsored by the World Bank. The case studies themselves will be available from the Institute for Communication Research, and from the World Bank, and be distributed by Sage Publications. The radio book will be published as one of series of books concerning communication and development including Wilbur Schramm's Big Media, Little Media, and the Jamison, Steven Klees, and Stuart Wells book detailing cost-analysis methodology and examples for educational technology projects. Sage Publications also will republish in book form the special issue of Communication Research: An International Quarterly edited by Rogers in 1976 (This activity is described below).

Articles and reports were published and papers were delivered by 211(d)-supported faculty on a number of topics during the third year of the grant. For a full listing, see Appendix A. McAnany and Hornik wrote papers concerning the methodology of evaluation. McAnany considered the rate of progress of evaluation methodology (to be published in The Bulletin of Educational Research) and Hornik described a number of low-cost, sometimes useful evaluation designs for distance-learning projects for Educational Broadcasting International. Mayo, McAnany, and Klees saw their summary of the Mexican Telesecundaria

project published in a special issue of Instructional Science devoted to educational technology. Hornik's classroom-based analysis of the effects of background variables and instructional television on learning in El Salvador appeared in the same issue.

McAnany's review of the main issues involved in the control of international mass media program flows appeared in the September-October, 1976 issue of Society. Rogers and others have prepared an article based on the results of a retest of Cancian's theory about agricultural innovation and social status, using Indian data, for the American Sociological Review. Rogers described the initiation of the SITE project in K.A. Polcyn's edited book The Educational Uses of Broadcast Satellites: Status, Applications, Costs and Issues. In Thomas Labelle's edited book, Educational Alternatives in Latin America: Social Change and Social Stratifications, Rogers and S. Danziger argued that little media are most likely to produce an equitable distribution of information in developing nations. In a number of other articles, Rogers has argued for rethinking traditional development paradigms and the role of mass communication within them.

Rogers, with Doug Solomon, summarized the role of traditional systems like birth attendants in diffusing family planning information for Studies in Family Planning. In a number of publications, he has argued for the application of network analysis to the diffusion of innovations (in Lerner and Schramm's Communication and Change: Ten Years After), for its specific use in family planning diffusion (in P. Holland and S. Leinhardt's (eds.) Social Networks: Surveys, Advances, and Commentaries), and has applied it to a set of Korean village data.

In other monographs, Rogers proposed new methods for measuring perceived attributes of technological innovations--in particular, contraceptives--and has argued the pros and cons on extending the U.S. agricultural extension model to developing countries. With Rekha Agarwala-Rogers, he edited Evaluation Research on Family Planning Communications, which synthesized existing evaluation research on family planning communication and proposed new directions.

iii. M.A. and Ph.D. Theses

Four M.A. research projects were completed and four more are in the final write-up stage. Joaquin Sanchez evaluated a television-based teacher-training program in Colombia, which he had led for a number of years. He carried out both a mail survey of registered students to estimate continuing enrollment, and a field experiment to estimate the potential effects of the program on attitudes and learning.

Maria Isabel Valdes completed the first wave of a consumer-satisfaction survey for the San Mateo County Health Department. She gathered interview data from 100 users of both a hospital-based and an experimental community-based outpatient clinic in order to understand the factors which influenced clinic selection.

Rosita Valencia completed her M.A. thesis on a field experiment she organized in the Philippines, where she examined differences in learning among farmers exposed to an agricultural lecture delivered by an extension worker, and similar message content delivered via a slidetape presentation.

Jeffrey Yu conducted a case study of Hong Kong's "Keep Hong Kong Clean" Campaign, which used such interventions as mass media

advertising, legal restrictions, and mobilization of community organization to change sanitation behavior. His data were gathered from interviews with project leaders, social indicator data, and a survey of chairpersons of community organizations.

Tatiana Galvan is completing the write-up of a study of newspaper coverage in Mexico. Nanthawan Suchato is analyzing her data on the relation of violent television to violent attitudes and behavior among school children in Thailand. Nasrin Ameri is analyzing Iranian data with regard to mass-media usage among the Turkish minority. Annie Benveniste will shortly complete her write-up of village studies in the Ivory Coast (described previously).

No Ph.D. dissertations were completed under 211(d) funding in the past year. However, Dennis Foote completed his doctorate on the ATS-6 satellite experiments in Alaska, under separate funding.

iv. Policy Makers' Conference

This meeting is described below, in section C.3.c.4.

v. Editing of Journal Issue

Everett Rogers edited, with the assistance of Douglas Solomon, a special issue of Communication Research (volume 3, number 2, April, 1976), entitled "Communication and Development: Critical Perspectives." The articles in this issue assess the applicability of U.S.-originated communication models to research and practice, focussing on how communication contributes--or at least could contribute--to solving development questions. This issue is currently being republished by Sage Publications in book form.

vi. Family-Planning Diffusion Networks

Everett Rogers, with the assistance of Noreene Janus, William Richards, and others in the Institute, is investigating the role of interpersonal networks and mothers' clubs in the diffusion of family planning innovations in Korean villages, using data from a 1973 survey of 1,042 married women of reproductive age in 25 villages. This analysis seeks to determine the role of local self-development groups in villages, and how they might be assisted by mass communication, especially radio.

vii. Faculty Seminar

The fall-term faculty seminar promised an opportunity to consider in depth the implications of changing development theories for our own work in communication. Sessions were held with Alex Inkeles on modernization theory, with Bruce Lusignan and Bruce Johnston on technology transfer, and with Budd Hall on mass mobilization for development, but the full potential of the seminar was not realized. Travel conflicts and other scheduling difficulties limited the number of sessions that could be held.

viii. Mini-conference on radio

This meeting is described below, in section C.3.c.4.

ix. Reanalyze diffusion surveys

No major work was undertaken during the 1975-76 reporting year, but it is planned for 1976-77.

(d) Total expenditures (estimated):

|                    | <u>Reporting Year</u> | <u>Accumulative (1973-76)</u> |
|--------------------|-----------------------|-------------------------------|
| 1. Grant funds     | \$ 98,000             | \$258,650                     |
| 2. Non-grant funds | <u>71,000</u>         | <u>95,000</u>                 |
| Totals             | \$169,000             | \$353,650                     |

3. Increased capacity to participate with developing countries in the areas of (i) problem identification and analysis, (ii) program/project design, (iii) project operations (including education and training as well as research and formative evaluation), (iv) evaluation, and (v) collection and dissemination of information with regard to the topics listed in the previous objective.

(a) Narrative description of general output

Our efforts are designed to work with developing countries for the improvement of their communication services and the ultimate improvement of the quality of life of the people in these countries. The availability of faculty and staff for training (as described in an earlier section) and for direct in-country work has identified Stanford University, in the minds of those involved in communication-for-development, as a center for LDC-related communication effort. As a group involved in applied research, the faculty and staff try to keep a balanced perspective between field work and academic scholarship. The need for developing countries to improve their communication practice demand that involved scholars be able to develop theory to guide that practice. This continuing interplay between theory and practice is a principle dynamic for Stanford University personnel.

In the past year, two long-term research projects continued (Ivory Coast and Guatemala), several short-term consultations were completed (Nicaragua, Nepal, Costa Rica, Honduras, Pakistan, and India),

and contacts with dozens of foreign scholars and institutions were initiated. Visiting scholars in residence at Stanford University were integrated into both the training and the research efforts of the faculty and staff. Finally, in the past summer, Stanford University (with added support from AID and the National Institute of Education) hosted a major international conference on planning and policy for communication in development.

Stanford University also maintained close contact with other institutions, both in the U.S. and elsewhere, to increase its own productivity and to assist the overall development effort. In addition to close collaboration with AID both in Washington and through its in-country missions, this network includes other universities--the University of California at Berkeley, Florida State University, Michigan State University, Indiana University, Cornell University--as well as the Academy for Educational Development, the East-West Communication Institute, the Educational Testing Service, the Ford Foundation, the Inter-American Foundation, and the Asia Foundation. The faculty and staff have worked along with international institutions (UNESCO, the British Council, UNCP, WHO, the World Bank, UNICEF), and with institutions in developing countries--CEE and ITESO in Mexico, Concorde in Honduras, ALER throughout Latin America, as well as with government agencies in Pakistan, Nepal, Nicaragua, Costa Rica, Guatemala, India, the Ivory Coast, and Honduras. Institutional collaboration continues to be sought for the purposes of research and other types of field work for the maximum understanding of what new knowledge is being developed, and for the utilization of research results.

(b) Targets for the reporting year

The work plan for the third year listed in the "Second Annual Report" the following tasks under this objective:

\* Stanford University personnel will respond to requests for consultation by developing countries and international agencies, such as the ones that are mentioned in this section (not included here are time commitments to the long-term research projects in Guatemala and the Ivory Coast).

\* As a follow-up to an original mission in 1974-75, a return consultation to Nepal has been scheduled. The purpose of this consultation will be to review the feasibility team's recommendations with Nepalese officials, and to develop, in conjunction with the USAID mission in Kathmandu, a possible radio project in teacher training.

\* To contribute recommendations about possible communication systems for rural education and development in Nicaragua and for nutrition in Costa Rica, as part of assessment teams looking at potential for development through improved information systems.

\* To participate in a planning team that will design a Development Communication Centre for the government of Pakistan. The Centre will coordinate the use of mass media, especially radio, to disseminate development messages to villagers who are organized into listening and discussion groups.

\* Stanford University will receive about 150 foreign visitors to acquaint them with its activities and other related activities of interest to communication within the whole university, and to, in turn, learn of activities elsewhere.

(c) Accomplishments

1. Consultations

During the third grant year there were six main areas of consultation by Stanford staff: Nepal, Pakistan, Costa Rica, India, Nicaragua, and Honduras.

a. Planning for a proposed national, radio-based, teacher retraining project continued in Nepal throughout the past year. This activity is an outgrowth of recommendations made by Institute members Robert Hornik and John Mayo and other members of the six-person Radio Feasibility Study team that visited Nepal in late 1974 under the auspices of UNICEF, the British Council and AID. Mayo returned to Kathmandu twice in the past year to work with Nepalese officials in the elaboration of a project plan. Coordinated hardware and software development as well as intensified collaboration between various Nepalese agencies will be essential if such a project is to emerge and function effectively in the future.

b. At the request of the government of Pakistan and AID, Everett Rogers and Dennis Foote served as advisors on the establishment of a Communication Development Centre in Pakistan, through trips in October, February, and June. The Centre will design, produce, and evaluate multi-media development messages for village audiences, so as to more closely coordinate development communication activities in agriculture, health, family planning, etc. The Centre's activities will be radio-centered, supplemented with print media.

c. Robert Hornik travelled to Costa Rica in November for the Costa Rican government and AID. Costa Rica is planning a major

rural nutrition project and is investigating ways to integrate the mass media into nutrition education efforts.

d. On July 31, 1976, India concluded its one year Satellite Instructional Television Experiment (SITE)--a project so great in vision, innovativeness, and administrative complexity that it has been hailed as one of the most important communications experiments in history. Throughout the year, development-oriented programs were beamed via NASA's Applied Technology Satellite (ATS-6) to 2,400 villages scattered throughout four regions of "clusters" encompassing some of India's most deprived rural areas. The programs served both school and adult audiences and were transmitted in a variety of local languages. The experiment was conceived and managed by the Indian Space Research Organization (ISRO) which, in addition to developing the reception equipment and software necessary for making the project possible, also sponsored a massive feedback and evaluation program. Preliminary research findings are expected from the Indian Government early next year.

In an effort to observe SITE firsthand and, where possible, to draw policy lessons for the U.S. and other nations that are likely to use satellites for development purposes in the near future, Institute members Dennis Foote and John Mayo joined Clifford Block (who was a visiting scholar at Stanford University during the past year) on an AID-sponsored visit to India in late July and August. The visit was designed to provide a basic description of SITE (including numbers of villages actually reached, program hours produced and other relevant facts) and to relate the perceptions of SITE managers in a variety of areas including the design and production of programs for diverse rural

audiences, the organization and training of production teams, the use of formative evaluation techniques, measurement of village level effects (including attendance, learning and participation), and a summary of major administrative and operational problems. The team plans to publish its observations in a report which should be available in November, 1976.

e. In September, 1976, Peter Spain planned to coordinate an AID-sponsored conference in Managua, Nicaragua on "The Use of Radio as an Instructional Tool in Primary School." The purpose of the conference was to study the Radio Mathematics Project, which is being carried out in nearby Masaya, Nicaragua. Included in the conference were fifteen radio producers from developing countries who shared their related experiences and became acquainted with similar project methods and results. Members of the conference also evaluated the practicality and feasibility of the Masaya project's methods and procedures. The project is funded by AID and directed by the Institute for Mathematical Studies in the Social Sciences at Stanford.

f. At the invitation of the host governments and AID, Peter Spain traveled to Nicaragua in September and October and to Honduras in March as a member of an education sector assessment team. Members of the team were to study how improvements can be made in rural education and, in particular, what media could do in the face of these needs. Honduras has shown great interest in developing radio as a means of educating its adults, especially those in rural areas.

## 2. Visiting scholars

Though not supported with 211(d) funds, several visiting scholars came to the Institute over the past year, to be associated

with the activities that 211(d) has made possible. Some stayed for the entire academic year, none for less than one quarter. These scholars came from varied backgrounds and included

-- Dr. Clifford H. Block, Education and Human Resources, Bureau of Technical Assistance, U.S. Agency for International Development.

-- Dr. Gummadi Apparao, Agricultural Research Institute, Trivandrum, India.

-- Dr. Juan Jose Coronado, Instituto Tecnológico y de Estudios Superiores del Occidente, Guadalajara, Mexico.

-- Dr. Robert Gillespie, Communication Specialist, Population Council, New York.

--Dr. Ijaz Chaudhry, Ministry of Education, Government of Pakistan, Islamabad.

-- Dr. Bjarne Ruby, Communications Research, Copenhagen, Denmark.

### 3. Foreign visitors

This section is covered under F.2 of this report.

### 4. Conferences

Stanford University staff attended the following conferences during the third grant year:

-- Emile McAnany and Dennis Foote attended the Open University Conference at Brighton, England in April. McAnany had been in England during the winter term at the Institute for Development Studies at the University of Sussex; Foote was returning from a consultation mission in Pakistan.

-- Everett Rogers presented a paper at the International Conference on Adult Education and Development in Dar es Salaam in June.

--John Mayo attended the April conference on communication policy and planning at the East-West Communication Institute in Honolulu.

-- Norcene Z. Janus attended the Tenth General Assembly and Conference of the International Association of Mass Communication Research (IAMCR) held in August in Leicester, England. Ms. Janus presented a paper, "Research on Sex-roles in the Mass Media: Toward a Critical Approach." She also took part in a UNESCO-sponsored seminar concerning research on women and mass media held at Leicester immediately following the IAMCR Conference.

The growing concern with equality issues in development leads to emphasis upon radio as the mass medium that especially reaches villagers and urban poor in Latin America, Africa, and Asia. An informal working conference on research on radio and development was hosted by the Institute in 1976, with eight invited guests plus participation by 32 Stanford University faculty and students. A list of the non-Stanford participants can be found in Appendix B.

A second working conference on the communication effects gap and development will be held in October, 1976.

International Conference on Communication Technology for Educational Planners

Widespread interest in development communication and specifically in educational planning prompted the Institute to host a week-long gathering of over one hundred participants representing thirty-

one countries to discuss "Communication Policy and Planning for Education and Development." The conference, held on the Stanford campus in July, 1976, was sponsored by AID and the National Institute of Education. A conference schedule and a list of non-Stanford participants constitutes Appendix C.

Participants were drawn from five occupational groups:

1. National planners who deal with education development, and who are concerned with the planning implications of the use of communication systems.
2. Directors of on-going projects that use one or more communication technologies. The projects ranged in scale: some were concerned with formal education, others with non-formal programs.
3. Researchers of major education technology projects.
4. Representatives from major development assistance agencies.
5. Development scholars.

An increasing number of Third World nations have been using various forms of communication media in their development efforts, especially in education, and there now exists a body of research and evaluation data, although this has been only partially codified and interpreted by researchers and made available to decision-makers. Furthermore, there has recently emerged a new set of policy, planning, research, and evaluation issues. These issues effect the wider application of communication technology to education and information development activities. They include:

- . . .Changes in goals and models of economic growth, with new emphasis on rural development and social equity;
- . . .Changes in the available equipment, including the broadcast satellite, audio and video cassettes, and the inexpensive radio receiver;
- . . .Changes in our knowledge of the importance of educational content and utilization infrastructure to formal, non-formal, and lifelong education and information services.

Two kinds of information can be distinguished therefore:

first, the experiences, good and bad, that other nations have actually had with programs that have utilized communication technology and, second, the technological options for communication that are already available or that will soon be developed, along with the probable costs of using these options. This information provided the conference focus.

The goals of the conference were (1) to improve participants' understanding of the policy questions relevant to the use of modern communication technology in the light of the rising demand for education and information services around the world; (2) to improve the quality of decision-making in planning the delivery of education and information services by improving participants' understanding of what research and evaluation have found; and (3) to define a research and evaluation agenda based on the common needs of policy-makers.

The program began with presentations and discussion on new concepts of development strategy, then moved on to the implications of these new concepts for communication planning. It then dealt

specifically with the role of communication in various educational strategies: two sessions were devoted to discussion of alternative media--when various media are appropriate--and the costs of alternative media systems. These presentations consisted of a principal address followed by discussion among all the participants, using the speaker and the panelists as points of reference.

The initial presentations were not country-specific; however, the last two days of the conference were devoted to six case-studies. Among these were the then concluding Satellite Instructional Television Experiment (SITE) in India, the Tanzanian radio campaigns, the health-care delivery satellite system in Alaska, the Kenyan radio programs for teacher-training, and education reforms that use television in Korea and El Salvador.

A report on the conference is forthcoming in the form of a collection of the papers presented, and a video tape of the major presentations to be produced by and made available through the Institute.

The role of the Institute in the planning and implementing of this conference required considerable preparation and coordination. These efforts resulted in a unique opportunity for leading education and communication specialists to share their experiences. While 211(d) funds did not support this conference, they did make the Institute capable to take on such a task--a kind of output from 211(d) funds that should be noted.

##### 5. Linkages

The institutional development of Stanford University's work in international communication has been heavily dependent upon the linkages

established with other institutions over the years. This work continued during the third grant year. Conferences, visits by others to Stanford University, phone calls, letters, reading others' publications, contact with others by faculty, staff, and students in their travels-- these are all ways that linkages are established or reinforced.

Following is a list of active linkages during the third grant year.

a. U.S. institutions: Academy for Educational Development, Washington, D.C.; Communication Center of the East-West Institute, Honolulu; Educational Testing Service, Princeton; Florida State University, 211(d); the Ford Foundation, New York; Institute for Mathematical Studies in the Social Sciences, Stanford; National Institute of Education, Washington, D.C.; South Florida University; University of California at Berkeley, 211(d); University of Indiana; University of Massachusetts, 211(d); University of Texas; the World Bank, Washington, D.C.

b. Overseas institutions: the Association of Latin American Radio Schools, Buenos Aires, Argentina; Radio Santa Maria, Santo Domingo, Dominican Republic; CIESPAL, Quito, Ecuador; University of Tampere, Finland; National Council for Economic Planning, Guatemala; UNICEF, Guatemala; ACORDE, Tegucigalpa, Honduras; Accion Cultural Popular Hondurena, Tegucigalpa, Honduras; the Satellite Instructional Television Experiment, India; Ministry of Education, Ivory Coast; Seoul National University and Yonsei University, Korea; Centro de Estudios Educativos, Mexico City; Instituto Tecnologico y de Estudios Superiores del Occidente, Guadalajara, Mexico; Ministry of Education, Nepal; Department of Mass Communication, University of Lagos, Nigeria;

Ministry of Information, Pakistan; School of Economics, University of Stockholm, Sweden; UNESCO; The British Council, U.K.; the Institute for Development Studies, University of Sussex, U.K.; London School of Economics, U.K.; The Open University, U.K.

6. SPIRES Development Communication File--SPIRES DEVCOM

The Institute's development communication file is now available on SPIRES. This computer-based cataloguing system provides many combinations to search rapidly for documents that fit the user's particular interest. With this capability, a user can look under more than one category at the same time. For example, rather than looking in a card catalogue under "radio" and then sifting through the listed entries for a specific application of radio, the user through SPIRES can search under 'radio'...in 'Latin America'...for 'adults'...for 'out-of-school learning'...in 'rural areas'...for 'literacy and family planning.'

The file is organized by projects that deal with media for development; it does not contain general or theoretical treatments of media's development role. Nor does it contain materials--books and articles--that can be found in regular libraries. Each project may have one or more documents that describe that project. The file contains over 300 projects and 700 documents.

Utilization has been gratifying. Scholars from other universities have also used the file quite extensively. Off-campus groups can receive a listing of the contents of the file, and ultimately this printout will be produced in a book-like catalogue at regular intervals.

(d) Total expenditures (estimated):

|                    | <u>Report year</u> | <u>Accumulative (1973-76)</u> |
|--------------------|--------------------|-------------------------------|
| 1. Grant funds     | \$ 25,086          | \$ 94,736                     |
| 2. Non-grant funds | <u>220,000</u>     | <u>220,000</u>                |
| Totals             | \$ 245,086         | \$314,736                     |

D. IMPACT OF GRANT-SUPPORTED ACTIVITIES IN ACHIEVING GRANT PURPOSE

According to the focus of grant purpose stated earlier, Stanford University is seeking to develop communication strategies for reaching a primary audience of villagers in poorer developing nations with various types of development messages (e.g., education, health, agriculture) with the most cost-effective alternatives of mass media and interpersonal communication, for purposes of both formal and non-formal education, but with special emphasis on the nonformal. During the third grant year, research, writing, training, and field work were especially devoted by Institute staff toward this focus.

More specifically, the work of the Institute in the last year concentrated heavily on radio as an effective and economic means of reaching large numbers of adults with development messages. Articles and books, conferences, and courses have centered attention on radio as a channel of great potential for rural villagers. Stanford University sponsored a small conference in April, 1976 on ways of using radio in development. Previous knowledge on this topic has been summarized in a book manuscript which brings together a number of case studies and summarizes much previously scattered research, to be published shortly. What has become clear from this work is that

although radio can be an effective means for reaching rural adults, the problems of development and social change are closely linked to the active participation of the people in development activities, in rural areas especially, and strategies of information/education must take this factor into consideration if they hope to provide popular participation and the redistribution of resources and information.

Research on radio for rural development is also utilized in planning new projects, such as in Nepal and Pakistan.

In the past year (as was indicated in the present Detailed Report), Institute staff have also been involved in redefining the conception of development and the role of communication in development, with focus on smaller media, equality, and participation.

Three doctoral students and three faculty members took part in field work during the past year. Two projects (Ivory Coast and Guatemala) have resulted in longer-term commitments and two or three students will remain in the field for more work. More students will have opportunities to work in these projects over the next several years. This kind of experience is invaluable training in research and provides Stanford faculty with the opportunity of testing research conclusions made in the university in the difficult world of rural development.

In addition to these larger research projects, four other Master's students went to conduct shorter-term field studies of their own. All returned to their home countries to conduct research within their home institutions. All will return in three to six months to write up and present findings at Stanford and take a few more courses

if need be. Although these field experiences are brief, and less formal than those in regular research projects, nevertheless they will be important learning experiences and will give an added dimension to the M.A. training at Stanford. They could contribute valuable insights to the development strategies the grant is pursuing. Their research is relevant to, and integrated with, their courses at Stanford University, and their field investigations are conducted under the guidance and supervision of faculty members at Stanford University.

E. OTHER RESOURCES FOR GRANT-RELATED ACTIVITIES

As the Institute's work involved the staff and students with other institutions and agencies, some financial support becomes available to supplement the grant funds for certain purposes.

The National Institute of Education and AID contracted with the Institute for the July, 1976 conference on Communication Policy and Planning for Education and Development. This contract offset faculty, staff, and student support in the amount of approximately \$15,000 during the third year of the 211(d) program.

The Guatemala project and the Ivory Coast project are each being carried out under separate contracts. These contracts provided \$71,000 for faculty, staff, and student support during the past year. UNICEF also contributed approximately \$1000 to support graduate students working in Guatemala.

Many students brought financial aid with them, either from their home institutions or from other sources, in the form of fellowships. This fact meant that 211(d) funds were used to assist some graduate

students only partially and others not at all, while some students were assisted entirely from 211(d) funds. We estimate the amount of non-211(d) funds for student support at about \$25,000.

The World Bank has covered costs involved in the production of the Jamison, McAnany, and Spain book on radio and development.

Stanford University has also in effect contributed \$129,408 in the form of the usual 56 per cent indirect cost rate applicable to research grants, but which the university has foregone in the case of the 211(d) grant.

#### F. UTILIZATION OF INSTITUTIONAL RESPONSE CAPABILITIES IN DEVELOPMENT PROGRAMS

##### 1. Requests for consultation

It is difficult to define a "request" for consultation for assistance. Sometimes this is a very broad invitation from a visitor to collaborate with an institution or on a project which must be followed up on to become a reality. At other times, it is a specific request for a set time, place, and activity, and must be responded to by a "yes" or "no". It is therefore almost impossible to summarize all requests or suggestions for consultation or collaboration, especially those not followed up or undertaken.

Perhaps one important point needs to be made here. The role of consultation for Stanford is limited by commitments to its two other objectives of research and training. Members of staff supported by grant funds believe that research and training form critical activities in strengthening the institutional capability of Stanford in the area of lower-cost communication technology and non-formal education.

A second point is that the Institute also has positive criteria for responding to requests for consultation. Not only do staff believe that being on the road too much of the time can make achievement of the two institution-strengthening goals difficult, but also certain requests are less directly related to priority goals of the grant. A second positive criterion in the consideration of new involvements was to respond to consultation requests that might lead to some research commitment in which Stanford could be involved.

One strategy which the Institute has for increasing its capacity to respond to the many requests for consultation is to gradually introduce postdoctoral and advanced graduate students into this type of work in company with one of the regular staff. There is often an age factor working against younger people acting as consultants, but talent and motivation often compensate for more limited experience.

2. Number of graduate students studying international communication and foreign visitors to the Institute for Communication Research

(a) Graduate Students Studying International Communication

| <u>Country</u> | <u>Number</u> | <u>Name</u>    | <u>Program</u> | <u>Supported at least in part by grant funds</u> |
|----------------|---------------|----------------|----------------|--|
| Argentina      | 1             | Schnitman, J.  | Ph.D           | yes  |
| Chile          | 3             | Alcalay, R.    | Ph.D.          | yes  |
|                |               | Contreras, E.  | Ph.D.          | yes  |
|                |               | Valdes, M.     | M.A.           | yes  |
| Colombia       | 1             | Sanchez, J.    | M.A.           | yes  |
| Dominica       | 1             | Charles, J.    | Ph.D.          | yes  |
| France         | 1             | Benveniste, A. | M.A.           | yes  |
| Guatemala      | 1             | Navas, C.      | M.A.           | yes  |
| Holland        | 1             | Lenglet, F.    | Ph.D.          | no   |
| Hong Kong      | 2             | Yu, Jeffrey    | M.A.           | yes  |
|                |               | Yu, Joseph     | M.A.           | yes  |
| Indonesia      | 1             | Idris, N.      | M.A.           | yes  |
| Iran           | 1             | Ameri, M.      | M.A.           | yes  |
| Ireland        | 1             | O'Sullivan, J. | Ph.D.          | yes  |
| Kenya          | 1             | Nkinyangi      | M.A.           | yes  |
| Mexico         | 4             | de Noriega, L. | M.A.           | no   |
|                |               | Galvan, T.     | M.A.           | yes  |
|                |               | Montoya, A.    | M.A.           | no   |
|                |               | Morett, F.     | M.A.           | no   |
| Pakistan       | 1             | Merchant, F.   | M.A.           | no   |
| Philippines    | 1             | Valencia, R.   | M.A.           | yes  |
| South Africa   | 1             | Shore, L.      | Ph.D.          | yes  |
| Thailand       | 1             | Suchato, N.    | M.A.           | yes  |
| United States  | 7             | Barton, D.     | Ph.D.          | yes  |
|                |               | Janus, N.      | Ph.D.          | yes  |
|                |               | Larson, J.     | Ph.D.          | yes  |
|                |               | Solomon, D.    | Ph.D.          | no   |
|                |               | Stockard, R.   | Ph.D.          | no   |
|                |               | Tarango, M.    | M.A.           | yes  |
|                |               | Vermilion, M.  | M.A.           | yes  |
| Venezuela      | 1             | Koeneke, H.    | M.A.           | no   |

(b) Foreign visitors

Professor Seth Adagala  
Kenya Institute of Mass Communication  
Nairobi

Professor Aggrey S. Awori  
School of Journalism  
University of Nairobi

Aslam Azhar  
Director, Pakistan Television Corporation  
Islamabad

Derek Bryceson  
Director, National Parks Service  
Tanzania

Dr. Kamala Choudhry  
Management Program, Ford Foundation  
New Delhi

Dr. Akiba Cohen  
Institute for Communication, Hebrew University  
Jerusalem

Paul Ellis  
Department of Geography  
University of Liverpool

Dr. Budd L. Hall  
International Council for Adult Education  
University of Toronto

Tek Batiadur Khatri  
Ministry of Communications  
Kathmandu, Nepal

Farwok Nisar  
Professor of Journalism, University of Punjab  
Head of Pakistani Press Association

Raul Pera  
Minister of Education  
Asuncion, Paraguay

Karl Steiren  
Broadcaster  
Helsinki, Finland

Tapio Varis  
University of Tampere  
Tampere, Finland

Gerhard Vogel  
Professor of Communication  
Hannover, Germany

David Wakati  
Director, Radio Tanzania  
Dar es Salaam

Chandra Wijayawardhana  
Director, Family Planning Communication Project  
Sri Lanka

Raymond Wong  
Hong Kong Baptist College  
Hong Kong

### 3. Utilization of institutional response capacities

Stanford University is committed to working toward analysis and solution of real world development/communication problems in its grant activity. This problem-solving mode of response is seen in the three major areas of building institutional capacity. In research, Stanford has maintained and intends to continue a strong commitment to field research and applied methodologies of evaluation and cost-benefit analysis. This does not preclude a desire to generalize findings and methods developed in field work to make contributions to theory and methodology. The work in the third year of the grant has involved the continuing of several field projects which are studying developing nation problems in education and rural development.

Training at Stanford University is related to research. Since much research is field, as opposed to laboratory, based, the training which students have received at Stanford is also biased in the direction of applied research. Beginning in the second year of the grant, a two-year Master's program for developing nations was inaugurated with the specific goal of preparing personnel for applied research in agencies and projects. It is hoped that over the life of the grant and beyond, this intermediate type of training can give sound preparation to more developing nation persons who will have to solve day-to-day problems with some kind of communication technology.

Consultation is an institutional response of Stanford University to requests for help in problem areas of communication and education. As mentioned in section F.1 above, Stanford University has responded within the limitations of time devoted to other major grant goals. Moreover, with an eye to providing for a greater number of trained persons available for this kind of request, it has initiated a program to introduce advanced students as well as post-degree staff members to both short and longer term field work. Thus far, three advanced doctoral students have responded to these kinds of requests and more are being prepared to do so in the subsequent years of the grant.

Concerning diffusion of research findings and field studies, Stanford University continued to publish a number of articles both through its Institute for Communication Research (cf. 1975-76 Annual Report) and elsewhere (Appendix A). Stanford University plans to continue this effort of making research publications available as much as possible and welcomes others making translations when they are requested. Attendance at conferences as well as publications were again part of Stanford University's efforts at diffusion in the third year, and will continue in the future.

#### G. NEXT YEAR'S PLAN OF WORK (1976-77)

The work plan for the fourth year of the grant (September 1, 1976 to August 31, 1977) is summarized within the four broad grant objectives listed previously: (1) capacity for training, (2) research, (3) consultation, and (4) linkages. Targets are specified as accurately as possible, and estimates of outputs are described.

## Objective 1 - Capacity for Training

### Generalized statement of outputs:

Providing formal course training for M.A., Ph.D., and post-doctoral students at Stanford University, as well as research experience both at Stanford University and in the field; shorter-term seminars or training conferences for a few groups of developing countries.

### 1976-77 targets:

\* Provide at least partial financial support for at least 8 of the 19 M.A. students in training who are specializing in development communication, and to 7 of the 10 Ph.D. students during the 1976-77 academic year. Estimated cost: \$87,654.

\* Provide minimum facilities to five post-doctoral fellows in communication and development. All bring their own support, but one. Estimated cost: \$3,600.

\* Offer at least 9 graduate courses directly relevant to 211(d) goals in the Institute, reaching about 160 enrollments, with about one-third of those from outside the Institute. Estimated cost: \$41,000.

\* Short-term training. Faculty and other staff are available to provide limited (one to four weeks) short-term training. Although such activities will continue during 1976-77, specific arrangements have not yet been finalized, except for a training course on evaluation research methods to be held in Guatemala. Such work may be specifically funded, and thus no budget has been assigned from 211(d) funds. No cost.

## Objective 2 - Capacity for Research

### Generalized statement of outputs:

Carrying out and reporting specific research studies, as well as publishing general research publications about media use for nonformal education and rural development, evaluation methodology, synthesis of knowledge about media in formal education, and communication planning.

### 1976-77 targets:

\* Continue research in two major field projects. In the Ivory Coast, Stanford University will provide consultation and supervision for the evaluation team studying the out-of-school ITV programs. In particular, research will focus on the assessment of rural adult needs relevant to the ITV project, special studies of the role of the animators in the field, and overall impact and administrative studies. Estimated cost: None from 211(d) funds (separate AID funding is provided through the Academy for Educational Development).

In Guatemala, Stanford University will design and supervise the exercise of a program of planning research for a radio-based out-of-school education project. Designed to reach an indigenous audience living in the highlands, the project is in the process of defining its objective, its basic structure, and its ways of operation. Stanford University's goal is to help obtain research information to enable Guatemalan planners to make policy decisions. In addition, Stanford University will make recommendations to the Guatemalan project staff concerning the staffing, operation, and research

strategies for a project evaluation office. Estimated costs: None from 211(d) funds (AID funding is provided through the Academy for Educational Development).

Preliminary plans are under consideration for involvement at the research level with one or more other projects, perhaps in Pakistan and Nepal, which are described elsewhere in this report. Also, Stanford University staff have offered to assist in consultation and research bearing on the current interest in developing nations in using communication technology for achieving development goals.

\* Publication of manuscripts completed or nearing completion. As discussed previously a volume of case studies and synthetic chapters about the role of radio for development will be published by Sage Publications. Estimated cost: None.

\* Eight published articles in books and journals, summarizing knowledge about mass media use in formal education, smaller media in nonformal education, and guidelines for communication planning. Estimated costs: \$12,000.

\* Eight reports published and distributed by the Institute reflecting recent research work. Estimated cost: \$10,000.

\* M.A. theses (10) and Ph.D. dissertations (3) should also be completed. Estimated costs: \$10,000.

\* Publish the special issue of Communication Research: An International Quarterly on "Communication and Development: Critical Perspectives," with articles by various communication scholars from Europe, Africa, Asia, Latin America, and the United States, in book form by Sage Publications. Estimated cost: \$1,000.

\* Continue collaboration with scholars at Seoul National University and the East-West Communication Institute in research on diffusion networks for family planning in Korean villages, and to explore the possibilities of a field experimental research design in which existing mothers' clubs in these villages would be converted to radio listening groups for nonformal educational programs. Estimated costs: \$2,000.

\* Stanford University will host one or more small-sized "mini-conferences" organized around a specific topic or issue that is important and timely in the field of international communication. For instance, from six to eight scholars specializing in research on the communication facts gap in development are invited to Stanford in October, 1976. This conference follows previous research and publications on this topic by Stanford University faculty and staff. Estimated cost: \$1,500.

\* Re-analyze survey and field experimental data gathered under a previous AID-sponsored research project on the diffusion of innovations among about 10,000 villagers in Brazil, Nigeria, and India, regarding such research questions (not previously explored) as which mass media and development agencies communicate directly (and indirectly) with more advantaged versus less advantaged farmers, and to what consequence. Estimated cost: \$4,000.

\* Develop new research proposals for future projects in Nepal and/or Pakistan, for example, and on the role of communication technology in development, including how policy decisions are made to initiate such communication technology projects. Estimated cost: \$16,000.

Objective 3A - Capacity to Respond to Requests for Consultation

Generalized statement of outputs:

To provide help to developing nation institutions in problem identification and analysis, project planning, formative and summative evaluations, and cost benefit/effectiveness analysis relating to use of various communication technologies in formal and non-formal education and rural development.

1976-77 targets:

\* Stanford University personnel will respond to requests for consultation by developing countries and international agencies, such as those mentioned in this section (not included here are time commitments to the long-term field research projects in Guatemala and the Ivory Coast). Estimated cost: \$1,000, plus separate funding for some specific consultations.

\* As a follow-up to earlier missions, a return consultation to Nepal has been scheduled in November, 1976. The purpose of this consultation will be to review the feasibility team's recommendations with Nepalese officials, and to develop, in conjunction with the USAID mission in Kathmandu, a possible radio project in teacher training. No cost.

\* Stanford will receive about 150 foreign visitors to acquaint them with its activities and other related activity of interest to communication within the university, and to, in turn, learn of activities elsewhere. Estimated cost: \$9,000.

Objective 3B - Capacity to Establish Linkages and Diffuse Research

Information in Useful Forms

Generalized statement of outputs:

To work to establish new linkages and improve old linkages with both international agencies and developing country institutions which are interested in the use of communication technology in solving educational/rural development problems; to work to diffuse information relevant to these goals in a more effective manner.

1976-77 targets:

\* Stanford University will attend or participate in about ten national and/or international conferences relevant to grant activities. Estimated cost: \$15,000.

\* Continue to develop and test a computer-based storage mechanism (SPIRES) for its current information on developing country projects which involve mass communication. Related published material will also be on file at Stanford University. This service will be available for visitors, students, and staff. Estimated cost: \$12,000.

TABLE 2

WORK PLAN BUDGET SUMMARY BY OBJECTIVES

(9/1/76 to 8/31/77)

| <u>Grant objectives</u>                    | <u>Resources</u> |
|--|------------------|
| 1. Capacity for training                   | \$ 132,254       |
| 2. Capacity for research                   | 56,500           |
| 3a. Capacity for providing<br>consultation | 10,000           |
| 3b. Capacity to establish<br>linkages      | 27,000           |
|  | <hr/>            |
| Totals                                     | \$ 225,754       |

## II. INVOLVEMENT OF MINORITY PERSONNEL AND WOMEN

Stanford University is an equal opportunity employer, and appropriate procedures were followed in selecting all faculty and staff with grant funds. Ten of the twenty-two graduate students supported by the grant in 1975-76 were women, and four of the seven American students in the graduate program are members of minority groups.

TABLE 3

## DISTRIBUTION OF GRANT FUNDS AND CONTRIBUTIONS FROM OTHER SOURCES

(Reporting period 9/1/73 to 8/31/76)

| Grant objectives/<br>outputs          | Grant expenditures               |                               |                        |   | Non-grant funding* |
|---------------------------------------|----------------------------------|-------------------------------|------------------------|---|--------------------|
|                                       | Period under<br>review (1975-76) | Cumulative<br>total (1973-76) | Projected<br>(1976-77) | Projected to<br>end of grant<br>(1975-78) |                    |
| 1. Education and<br>training          | \$ 108,000                       | 147,094                       | 132,254                | 226,020                                   | 257,000            |
| 2. Research and knowledge<br>base     | 98,000                           | 258,650                       | 56,500                 | 116,500                                   | 260,000            |
| 3. Consultation/linkages<br>diffusion | 25,086                           | 94,736                        | 37,000                 | 57,000                                    | 160,000            |
| Totals                                | 231,086                          | 500,480                       | 225,754                | 399,520                                   | 677,000            |

\*These best estimates include indirect costs which are not charged by Stanford University.

TABLE 4  
 ACTUAL AND PROJECTED BUDGET SUMMARY  
 (9/1/75 to 8/31/76)

|  | Expenditures to date |                    | Projected expenditures |                    |                    | Total     |
|--|----------------------|--------------------|------------------------|--------------------|--------------------|-----------|
|  | Year #1<br>1973-74   | Year #2<br>1974-75 | Year #3<br>1975-76     | Year #4<br>1976-77 | Year #5<br>1977-78 | 1973-78   |
| 1. Salaries (including research assistants, consultants, benefits, etc.) | \$ 95,307            | 147,077            | 159,262                | 174,714            | 137,766            | 714,126   |
| 2. Student fellowships   | 9,176                | 33,095             | 26,095                 | 18,040             | 16,000             | 102,406   |
| 3. Conferences and publications  | 30,502               | 4,055              | 3,000                  | 2,000              | 2,000              | 41,557    |
| 4. Travel and per diem   | 7,164                | 1,826              | 15,329                 | 12,000             | 7,000              | 43,319    |
| 5. Equipment and supplies  | 9,028                | 30,772             | 24,994                 | 17,000             | 10,000             | 91,794    |
| 6. Library acquisitions  | 524                  | 868                | 2,406                  | 2,000              | 1,000              | 6,798     |
| Total  | \$151,701            | 217,693            | 231,086                | 225,754            | 173,766            | 1,000,000 |

Page 60 has been omitted because it contains individual salary information.

TABLE 5 (CONT.)

II. Student support

1. Fellowships

|  |             |
|--|-------------|
| Dorothy Barton (tuition and stipend)         | \$ 6,120.00 |
| Eduardo Navas-R. (tuition)                   | 3,810.00    |
| John Nkinyangi (tuition and stipend)         | 6,510.00    |
| Maria Tarango (1/2 tuition and stipend)      | 3,060.00    |
| Joseph Yu (tuition and part stipend)         | 5,270.00    |
| Joaquin Sanchez-Garcia (part stipend)        | 200.00      |
| Nanthawan Suchato (part tuition and stipend) | 1,125.00    |

---

subtotal \$ 26,095.00

2. Assistantships

|                         |           |
|-------------------------|-----------|
| M. Figueroa             | \$ 325.00 |
| A. Benveniste (1 term)  | 1,275.00  |
| J. O. Charles (3 terms) | 3,600.00  |
| E. Contreras (2 terms)  | 1,360.00  |
| G. Gil ( 2 terms)       | 2,400.00  |
| N. Idris (1 term)       | 975.00    |
| N. Janus (4 terms)      | 4,175.00  |
| J. Larson (4 terms)     | 3,875.00  |
| J. O'Sullivan (1 term)  | 1,375.00  |
| R. Alcalay (2 terms)    | 2,100.00  |
| J. Schnitman (3 terms)  | 3,500.00  |
| K. Shapiro (3 terms)    | 3,150.00  |
| M. I. Valdes (2 terms)  | 1,316.25  |
| R. Valencia (1 term)    | 975.00    |
| M. Vermilion (4 terms)  | 3,350.00  |
| M. Tarango (1 term)     | 600.00    |
| L. Shore                | 1,550.00  |
| Joseph Yu (3 terms)     | 300.00    |
| John Nkinyangi (1 term) | 1,000.00  |
| Jeffrey Yu (3 terms)    | 1,500.00  |
| T. Galvan (1 term)      | 650.00    |

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subtotal \$ 39,351.25

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TOTAL \$ 65,446.25

TABLE 5 (CONT.)

|   |               |
|---|---------------|
| III. <u>Conferences, consultants, guest lecturers,<br/>and publications (including related honoraria,<br/>conference costs, etc.)</u> | \$ 3,000.00   |
| IV. <u>Travel and per diem (for Stanford University<br/>staff, both international and domestic)</u>                                   | \$ 15,329.59  |
| V. <u>Equipment and Supplies</u>  |               |
| 1. Computer services  | \$ 4,568.19   |
| 2. Other supplies and equipment   | 20,425.66     |
|   | <hr/>         |
|   | TOTAL         |
|   | \$ 24,993.85  |
| VI. Library acquisitions  | \$ 2,405.87   |
|   | <hr/> <hr/>   |
| GRAND TOTAL   | \$ 231,086.13 |

Page 63 has been omitted because it contains individual salary information.

TABLE 5 (CONTD.)

II. Student support

1. Fellowships

|   |          |
|---|----------|
| Ana Lucia Da Costa Pereira (stipend)    | \$ 3,200 |
| Marco M. Encalada (stipend and tuition) | 2,225    |
| Joyce Stanley (stipend and tuition)     | 6,675    |
| Nanthawan Suchato (stipend)             | 115      |
| Kiran Karnik (visiting scholar)         | 3,600    |
| Larry Shore (tuition and stipend)       | 2,225    |

---

subtotal 18,040

2. Assistantships

|                              |       |
|------------------------------|-------|
| Marco M. Encalada (3 terms)  | 2,700 |
| Rina Alcalay (2 terms)       | 2,250 |
| Maria Tarango (2 terms)      | 1,950 |
| Norecne Janus (3 terms)      | 3,375 |
| Jorge Schnitman (2 terms)    | 2,250 |
| Jeff Charles (4 terms)       | 3,900 |
| James Larson (4 terms)       | 4,200 |
| Nanthawan Suchato (1/3 term) | 400   |
| Steve Stathatos (1/2 term)   | 488   |
| Larry Shore (2 1/2 terms)    | 2,438 |
| Dorothy Barton (3 terms)     | 2,925 |
| Joseph Yu (3 terms)          | 1,350 |

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subtotal 28,226

3. Fringe benefits on assistantships (18.8%) 5,306

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TOTAL 51,572



TABLE 7  
GRANT ANNUAL BUDGETS AND EXPENDITURES

| Grant year | Grant -<br>original<br>budget | Actually<br>spent | Underspent<br>or over-<br>spent from<br>original<br>budget | Revised<br>budget<br>1974-75<br>report | Revised<br>budget<br>1975-76<br>report |
|------------|-------------------------------|-------------------|--|--|--|
| 1. 73/74   | 222,180                       | 151,701           | - 65,586   | 151,701                                | 151,701                                |
| 2. 74/75   | 258,200                       | 217,693           | - 40,504   | 217,693                                | 217,693                                |
| 3. 75/76   | 203,850                       | 231,086           | + 27,236   | 240,281                                | 231,086                                |
| 4. 76/77   | 167,082                       | ---               | ---  | 210,305                                | 225,754                                |
| 5. 77/78   | 148,688                       | ---               | ---  | 180,020                                | 173,766                                |
| TOTALS     | \$ 1,000,000                  | 600,480           | ---  | 1,000,000                              | 1,000,000                              |

## APPENDIX A

### RECENT PUBLICATIONS: INTERNATIONAL COMMUNICATION

#### Books and Monographs

- Jamison, D., McAnany, E. and Spain, P. (Eds.) Radio for education and development: Case studies and syntheses. Beverly Hills, California: Sage Publications, in press.
- Mayo, J., Hornik, R. and McAnany, E. Education reform with television: The El Salvador experience. Stanford, California: Stanford University Press, 1976.

#### Articles

- Butler, M. and Paisley, W. The potential of mass communication and personal communication for cancer control. In Cullen, J. (Ed.) Behavioral Dimensions of Cancer Control, Raven Press, 1976.
- Hornik, R. Television background characteristics and learning in El Salvador's educational reform. Instructional Science, 1975, 4, 293-302.
- Hornik, R. Useful evaluation designs for evaluating the impact of distance learning systems: Methodology. Educational Broadcasting International, March 1976, 9.
- Hudson, H. E. & Parker, E. B. Telecommunication planning for rural development. IEEE Transactions on Communications, October 1975, Comm-23, 1177-1185.
- Jouet, J. Ivory Coast: The out-of-school television project: A critical analysis. LACDES Quarterly, March 1976, 5, 42-50. (Available through SIDEAC, Stanford University).
- Maccoby, N. & Farquhar, J. W. Communication for health: Unselling heart disease. Journal of Communication, Summer 1975, 25:3, 114-126.
- Mayo, J., Hornik, R., McAnany, E. & Ingle, H. Aspiraciones academicas y profesionales de los estudiantes del tercer ciclo en El Salvador. Revista del Centro de Estudios Educativos, 1975, no. 1.

## Articles

- Mayo, J., McAnany, E., & Klees, S. The Mexican telesecundaria: A cost-effectiveness analysis. Instructional Science, October 1975, 4, 193-236.
- McAlister, A. L., Farquhar, J. W., Thoresen, C. E., & Maccoby, N. Behavioral science applied to cardiovascular health: Progress and research needs in the modification of risktaking habits in adult populations. Health Education Monographs, Spring 1976, 4, 45-74.
- McAnany, E. Radio's role in non-formal education: An overview. In Jamison, D., McAnany, E. & Spain, P. (Eds.) Radio for Education and Development: Case studies and syntheses. Beverly Hills, California: Sage Publications, in press.
- McAnany, E. Standing on the shoulders of giants or do we learn from the past (or present in ETV evaluations)? Bulletin of Educational Research, in press.
- McAnany, E. Television: Mass communication and elite controls. Society, September-October 1975, 12, 41-46.
- Morrison, D. E., Rogers, E. M., Dumar, K. & Fliegel, F. C. Stratification and risk-taking: A farther negative replication of Cancian's theory. American Sociological Review, in press.
- Parker, E. B. Social implications of computer/telecommunication systems. Telecommunication Policy, in press.
- Parker, E. B. Who should control society's information resources? In Kochen, M. (Ed.) Information for Action: From Knowledge to Wisdom. New York: Academic Press, Inc. 1975, 21-31.
- Parker, E. B. & Lusignan, B. Technical and economic considerations in planning radio services. In Jamison, D., McAnany, E. & Spain, P. (Eds.) Radio for Education and Development: Case Studies and Syntheses. Beverly Hills, California: Sage Publications, in press.
- Rogers, E. M. & Ortloff, C. The India satellite experiment. In Polcyn, K. A. (Ed.) The Educational Uses of Broadcast Satellites: Status, Applications, Costs, and Issues. Educational Technology Publications, 1976.
- Rogers, E. M. & Danziger, S. Non-formal education and communication technology: The second dimension of development and the little media. In Labelle, T. J. (Ed.) Educational Alternatives in Latin America: Social Change and Social Stratifications. Los Angeles, University of California at Los Angeles Press, 1975.

## Articles

- Rogers, E. M. The anthropology of modernization and the modernization of anthropology. Reviews in Anthropology, 1975, 2, 345-358.
- Rogers, E. M. and Solomon, D. S. Traditional midwives and family planning in Asia. Studies in Family Planning, 6, 126-133.
- Rogers, E. M. New perspectives on communication and development: Overview. Communication Research: An International Quarterly, 1976, 3, 99-106.
- Rogers, E. M. Communication and development: The passing of the dominant paradigm. Communication Research: An International Quarterly, 1976, 3, 213-240.
- Rogers, E. M. Network analysis of the diffusion of family planning innovations. In Holland, P. and Leinhardt, S. (Eds.) Social Networks: Surveys, Advances and Commentaries, New York: Academic Press, 1976.
- Rogers, E. M. Where we are in understanding the diffusion of innovations. In Lerner, D. & Schramm, W. (Eds.) Communication and Change: Ten Years After. Honolulu: University Press of Hawaii, 1976.
- Schnitman, J. A. Mass communication and mobilization in adult education. IACDES Quarterly, March 1976, 5, 35-41. (Available through SIDEC, Stanford University).
- Shapiro, K. R. An overview of problems encountered in aptitude treatment interactions (ATI) research for instruction. AV Communication Review, Summer 1975, 23, 227-241.

## Reports

- Contreras, E., Larson, J., Mayo, J., & Spain, P. The effects of cross cultural broadcasting. Stanford, California: Stanford University, Institute for Communication Research, June 1975.
- Foote, D. & Cowlan, B. A case study of the ATS-6 health, education, and telecommunications projects. AID Studies in Educational Technology. Washington, D.C.: Agency for International Development, Office of Education and Human Resources, Bureau for Technical Assistance, August 1975.
- Foote, D., Parker, F. B., Hudson, H. E. Telemedicine in Alaska: The ATS-6 satellite biomedical demonstration. Stanford, California, Stanford University, Institute for Communication Research, February 1976.

## Reports

- Mayo, J. & Hornik, R. Development radio for Nepal. Report prepared for UNICEF, the British Council and AID. Stanford, California: Stanford University, Institute for Communication Research, February 1975.
- Mayo, J. (Ed.) A Critique of development and communication trends in Tanzania, The Ivory Coast, and El Salvador, Stanford, California: Stanford University, Institute for Communication Research, September 1976.
- Rogers, E. M., Agarwala-Rogers, R. (Eds.) Evaluation research on family planning communication. Paris: UNESCO Technical Report, 1976.
- Rogers, E. M. et al. Communication networks in family planning diffusion in two Korean villages. Stanford, California: Stanford University, Institute for Communication Research, 1976.
- Rogers, E. M. Extending the agricultural extension model. Stanford, California: Stanford University, Institute for Communication Research, 1976.
- Rogers, E. M. and Solomon, D. S. Traditional midwives as family planning communicators in Asia. Honolulu, Hawaii: East-West Communication Institute, Case Study No. 1, 1976.
- Rogers, E. M. & Parcek, U. Acceptability of fertility regulating methods: A synthesis of research literature. Geneva: World Health Organization, Human Reproduction Unit, 1976.

## Papers

- Chavers, D. P. Needs assessment in bilingual programs: Analyzing relevant factors in Native American communities. Paper presented at First Native American Bilingual Education Conference. June 24, 25, 1976 (sponsored by Bay Area Bilingual Education League, Berkeley, California).
- Hudson, H. E. Transportation and communication in northern development. Paper presented at the Symposium on Planning for Sub Arctic Communities sponsored by the South-Central Alaska Chapter of the American Society for Public Administration, February 18, 1975.
- Hudson, H. E. The implications of domestic satellite services. Paper presented at the International Broadcasting Institute Seminar on the Role of New Communications Systems. Ottawa, Canada, May 27, 1975.

- Hudson, H. E. Communication and the development of rural Alaska. Paper presented at the Alaska Rural Media Conference, Fairbanks, Alaska, July 22, 1975.
- Maccoby, N. The Stanford Heart Disease Prevention Program. Paper presented at the Steinhart Symposium on Consumer Behavior in the Health Marketplace. Lincoln, Nebraska, March 10, 1976.
- Nelson, L. Television as an instrument of education - its advantages, possibilities and risks. Address to the 40th anniversary of the founding of the Autonomous University of Guadalajara, March, 6, 1975.
- Parker, E. B. Planning, communication technologies and institutions for development. Paper delivered to East-West Center Conference on Communication Policy and Planning for Development, Honolulu, Hawaii, April 5 - 10, 1976.
- Rogers, E. M. & Meyer, A. J. Communication Aspects of integrated rural development. Paper prepared for Academy for Educational Development, Washington, D.C., in press.

#### Guatemala Documents

Secretaria de Coordinacion. Junta Nacional de Educacion Extraescolar, Seccion de Recursos Humanos: Consejo de Planificacion Economica and Institute for Communication Research: Stanford University.

1. Informe que se presenta al Consejo de Planificacion sobre la primera etapa de la investigacion de base para el modulo de educacion basica extra-escolar (The report presented to the Economic Planning Council dealing with the first phase of the basic research for the program of basic non-formal education) October 1975.

2. Informe de la segunda etapa de la investigacion de base para el modulo basico de educacion extra-escolar. (The report on the second stage of the basic research for the program of basic non-formal education.) April 1976.

3. Sistemas de entrega y coordinacion interinstitucional: informe de la tercera etapa de la investigacion (Delivery Systems and Interinstitutional Coordination: report of the third stage of research) August 1976..

APPENDIX B

NON-STANFORD UNIVERSITY PARTICIPANTS AT THE CONFERENCE ON  
RESEARCH ON RADIO AND DEVELOPMENT

|                     |   |
|---------------------|---|
| Luis Ramiro Beltran | International Development Research Center<br>Apartado Aereo 53016<br>Bogota, Colombia |
| Richard Burke       | Latin American Studies<br>Indiana University<br>Bloomington, Indiana 47401            |
| Ijaz Chaudhry       | Ministry of Education<br>Islamabad, Pakistan  |
| Juan Jose Coronado  | ITESO<br>Guadalajara, Mexico  |
| Mary Ann Cusack     | Center for Educational Technology<br>Florida State University<br>Tallahassee, Florida |
| Wally Hannum        | Center for Educational Technology<br>Florida State University<br>Tallahassee, Florida |
| Edgar Nesman        | Sociology Department<br>Univ. of South Florida<br>Tampa, Florida                      |
| Gabriel Ofiesh      | LA/DR/EST (AID/W)<br>Department of State<br>Washington, D.C.                          |
| Clara Ines Olaya    | Planeacion Nacional<br>Division de Poblacion y Nutricion<br>Bogota, Colombia          |
| Bjarne Ruby         | Denmark   |
| James Smith         | LA/DR/EST (AID/W)<br>Department of State<br>Washington, D.C.                          |

James Theroux

Center for International Education  
Hills House South  
Univ. of Massachusetts  
Amherst, Mass. 01002

Robert White

Instituto de Investigaciones Socio-Economicas  
Tegucigalpa, Honduras

APPENDIX C

CONFERENCE ON COMMUNICATION POLICY AND  
PLANNING FOR EDUCATION AND DEVELOPMENT

CONFERENCE PROGRAM

SUNDAY, JULY 11

- 4:00 p.m. Welcoming Remarks  
John K. Mayo and William F. Massy,  
Stanford University  
Arthur S. Melmed, National Institute of  
Education  
Clifford H. Block, Agency for International  
Development
- 4:30 p.m. "Newer Concepts of Development Strategy: Their  
Bearing on Education and Communications"  
John P. Lewis, Princeton University
- 6:00 p.m. *Reception* (Faisan Patio, Florence Moore Hall)
- 7:15 p.m. *Dinner* (Faisan and Cardenal Dining Rooms,  
Florence Moore Hall)

MONDAY, JULY 12

- 7:15 - 8:15 a.m. *Breakfast*
- 9:00 a.m. "Current Goals and Models of Development:  
Implications for Communication Planning"  
Speaker: Aslam Azhar, Pakistan Television  
Panelists: Denis Goulet, Overseas Development  
Council  
Christopher Kolade, Nigerian  
Broadcasting Corporation  
Moderator: Stanley D. Handleman, USAID
- 10:30 a.m. *Break* (Refreshments in R&D Center Lobby)

10:45 a.m. Discussion

12:30 p.m. Lunch

2:00 p.m. "Communication Planning in Education: State of  
the Art"  
Speaker: Henri Dieuzeide, UNESCO  
Panelists: Philip Coombs, International Council  
for Educational Development  
Vijaya Mulay, Centre for Educational  
Technology, India  
Moderator: Emile G. McAnany, Stanford University

3:30 p.m. Break

3:45 - 5:00 p.m. Discussion

6:30 p.m. Dinner

TUESDAY, JULY 13

7:15 - 8:15 a.m. Breakfast

9:00 a.m. "Criteria for Selecting Appropriate Media Systems"  
Speaker: Wilbur Schramm, East-West  
Communication Institute  
Panelists: Hernando Bernal, Accion Cultural  
Popular, Colombia  
Alan Hancock, UNESCO  
Majid Teheranian, National Iranian  
Radio and Television Organization  
Moderator: David Hawkrige, British Open  
University.

10:30 a.m. Break

10:45 a.m. Discussion

12:30 p.m. Lunch

- 2:00 p.m. "Economic Analysis of Communication Media for Education and Development"  
Speakers: Dean Jamison, World Bank  
Steven Klees, Cornell University  
Stuart Wells, San Jose State University  
Panelists: William Coleman, U.N. Economic Commission for Africa  
Henry Levin, Stanford University  
Moderator: Arthur Meled, National Institute of Education
- 3:30 p.m. *Break*
- 3:45 - 5:00 p.m. Discussion
- 6:30 p.m. *Dinner*
- 8:00 p.m. Films (Faisan Lounge)  
1. British Council/Doordashan film on India's SITE project  
2. "Classroom Television: An Instrument for Educational Change"  
(USAID film of El Salvador and Niger ITV)

WEDNESDAY, JULY 14

- 7:15 - 8:15 a.m. *Breakfast*
- 9:00 a.m. "Critical Decision Points in the Implementation and Evaluation of Media Systems: Six Case Studies"  
Satellite Instructional Television Experiment (SITE)  
Speakers: Kiran Karnik, Space Applications Centre, Ahmedabad, India  
(E.V. Chitnis video tape on SITE)  
Moderator: Clifford Block, USAID
- 10:30 a.m. *Break*
- 10:45 a.m. Case studies (continued)  
(Participants should attend either session A or B)  
A. "Correspondence Teacher Training with Radio in Kenya" (Rn. 112)  
Speakers: Peter Kinyanjui, Institute of Adult Studies, Nairobi, Kenya  
Arthur Krival, University of Wisconsin Extension  
Moderator: Herbert Marchl, UNESCO

- B. "Educational Reform with Television in El Salvador"  
(Conference Rooms A & B, 2nd floor, R&D Center)  
Speakers: Irma Chavez, former Director of El Salvador's ETV System  
Robert Hornik, Stanford University  
Moderator: Ricardo Morales Basadre, Ministry of Education, Peru

12:30 p.m. *Lunch*

Afternoon *Free Time*

Bus tour to San Francisco will depart from the entrance of Florence Moore Hall at 2:00 p.m. and return after dinner. (Approximately 10:00 p.m.)

6:30 p.m. *Dinner*

THURSDAY, JULY 15

7:15 - 8:15 a.m. *Breakfast*

9:00 a.m. Case Studies (continued)

- "Radio Campaigns for Adult Education in Tanzania"  
Speakers: Julius Matiko, Ministry of Information and Broadcasting, Tanzania  
Hugh Barrett, Agricultural and School Programs Consultant, England  
Moderator: Peter Spain, Stanford University

10:30 a.m.

10:45 a.m. (Participants should attend either session A or B)

- A. "Telemedicine in Alaska: The Applied Technology Satellite Demonstrations" (Room 112)  
Speakers: Martha Wilson, Alaska Area Native Health Service  
Edwin Parker and Dennis Foote, Stanford University  
Moderator: Pat Pearce, Canadian Radio-Television and Telecommunications Commission

B. "Systems Planning for Television and Educational Reform in Korea: (Conference Rooms A & B, 2nd Floor, R&D Center)

Speakers: Yung Dug Lee, Korean Educational Development Institute  
Robert Morgan, Florida State University

Moderator: Yona Peless, Everyman's University, Israel

12:30 p.m.

*Lunch*

2:00 p.m.

"Synthesis and Discussion of Planning Lessons Emanating from Case Studies"

(Brief panel presentation by various panel participants followed by general discussion)

Moderator: Everett Rogers, Stanford University

3:30 p.m.

*Break*

4:30 p.m.

Conclusion of Conference

6:30 p.m.

*Barbecue Dinner* (Faisan Patio)

FRIDAY, JULY 16

7:15 - 8:15 a.m.

*Breakfast*

Participants depart

NON-STANFORD UNIVERSITY PARTICIPANT LIST

1. ALBA, Manuel (Philippines)
2. ARENAS, Clara (Guatemala)
3. ARUNDEL, Kevin (Washington, D.C.)
4. AZHAR, Aslam (Pakistan)
5. BARRETT, Hugh (England)
6. BERNAL, Hernando (Colombia)
7. CALDERON, Aurelio (Philippines)
8. CHAVEZ, Irma (El Salvador)
9. CHITRAKAR, Prem Law (Nepal)
10. CHOWDHURY, Kamaluddin (Bangladesh)
11. COLEMAN William (Ethiopia)
12. COOMBS, Philip (Connecticut)
13. COWLAN, Bert (New York)
14. DE PAREDES, Julia (Honduras)
15. DE SALCEDO, Margarita (Paraguay)
16. DIEUZEIDE, Henri (France)
17. DIRECTOR, Steven (Michigan)
18. EBAH, Noel (Ivory Coast)
19. EKLU-NATEY, Akuete Tete (Togo)
20. ESCOBAR, Alberto (Peru)
21. EVANS, Dave (Massachusetts)
22. FELICIANO, Gloria (Philippines)
23. FERGUSON, Donald (Washington, D.C.)
24. FERNANDEZ, Jaime (Nicaragua)

25. FUTIGAMI, Shigenari (Washington, D.C.)
26. GOULET, Denis (Washington, D.C.)
27. GRANT, Steven (Washington, D.C.)
28. GREEN, Charles (Indonesia)
29. GRIFFIN, Robert (Thailand)
30. HAMMOND, Scott (Washington, D.C.)
31. HANCOCK, Alan (England)
32. HANDLEMAN, Stanley (Washington, D.C.)
33. HASSAN, Suwadi (Indonesia)
34. HAWKRIDGE, David (England)
35. HOXENG, James (Washington, D.C.)
36. JALALUDDIN, K.M. (Bangladesh)
37. JAMISON, Dean (Washington, D.C.)
38. KARNIK, Kiran (India)
39. KINYANJUI, Peter (Kenya)
40. KLEES, Steven (New York)
41. KOLADE, Christopher (Nigeria)
42. KOUADIO, Konan (Ivory Coast)
43. KREIMER, Osvaldo (New Jersey)
44. KRIVAL, Arthur (Wisconsin)
45. LEE, Yung Dug (Korea)
46. LEWIS, John (New Jersey)
47. LIND, Marshall (Alaska)
48. LUSK, Howard (Guatemala)
49. MARCHIL, Herbert (France)
50. MARRIOTT, Florence (England)

51. MASKEY, Bishwa Koshar (Nepal)
52. MATIKO, Julius (Tanzania)
53. MELMED, Arthur (Washington, D.C.)
54. MIARSO, Yusufhadi (Indonesia)
55. MITZEL, Harold (Pennsylvania)
56. MONIEM, Ahmed Nagati (Egypt)
57. MORALES, Ricardo (Peru)
58. MORGAN, Robert M. (Florida)
59. MORGAN, Robert P. (Missouri)
60. MORSE, Harold (Washington, D.C.)
61. MOSELEY, Stephen (Washington, D.C.)
62. MULAY, Vijaya (India)
63. OLAYA, Clara (Colombia)
64. OLIVARES, Claudio (Guatemala)
65. PACORA, Lander (Peru)
66. PARAVICINI, Ignacio (Bolivia)
67. PEARCE, Pat (Canada)
68. PELESS, Yona (Israel)
69. POTTER, James (California)
70. RAHIM, Syed (Hawaii)
71. RICHSTAD, James (Hawaii)
72. ROMERO, Gonzalo (Bolivia)
73. SAFA, Nuras (Bangladesh)
74. SAKYA, Thakur Man (Nepal)
75. SANCHEZ, Elias (Honduras)
76. SCHRAMM, Wilbur (Hawaii)

77. SEOW, Peter (Singapore)
78. SHUMAN, Robert (Washington, D.C.)
79. SPRAGUE, David (Washington, D.C.)
80. TEHERANIAN, Majid (Iran)
81. TELL, Said (Jordan)
82. WARDEN, Henry (Alaska)
83. WELLS, Stuart (California)
84. WHITE, Robert (New York)
85. WILSON, Martha (Alaska)