This summary of the grant application for the Arkansas Technology Access Program (ARTAP) briefly describes the process used to develop the ARTAP proposal, the proposal's goals and objectives, and plans for continuation of ARTAP. The consumer-driven planning process and the systems approach to providing appropriate assistive technology and technology-related services for disabled persons in Arkansas are emphasized. The following goals are briefly explained: (1) to develop an ongoing, consumer-driven planning and evaluation system; (2) to develop a coordinated information/service system; (3) to facilitate the development and expansion of Technology Access Centers across the state; (4) to establish a marketing and public awareness campaign to promote the benefits and use of technology for persons with disabilities; (5) to develop coordinated training activities for consumers, their families, professionals, employers and the general public concerning technology-related services; (6) to develop a statewide system for equipment exchange of used assistive devices; (7) to improve interagency cooperation in the development of consumer-responsive policies and procedures regarding technology services; (8) to establish a network of community-based technology specialists responsive to consumers and their families; (9) to develop, implement, and evaluate a user-to-user network.
EXECUTIVE SUMMARY

Grant submitted by the Arkansas Department of Human Services, Division of Rehabilitation Services to the United States Department of Education, National Institute on Disability and Rehabilitation Research (84.224, State Grants Program), Washington, D.C. 20202

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Arkansas Technology Access Program (ARTAP)  
Executive Summary of the Grant Application  

Philosophy  
This proposal was the result of the collective efforts of a wide range of persons and organizations who shared the goal of integrating assistive devices and technology services into the mainstream of life for persons with disabilities. The purpose of this proposal was to create a statewide system for getting information and technology to people who can use it, to influence the decision-making processes of people who make it available, and to enhance and strengthen the relationships between the consumer of technology, the provider, the funder, and the assistive device developer.  

Process Used to Develop the ARTAP Proposal  
Governor Bill Clinton has designated the Department of Human Services, Division of Rehabilitation Services as the agency responsible for preparing the grant application in accordance with Public Law 100-407, the Technology-Related Assistance for Individuals with Disabilities Act of 1988. The responsibilities of the Division of Rehabilitation Services include: (a) ensuring active, timely, and meaningful participation by individuals with disabilities and their families or representatives, and other appropriate individuals with respect to performing functions and carrying out activities under the grant; (b) assisting in the development of the statewide program of technology-related assistance; (c) ensuring coordination between public and private agencies, including entering into interagency agreements; (d) administering and supervising the funds made available under the grant; and (e) delegating any of these responsibilities to one or more appropriate agencies, entities, or individuals.  

The strategies that were used to develop plans for achieving these tasks are presented below in Figure 1. As can be seen, the ARTAP model reflects a truly consumer-driven planning process. ARTAP evolved from the Technology Access for Arkansans (TAARK) project, a collaborative, statewide technology planning activity. A Technology Steering Committee, comprised of representatives from 6 public and private agencies having an interest in the technology needs of persons with disabilities, assisted in the establishment of the Coordinated Planning Committee. The Coordinated Planning Committee was made up of 48 persons representing persons with disabilities, parents of children with disabilities, and 25 agencies and organizations. Six Study Groups were formed from the Coordinated Planning Committee in order to conduct background work concerning the characteristics, strengths, and deficiencies of the existing technology service system. These study groups included Consumer Needs, Information
Throughout the ARTAP planning process, the involvement of individuals with disabilities, their families, and their representatives has been actively encouraged and facilitated. The vehicles for insuring consumer input and participation in the planning process included questionnaires distributed to over 50,000 persons with disabilities across the state, informal surveys of consumers by persons involved in the planning processes, use of previous needs surveys conducted by other agencies/groups, and direct participation by consumers at all levels of information gathering and decision-making in the development of this grant proposal. The cornerstone of the ARTAP planning process was the designation of a Consumer Advisory
Committee to establish priorities for the system. The Consumer Advisory Committee is a group of persons with disabilities and parents of children with disabilities who were selected from the ranks of the CPC. Once the priorities were identified by the Consumer Advisory Committee, they developed methodologies for addressing the priorities.

Goals and Objectives

The ARTAP's goals and objectives reflect a systems approach towards providing appropriate assistive technology and technology-related services for all persons having disabilities in Arkansas.

Goal 1: To develop an ongoing, consumer-driven planning and evaluation system.

An Advisory Council will be appointed by the Deputy Director of the Division of Rehabilitation Services, consisting of 15 individuals. At least 9 (60%) members of the Advisory Council will be persons with disabilities or their representatives; the remaining 6 (40%) members will represent professional groups, agencies and non-profit organizations. In order to identify barriers to state plan implementation and to develop solutions to these barriers, a variety of public and private organizations will be accessed to gain information regarding barriers and solutions. Other vehicles for the identification of barriers will include: a statewide Annual Technology Conference; TAARK Study Group reports and recommendations; reports from the Technology Access Centers (TACs) established to help people secure needed technology and/or related services; Governor's Developmental Disabilities Planning Council data; and comprehensive needs assessments of Arkansans accessing ARTAP. Study Groups will submit reports to the ARTAP Advisory Council for consideration and review. The ARTAP Advisory Council members will make informal contacts with consumers of technology throughout the state to gain evaluative information. Public forums provided at meetings of numerous public and private groups will serve as important vehicles for consumer input. Evaluation forms provided to each consumer accessing the TACs and telephone interviews will yield information relative to their satisfaction with the TAC and with the overall system. In addition, statewide consumer and professional surveys will be prepared, disseminated, and analyzed in the third year.

Goal 2: To develop a coordinated information/service system.

This goal will be achieved by three interrelated objectives: to develop a Technology Information System (TIS); to disseminate the information system across the state; and to evaluate the effectiveness of the system. A Request for Proposal process will be used to award the TIS to an appropriate agency or group by January 4, 1990. The first priority of the TIS will be the development of a computer-based central repository of information. The TIS will be staffed by 6 individuals consisting of a Program Director, three Information Specialists, an administrative
assistant, and a Marketing Specialist. An organizational chart reflecting the TIS staff personnel and their responsibilities is presented below in Figure 2.

![Organizational Structure of Technology Information System](image)

**Technology Information System Organizational Structure**

- **Program Director** (supervision, coordination, and evaluation)
- **Information Specialist** (funding emphasis and coordinator of specialized assistive device centers)
- **Information Specialist** (coordinator of training)
- **Information Specialist** (coordinator of regional technology specialists)
- **Marketing Specialist** (development of marketing plan)
- **Admin. Assistant** (office management)

**Figure 2. Organizational structure of the Technology Information System.**

The TIS will be able to provide consumers, their families, professionals and the general public with information on accessing services in their local community, funding provisions and other procedures, and information about quality vendors. The information access system that will be developed for the TIS will incorporate state-of-the-art concepts and technologies. The information system will be fully operational by October, 1990. Information will flow outward from the TIS to the various Technology Access Centers (see Goal 3), regional technology specialists (see Goal 8), and to others accessing the system. In addition, information concerning technology that is gathered by these and other sources will be added to the system as it becomes available.

Evaluation of this objective, as with all other objectives will involve multiple evaluative techniques and sources of information throughout the grant, including measures of satisfaction obtained from consumers, needs assessments of a variety of agencies/groups in the system,
TAARK progress reports, input from the federal technical assistance program, quarterly reports from the TACs, and other procedures.

**Goal 3:** To facilitate the development and expansion of Technology Access Centers (TACs) across the state.

Requests for proposals will be published and sent out across the state specifying the development of 6 TACs. Five TACs will specialize in one of the following areas: (1) communication, (2) blind and visually impaired, (3) cognitive and language habilitation, (4) deaf and hard of hearing, and (5) independent living. Two TACs will specialize in independent living as it was determined that there was a great need throughout Arkansas for these services. Except for the Independent Living TACs, each of which will serve only half of the state, all other TACs will be responsible for providing services to the entire state. Figure 3 reflects the general structure of the TAC system.

*Figure 3. Illustration of the structure and functions of the Technology Access Centers.*
The general responsibilities of each TAC will be to freely provide information and hands-on demonstration concerning targeted technology devices and approaches to consumers, parents, professionals, employers, business, and the general public. The TACs will also provide and participate in training activities concerning technology and awareness; provide technical assistance to consumers, professionals, policy makers and the TIS; and generate information concerning technology and services. In addition, TACs will provide formal evaluations and other services, such as therapy and device construction, for a fee. Finally, each TAC will be required to participate fully in the evaluation of its own activities and those of the statewide technology system. The TACs will maintain a computerized record of the technology and information resources that it possesses, and this database will be shared with the TIS, other TACs, Technology Specialists, and others across the state concerned with technology access.

Each TAC will also establish an advisory board with at least 60% representation by persons with disabilities and their families and representatives. The roles of these boards will be to: advise TAC staff on issues concerning consumer accessibility; review plans and implementation of the plans; assist in evaluating the effectiveness of the TAC; and assist the TACs to maintain close working relationships with the target population.

Representatives from the TACs and the TIS will meet regularly to share information, to evaluate progress, and to develop plans for future activities.

ARTAP will provide training to personnel employed by the Arkansas Special Education Resource Center (ASERC) on a regular basis so as to cultivate a greater diversity of technology-related skills. These skills, in turn, will serve to provide information and direct services to school systems in need for such services. There are also 15 educational service cooperatives located across the state which are designed to provide resources and training to school systems across counties. The cooperatives will participate in the information system developed by the TIS and the TACs.

TIS staff will work closely with Division of Rehabilitation Services personnel who are involved in developing a vocational rehabilitation facility. This will ensure that compatibility with the TIS will be maintained such that all information generated is disseminated to the TIS and, in turn, shared with other information sites across the state. Support and training will also be provided to the vocational technology site personnel by ARTAP staff.

Both qualitative and quantitative evaluation techniques will be used to determine the effectiveness of the TACs. Quantitative evaluation techniques will include such techniques as maintaining counts of numbers of persons receiving specific types of services provided by the TACs, while qualitative evaluation strategies would include interviews and assessments of consumer satisfaction with services provided.
Goal 4: To establish a marketing and public awareness campaign to promote the benefits and use of technology for persons with disabilities.

A comprehensive marketing and public awareness plan will be developed by the Marketing Specialist and a marketing firm. This plan will be reviewed and approved by the ARTAP Advisory Committee no later than April 4, 1990.

The comprehensive marketing plan will include a variety of activities. Target audiences for the campaign will first be identified for marketing strategies. Materials will then be developed for use in the campaign, including television and radio public service announcements, press packets, "ad slicks", news releases announcing the initiation of ARTAP as well as progress of the project, and brochures. All marketing materials, as well as the proposed distribution strategies, will be reviewed by the ARTAP Advisory Committee and its subcommittees by July 15, 1990. Consumer and advocacy groups will be provided the opportunity to review the marketing materials and strategies that are developed. The statewide implementation of the marketing plan will commence on August 1, 1990. The development and revision of marketing materials, however, will be an ongoing activity throughout the life of the project.

Evaluation of the ARTAP marketing and public awareness campaign will involve recording and analyzing the frequency of occurrence of a wide variety of activities and products, such as ad slicks that have appeared in publications and the airing of public service announcements. Pre- and posttests will be used in presentations to determine the level of expanded awareness created. Persons who access the Technology Information System and TACs will be asked specific questions that will yield information about the impact of marketing activities.

Goal 5: To develop coordinated training activities for consumers, their families, professionals, employers and the general public concerning technology-related services.

Assessments of training needs related to technology that have been conducted by a variety of public and private agencies will be examined during the first year of ARTAP implementation. Ongoing training needs will also be identified as a function of contacts made with the TIS, each TAC, and, in the third year, the regional technology specialists.

TIS staff, TAC personnel, and consultants will conduct training activities in the area of assistive technology at a variety of state meetings, university-based settings, and in public and private agency settings. ARTAP will investigate and use distance teaching approaches (e.g., conference calls, teleconferences, and instructional video tapes) in order to efficiently reach statewide audiences.

The evaluation of the ARTAP training process will include systematically collecting descriptive and qualitative information on each training activity. Comparison of this information
to established training plans and priorities will enable decisions to be reached concerning the accomplishments of training goals.

During the third year of this project, consumer and professional technology needs surveys will be conducted. These surveys will be similar to the surveys conducted during the Spring of 1989. Comparisons of the results of these surveys will enable the ARTAP staff to determine the overall impact of the training activities to the identified needs.

**Goal 6: To develop a statewide system for equipment exchange of used assistive devices.**

Currently in Arkansas, there is no statewide system for the distribution of used assistive devices. A registry of such devices will be created by ARTAP. Policies for the registry will be designed by ARTAP personnel with the input of the ARTAP Advisory Council, which has a majority consumer constituency. The information regarding used assistive devices will be stored in the TIS database to be accessible to all persons in the state. Efforts will be made to publish print and audio materials relating to the availability of used assistive devices around the state and to disseminate these materials on a regional and state level to potential consumers of such used devices.

The TACs, once developed, will assume joint responsibility with the TIS for the acquisition of this type of information as well as for dissemination and marketing of the program. The regional technology specialists will be given information regarding used assistive technology in their regions, and be trained to secure this information on a regional basis and to share the information with the TIS.

Both a qualitative and quantitative index of satisfaction with this component of the system will be acquired. Quantitative measures will assume several forms such as the examination of the number of requests for used equipment or requests for services made of the TIS, the TACs, and the regional technology specialists. Qualitative measures will focus on consumer satisfaction with procedures inherent in the system as well as outcomes of having accessed the system.

**Goal 7: To improve interagency cooperation in the development of consumer-responsive policies and procedures regarding technology services.**

The Governor will establish an Interagency Council to work with ARTAP consisting of policy-making staff from numerous agencies. The role of the Interagency Council is the identification and solution to barriers caused by state regulations and procedures, such as purchasing processes for client services and devices. In order to facilitate change within the service delivery system, it is critical that cooperative agreements among agencies and groups throughout the state be developed to establish new and creative means of funding needed technology and related services for persons with disabilities. The Interagency Council will have
Arkansas Technology Access Program

direct communication links with the ARTAP Technology Advisory Council by having some members in common and by the appointment of a liaison between committees.

One Information Specialist will have a specialty in technology funding and other related issues, and this person will serve as the staff person of the Interagency Council. Training activities developed by the TIS staff will target groups of leadership personnel and provide information pertaining to the impact of their activities on the needs of persons with disabilities. Training will focus on funding issues, technology benefits, technology access, barrier awareness, and advocacy.

Evaluation will concentrate on the changes in the policies related to technology access. An examination of the number of pre-grant cooperative agreements versus post-grant agreements will be initiated, providing an index of change within the system. Also, documentation of whether training occurred and the satisfaction with that training will be collected and analyzed. Finally, a comparison will be made between the policy barriers that are identified and the success of the solutions to those barriers.

Goal 8: To establish a network of community-based technology specialists responsive to consumers and their families.

A network of teams of trained technology specialists will be established in each of the 8 regions of the state. The regional technology specialists will: assist in identifying local barriers and solutions; implement those solutions; identify local training needs; conduct and sponsor training on a local level; provide technology related assistance and support to persons with disabilities, their families and professionals; and provide information to the TIS concerning local resources. In addition, the Regional Technology Specialists will assist in organizing local resources, such as the Pioneers of America and technical college students, as support for ongoing assistive device services and projects.

The primary criteria for those selected to participate is that they have a special interest and capability for promoting assistive device technology and services in their area. Training will be provided to each applicant focusing on accessing the TIS, the TACs and other components of the existing service delivery system, funding issues, technology benefits, barrier awareness, and advocacy. The technology specialists would be trained between January and March of 1991. Compensation will be provided in the amount of $125 monthly for each specialist, and each team coordinator will be compensated $150 monthly to cover phone, postage, and minimal travel costs associated with the program.

Each regional team will be encouraged to develop a working relationship with a local agency or group that will serve as a sponsor for their activities.

Evaluation of the effectiveness of the regional technology specialists will be determined using both qualitative and quantitative indices as with other goals, e.g., the number of training
activities conducted in each region of the state by the specialists, the degree of satisfaction expressed by recipients of these services in each region, examining the number of complaints registered with the TIS, etc.

Goal 9: To develop, implement, and evaluate a User-to-User network.

A network of users of technology will be developed across the state during the implementation of the ARTAP system. This system, called the User-to-User Network, will place consumers and their families in touch with other individuals who have used specific assistive devices and technology services. Such a referral and support system will provide a tremendous service to potential users of technology who too often purchase technology that is inappropriate for their needs. The User-to-User Network will allow those who have already experienced and overcome obstacles relating to assistive devices and technology services to share their experiences and information with others. This facilitates the development of advocacy skills, information dissemination, and needed support for consumers and their families.

Participants in the User-to-User network will be identified employing a variety of previously effective approaches including marketing techniques, nominations from the TACs, information presented in newsletters and conferences, and other procedures. Identification of the initial pool of participants will be concluded by September, 1990. Every person who is identified will receive a packet of materials explaining the program and their duties and a release form which must be signed before they can be entered into the network. A registry of all participants in the User-to-User network will be developed employing a computer database housed at the TIS. All nominations and self-referrals will be stored in this database and updated regularly as new nominations and referrals are made to the system. All TACs will be contacted by ARTAP personnel and given a listing of the names, addresses, and telephone numbers of those involved in the network by November, 1990.

Techniques for evaluating the effectiveness of the User-to-User network will include examining the number of nominations of persons to participate in the network, comparisons made by region of the level of activity of technology specialists in their respective regions, and recording of the number and characteristics of the persons who participate in the User-to-User training sessions. Semi-annually, participants in the network will also be asked to evaluate the quality of the network. The characteristics of the persons who use the system for a source of information or support will be analyzed to identify patterns and service gaps. In addition, satisfaction and recommendation questionnaires, similar to the ones used to evaluate the information system, will be sent to all persons who access the User-to-User network.
Plans For Continuation of ARTAP

As reflected in its name, the Arkansas Technology Access Program is designed to be an ongoing program to improve technology access, not a limited duration project. A variety of mechanisms have been built into ARTAP in order to achieve this goal. These include: the development of long term cooperative relationships between and among consumers and professionals; the establishment of commitments to support the program from state level policymakers; the use and expansion of existing resources whenever possible instead of creating expensive new "brick and mortar" projects; the development of effective yet low cost monitoring and evaluation mechanisms; the implementation of extensive training programs for consumers and professionals that emphasize the role of advocacy in technology access; the implementation of a statewide public awareness campaign; the development of local rather than centralized networks of technology specialists throughout the state; the creation of low cost mechanisms for obtaining needed devices, such as the Equipment Exchange Program; and, the development of proven low cost technology support systems for persons with disabilities and their families. In addition, ARTAP's Technology Information System is designed to serve as the model for a comprehensive human services information and referral system in Arkansas. Such a system has received support from the Arkansas Legislature and has been discussed by many groups over the past five years. ARTAP will be the first implementation of such a system in Arkansas.

The success of the ARTAP process reflects very strong commitments by consumers and professionals in Arkansas to break down the barriers to technology access, and to enhance the lives and opportunities of persons of all ages with disabilities through the appropriate use of technology. Funding is sought under P.L. 100-407 to help facilitate these efforts. The process of developing these cooperative relationships in Arkansas and the ARTAP activities can help to serve as models for other states working on technology access problems.