

GINIE: Global Information Networks in Education

Internal Evaluation

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in collaboration with GINIE faculty,
staff, associates and volunteers
University of Pittsburgh School of Education
Institute for International Studies in Education

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Executive Summary

Introduction

Because education can alleviate the effects of crisis and transition and facilitate the reconstruction of societies, educational professionals need rapid access to quality materials and information. A centralized repository of information has been needed to support rapid response capabilities, maximize limited resources, share information across agencies and donors, and expedite the efforts of different programs. The Global Information Networks in Education Project, hereafter referred to as the GINIE Project, is a multifaceted information and communications service for education professionals working in nations in crisis and/or transition. Modern telecommunications technologies provide the foundation for a system that collects, organizes, stores, and rapidly distributes information from diverse but complementary sources, that supports complex international relationships, and that facilitates a network of mutual support among individuals from disparate agencies and educational institutions.

The core of the project is a computer-based system that serves both as an information organizer and distributor and as a hub for establishing and maintaining professional relationships among members of state department agencies, non-governmental organizations (NGOs), United Nations (UN) agencies, in-country educators and administrators, and policy makers. For many of these professionals, GINIE is evident primarily as an Internet web site that contains a unique database of important materials, a responsive e-mail inquiry system, and several topic-specific conference systems. For others, GINIE also provides secure web sites and communication systems for working groups with specialized interests. The purpose of this report is to evaluate the development and potential impact of GINIE and provide recommendations for its enhancement. The evaluation covers the project design and development time period from October 1995 to September 1997.

This evaluation set out to answer the following questions:

1. Has GINIE met the goal and objectives set forth in the USAID task order HNE-5836-G-00-5060-00?
2. Who can use GINIE and how can they use its resources?
3. How can GINIE better meet its users' needs in a cost effective, efficient manner?

This evaluation does not intend to repeat the background information and levels of detail provided in each of the GINIE semi-annual reports. Information contained in those reports, however, may be referenced throughout this report.

GINIE Goal and Objectives

The goal of the GINIE project is to contribute to the provision of educational services to citizens of or refugees from nations in emergency or post-emergency transition. It assists governmental agencies, international organizations and NGOs to draw on collective past experience in order to fashion appropriate interventions quickly and efficiently.

The international community has long been concerned with the provision of education and related counseling and orientation services to children and adults in crisis and transitional situations. Education represents stability to populations coping with trauma and change, and contributes to the maintenance of civil order during those times. Education also contributes to the post-crisis rebuilding and recovery of a society.

According to its contract, the GINIE Project is to assist nations in crisis or transition through the following objectives:

1. It will build a database/repository to make educational information available to either of two categories of 'nation in crisis':
 - those affected by armed conflict,
 - and those affected by rapid and often destabilizing political and socioeconomic changes that result in educational systems in disrepair or in need of major reform;
2. The database will be designed along four general categories: early childhood/preschool, primary, secondary, and higher education;

3. For the first two years of the project, staff will initially focus on collecting materials in suggested areas such as refugee education and educational finance; and

4. Data will be accessible via Internet servers such as the World Wide Web (WWW) and Gopher.

Methodology of the Evaluation

This evaluation was conducted using a variety of information sources. Semi-annual project reports, trip reports, correspondence, e-mail, and other forms of documentation were examined. Former and current GINIE Project users, faculty, staff and participants were interviewed. The original task order and final results were compared.

The results of this research are reported in three sections:

- 1) the creation and development of GINIE which summarizes what was produced and accomplished related to the original task order;
- 2) the utilization of GINIE which presents an analysis of its potential impact and effectiveness by intended users within the constraints and limitations of the medium; and
- 3) recommendations, which presents conclusions and recommendations for further refinement and increased utilization particularly as recommended by educational professionals and field workers interested in GINIE.

These sections are followed by appendixes that provide examples of promotional materials, webpages, database records, interview questions, expenses, staffing information, server reports, and references. This evaluation was conducted by Karen Fullerton, M.Ed, Research Associate/Co-Principle Investigator for PEN-DOR (Pennsylvania Education Network Digital Object Repository). She has worked in instructional design and technology for over 18 years including 6 years as the manager of a media production facility. She has completed this evaluation as a consultant to the GINIE project. She also teaches graduate and undergraduate courses and conducts in-service training for K-12 teachers and administrators. Courses include: audio and video production, computers and the Internet in education, introduction to instructional technology, media production and utilization, media management, mass media in America, journalism, and broadcasting. She thanks the GINIE staff and volunteers for their assistance with data collection and analysis especially Maureen McClure and Georgia A. Williams and also thanks the GINIE developers and users who were interviewed.

Summary

In summary, the GINIE Project has successfully completed and exceeded its contractual obligations by doing an excellent job building a prototype for a unique database of educational materials related to the provision of educational services in nations in crisis and transition. Additionally, GINIE staff have shown an extraordinary level of responsiveness to the professionals delivering humanitarian assistance by adapting the focus of the material collection and its organization and presentation to meet their needs. Additional capabilities that complement the database and extend its usefulness were also designed and developed by GINIE in response to the needs of its users. These include

- an on-line search engine for the database,
- special topic websites for comprehensive, rapid access to materials in GINIE and links other related websites,
- the capability to provide on-line conferences for those with computer and Internet capabilities to discuss urgent issues and receive immediate assistance,
- secured web sites for on-line exchanges by special working groups around topics of mutual interest,
- listservs for sending information about special topics directly to registered users via e-mail,
- e-mail answering systems accessed via the main GINIE website or from the special topic pages,

- and a process for automatically submitting and uploading materials to the database via the webpage.

With no additional funding, GINIE was also able to far exceed its original mandate of building a database by soliciting volunteers and leveraging the resources and staff of multiple related endeavors to benefit the multiple complimentary elements of the project.

GINIE offers unique, computer-based communication and information services dealing with educational issues for nations in crisis or transition that are not found elsewhere in this type of integrated, accessible format. Although it is in the prototype stage, it offers tremendous potential for greater usability and extensibility. It has already shown it can be a consistent, responsive, and stable base of support during times of crisis and transition. For those responsible for rapid response in frequently volatile situations, it provides a stable resource of easily accessible educational materials and contacts with experienced professional colleagues who can inform them on what has been done in other, similar situations. In addition, education professionals from more stable environments can provide collegial support. The continued support of multiple agencies is needed to maintain the growth of the collection.

The GINIE Project has met its goal and objectives as set forth in the original task order and when applicable has adapted those objectives in response to users' needs and requests. During this initial design and development phase, GINIE has established a strong foundation for future growth and expansion while maintaining a lean, flexible organization capable of rapid response to user needs and technological innovations.

Its strengths, however, currently remain underutilized because they are under publicized within agencies and organizations that can best benefit from using GINIE. Those who could benefit most from the professional networks and information provided by GINIE need to be supported by their agencies in terms of access to technology and with on-going contributions to the collection. Improvements in these areas should be the responsibility of and made a priority by the funding agency and participating organizations. Additionally, formal agreements for on-going contributions to the database need to be implemented among those organizations involved in education during crisis and transition. These contributions need to come from departments responsible for information distribution and training as well as from field personnel reporting on their successful approaches to situations and on lessons learned. Funding should be made available for the digitization of existing print and media materials when digital forms are not accessible. Agency participants, not GINIE staff or students, should also assume responsibility for generating, moderating, participating, and maintaining discussion topics in the on-line conferences for the mutual benefit of all.

A tremendous amount of staff and volunteer time went into the development of GINIE resulting in an effort that deserves to be built upon and extended. Given an initial investment of \$216,000, the University of Pittsburgh's 48% overhead rate, and the state of technology at the time of its development, GINIE's design, usability, flexibility, and potential for expansion are remarkable.

Section 1: Creation and Development of GINIE

This section describes in general how GINIE was created and developed to meet the requirements of the task order and its potential users. Significantly more detail, especially concerning the evolution of the project over time as it responded to changes in technology and to formative feedback from interested users, can be found in the semi-annual reports. This section provides a descriptive answer to the question, "Has GINIE met the goal and objectives set forth in the USAID task order HNE-5836-G-00-5060-00?"

Introduction

The original GINIE Project task order was issued in October 1995 and the project was to be completed in September 1997. In fact, by using savings it was possible to extend the contract and basic services of GINIE through May 1998 when the project will end. This section will concentrate on the description of the task order requirements including the creation and design of the database, the collection of information, the analysis and review of information, and the dissemination of information including the GINIE conference system.

GINIE was accomplished with an expenditure from USAID of \$216, 000. Faculty and staff also leveraged resources from other projects awarded to the University of Pittsburgh Institute for International Studies in Education (IISE) which contributed to the acquisition of materials and to access to content specialists in the field.

It is important to note that the design of the information and communication technology was a collaborative effort between GINIE staff and key field personnel. Input was provided throughout the project's development. For example, Bosnian educators stressed their need not only for information accessible from an on-line database but also the means to participate in interactive relationships. This led to the formation of three sets of professional dialogues, the Bosnian Education Working Group, US-Bosnia School and Community Development, and OBNOVA (Bosnian teacher education renewal), both off-line in face-to-face meetings and on-line through follow-up e-mail exchanges. Each of these dialogues between US and Bosnian education professionals continued without USAID funding. This also illustrates how ongoing formative evaluation and responsiveness to users occurred throughout GINIE's development.

Another example of a way in which users informed the design of GINIE occurred in March 1997 when a project approach to GINIE was implemented. Access to GINIE materials and links to related pages and projects were organized under a "Projects Desk" that included main categories such as the Emergency Desk, Renewal and Transition Desk, Outreach Desk, and Other Resources. The items included under each of these major headings and additional details can be found in *Appendix B: GINIE Web Pages* where print outs of each major web page are provided.

Description of Task Order Requirements and How They Were Developed:

The USAID task order required IISE, the University of Pittsburgh Institute for International Studies in Education, to perform the following tasks. According to its contract, the GINIE Project was to have performed the following objectives:

1. It will build a database/repository to make educational information available to either of two categories of 'nation in crisis:' those affected by armed conflict and those affected by rapid and often destabilizing political and socioeconomic changes that result in educational systems in disrepair or in need of major reform;
2. The database will be designed along four general categories: early childhood/preschool, primary, secondary, and higher education;
3. For the first two years of the project, staff will initially focus on collecting materials in suggested areas such as refugee education and educational finance; and
4. Data will be accessible via Internet servers such as the World Wide Web (WWW) and Gopher.

GINIE has successfully completed its task order requirements and provided additional technical features that make the end product far superior to what was originally intended. How each of these objectives has been met is described as follows.

Objective 1: GINIE will build a database/repository to make educational information available to either of two categories of 'nation in crisis:' those affected by armed conflict and those affected by rapid and often destabilizing political and socioeconomic changes that result in educational systems in disrepair or in need of major reform.

GINIE has designed and built a database unique in its concentration of materials related to education in nations in crisis and transition. It provides materials via topic specific sub-websites or through a search engine. To perform this objective entailed the purchase and installation of computer hardware and software as well as the procurement of dedicated office space that could be wired with the appropriate computer ports. For the first two years of the project, good web development tools were not available so staff hand-coded the html for the web sites, a time intensive task. Nevertheless, the database is searchable and materials can be down loaded to someone's personal computer. It is also fast and easy to submit materials from a PC or disk to the GINIE database via the website.

Flexibility is key to the effective and efficient usage of the site. In addition to the focused topic sites, GINIE materials can be researched and found via an on-line search engine. This was designed and incorporated into the web site to allow for keyword searches and improve the capacity of the database to return relevant documents. At this point, hundreds of records are included in the database. Many more materials have been submitted to GINIE. These have not been included yet due to poor quality that prevents digitization, poor character recognition after scanning, lack of staff for digitizing materials, lack of staff for translating non-English materials, or file size being too large to put on-line.

The collection continues to grow, however, as word about GINIE continues to spread. For example, when Dr. Seth Spaulding was in the Kyrgyz Republic Nov./Dec. 1996 and in Sept./Oct. 1997 working on Asian Development Bank projects, he distributed information about GINIE. As an outgrowth of this work, the UNHCR Conflict Resolution project in the republic has been sending their materials and reports for inclusion in GINIE.

Objective 2: The database will be designed along four general categories: early childhood/preschool, primary, secondary, and higher education;

Objective 3: For the first two years of the project, staff will initially focus on collecting materials in suggested areas such as refugee education and educational finance;

Throughout the development cycle, faculty consulted with field personnel and received feedback that they ensured was incorporated into the site. Although the original design would have simply divided the site into Preschool - Higher Education areas with a focus on refugee education and educational finance, as the project developed field personnel requested that these initial areas of concentration be adapted to better meet their immediate needs. They requested and GINIE staff and volunteers responded with special topic subsites for comprehensive and rapid access to materials such as Land Mine Awareness Education (LMAE), the Program for Education for Emergencies and Reconstruction (PEER), Education for Peace and Reconciliation, and Trauma and Disability Education. These sites not only provide rapid access to materials stored in GINIE, but also provide organized links to the websites of agencies and organizations that have additional materials on these topics. Some, like the LMAE site, include the names and contact information of people who are willing to assist others. The LMAE site was also designed to be useful to the general public. It contains sections like the "Stories" and a "Photo Gallery" for people to read the personal stories of people who work with land mine survivors in the field.

Materials are also organized by country. For example, under Bosnia-Herzegovina the following can be found: a country profile including links to information about the culture, economy, government, history, language, maps, news, people, transportation, and weather; information related to the recovery and growth in education, including papers related to policy and planning, higher education, and teacher development; links to educational organizations; a contact list; and links to the on-line conferences. There are 21 countries currently with active links to these kinds of materials listed on the GINIE countries site. Access to additional resources related to nations in crisis and transition is also available via the 'Crisis Links' webpage that organizes links by NGOs, Disaster Assistance, Resources (by publication and by nation), and Conflict Resolution.

Objective 4: Data will be accessible via Internet servers such as the World Wide Web (WWW) and Gopher.

On the technical requirements side, at the time that the task order was issued, Gopher was widely used to obtain materials via the Internet. During the GINIE development cycle, however, world-wide use of the WWW increased substantially indicating that this was the preferred method of accessing information on the Internet. GINIE staff designed the site to accommodate this and to take advantage of the ease of hyperlinking to sites with related content. Because field personnel expressed that their access to the Internet was frequently limited when working in the field, GINIE implemented additional means to disseminate information. An e-mail system was established that was accessible with any mail program or from the web page. Print materials were distributed via e-mail, land mail, and fax. A brochure was designed and distributed that listed the e-mail and land mail addresses, key contact personnel, and fax and telephone numbers. To date, multiple means have been used to make contact and distribute information depending on user needs.

Additional features were designed and incorporated into GINIE in order to meet the needs of professionals who required immediate information or personal contact. On-line conferences and listservs were designed as prototypes for the development of communication systems for professional networks. They were decommissioned in July 1997 in anticipation of a major restructuring and marketing effort with IEQ II and GINIE. Funding has not yet come through for this effort. Although additional topic-specific conferences can be added, to date the conferences have included Land Mine Awareness Education, the Bosnian Education Working Group, US-Bosnia School and Community Development, OBNOVA, Displaced Workers and Demobilized Military, and the USAID/IEQ Project.

Dissemination of Information

This section is two-fold. The first section addressed the informal and formal methods used to disseminate information about GINIE and the resources it contains. The second deals briefly with the dissemination of information contained within GINIE including its support for professional dialogue among professionals. This second section is covered in more detail under utilization.

Dissemination of Information about GINIE

Because GINIE is in the prototype phase, no formal, wide-scale promotion campaign or publicity plan are on record to inform potential users and train them in its use. However, some materials have been developed and distributed that provided publicity for the project. These efforts need to be formalized and expanded upon. Additional promotional activities have been conducted by the faculty, associates and users.

In particular, a brochure was produced in-house and printed using a laser printer and attractively designed paper. This brochure, included as Appendix A, explains GINIE's purpose, mission, and structure to potential users and funding agencies. Copies were distributed by various GINIE faculty, staff and participants. Brochures have been distributed internationally in Bosnia-Herzegovina, Thailand, Kyrgyz Republic, and Geneva as well as nationally in New York to UN agencies and in Washington, DC to US government agencies and NGOs.

Individual components of GINIE were also publicized. A book about Landmine Awareness Education was produced for those without on-line access and was used by IBE and UNESCO.

Additionally, two major symposia presentations related to GINIE were made at the Comparative International Education Studies (CIES) conference in Williamsburg, Virginia in March 1996.

Dissemination of Information Contained within GINIE, including the Professional Dialogue Process:

The information that GINIE distributes is set up on two different computers. The actual GINIE web pages and the organized and annotated links to other Internet sites are housed on a University of Pittsburgh UNIX computer. The database materials, the on-line conferences, and the procedure for field personnel to upload documents to the database are housed on a Macintosh server located in a GINIE office. Other computers are used by GINIE staff and volunteers for web page construction, scanning and up-loading materials, production, communication, and project administration. This section addresses the distribution of materials provided by GINIE as well as the promotion and outreach activities conducted by GINIE faculty, staff, and associates.

The beauty of using a web service to distribute information is that electronic transfer can be much faster than paper delivery and is often possible when the physical transfer of materials may be dangerous or impossible. Additionally, electronic data transfer will become increasingly important in the next few years for missions and field personnel working in nations in crisis or transition. Portable computers that can

quickly and easily link to the Internet via cell phones, digital phones, cable TV systems, and satellite (traditional and low orbit) downlinks will become prevalent.

The GINIE distribution system is designed to be flexible and can accommodate differences in technological access. If someone accesses GINIE via the World Wide Web (WWW), they point their browsers to the URL (Universal Resource Locator) <http://www.pitt.edu/~GINIE>. When someone accesses the GINIE home page and links to subsequent pages, the information that they see is downloaded or transferred to their computer. When they search the database or request an entire document that has been described on one of the topic pages, they can choose the manner in which documents may be downloaded to their computer. In many cases, print materials may be transferred as plain text files or PDF files which show the original appearance of the document including any graphics, photographs, or color. If someone does not have access to the WWW, they can request materials to be sent to them electronically via e-mail or fax, or in print via land mail or courier services. Future endeavors should examine the feasibility of producing and distributing the collection on CD-ROMs or DVDs in order to provide a stable format for access by professionals working in the field.

For access to non-print or copyrighted materials (video tapes, posters, T-shirt, and books), addresses and contact information are also provided. When available, purchase or rental information is included.

Correspondence can be handled multiple ways. On the website is a general GINIE e-mail address to which users can send messages which are then forwarded by the Project Manager to the appropriate staff person. Additionally, contact information including addresses, telephone numbers, fax numbers, and e-mail links are listed for individual members of the GINIE team.

One of the most important design features of GINIE is a fast and easy procedure by which field personnel can transfer (upload) their files to the GINIE database. Following the step-by-step on-screen instructions, users can send files directly from their computer to the GINIE database. Currently, there are hundreds of records in the GINIE database.

Professional Dialogue

In addition to the acquisition of documents, GINIE encouraged professional dialogue for these groups of professionals: donor groups, international professionals working in nations in crisis and transition, and education professionals working in country. In the initial stages of GINIE's development, a donor group meeting was held in Pittsburgh in January 1996. At the time, the initial hand-coded website was demonstrated. Two professional dialogue activities were initiated following that meeting.

First, regular e-mail contact was established with UNICEF/Zagreb. At the time, no Internet connections were available in Bosnia-Herzegovina (BiH). As Internet connections began to be more available, GINIE established e-mail contact with UNICEF/Sarajevo and the federal Ministry of Education. The University of Pittsburgh later established a field office in Sarajevo and GINIE's responsibilities were transferred to the field.

Unfortunately, few documents were collected for GINIE during this time because: a) weak lines and servers made electronic document transfer extremely difficult; b) high turn-over rates in the international agencies and the ministry made even simple contact information difficult to keep updated; c) GINIE operated as a voluntary humanitarian assistance activity without institutional authority; and d) GINIE's primary function, to lower the information and transaction costs of education professionals, contradicted the primary function of local project management efficiency because it imposed costs on the organization without reward at both the project and institution levels. Most field personnel thought GINIE was a great idea but could not commit any time to it. In the future in similar situations, incentives for participation should be built into the process from the beginning.

The second professional dialogue activity was initiated by UNICEF in an effort to establish outreach activities through GINIE. UNICEF sponsored a trip by the permanent Secretary of Education for Bosnia-Herzegovina in early February 1996. Secretary Srebren Dizdar met with local education professionals, community development groups, and ethnic and heritage groups. In October 1996, he returned to Pittsburgh as the head of a World Bank team of fourteen education professionals from BiH. The dialogue which had been established on the first visit was extended to more schools. GINIE's outreach efforts through Apollonet were launched at that time.

On the technology side, GINIE had established six interactive conference systems as prototypes on the website. The systems not only aided data collection and outreach, but also served to develop professional networks. Users could post news, ask questions, and get feedback from other professionals. The following areas were chosen in collaboration with field personnel who requested these topics:

1. Apollo/Bosnia: US-Bosnia School and Community Development
2. BEWG: Bosnian Education Working Group
3. Displaced Workers and Demobilized Military: Ideas and experiences in developing retraining and education programs
4. Emergency Response Network/LMAE: Rapid responses to inquiries about land mine awareness education
5. OBNOVA: Bosnian teacher education renewal
6. USAID/IEQ Project: Improving educational quality project

To date, usage of the conferences has been virtually non-existent. Future efforts, therefore, should concentrate on publicizing these valuable tools and promoting their on-going use. For the Bosnian related conferences, this may be attributed to the lack of access to computer technology and/or to the Internet by the Bosnians and the Apollo business community and school district. Once technology and access became available during 1997, the systems were unreliable and contact was sporadic. By late 1997, equipment and access had increased but consistency remained a problem.

For the other conferences, lack of use may be attributed to the lack of publicity and promotion specifically geared towards potential users, lack of web access for potential users in field settings, lack of a wide-scale needs assessment to determine interest in this service by potential users, and the trend within these kinds of services where most participants are 'lurkers' (people who are interested in reading what others say but don't have the time or choose not to contribute themselves). Furthermore, the requirement that users log-in using a password is a disincentive. It not only requires additional steps, but also takes more time. Furthermore, if users have been in the field for some time and don't have consistent access to the WWW, they may forget their passwords.

Additionally, field personnel have reported that in-person or telephone contact is needed first, with e-mail exchanges used for follow-up. Others felt that their time is stretched to the limit already and that contributing to an on-going information exchange is something they cannot afford to do, particularly if they are overwhelmed with e-mail messages as are many other professionals in this information age. Some felt that these types of dialogues are novelties that they would be interested in exploring when they have time or outside their normal, daily duties. Furthermore, the uncertainty and slow speed of Internet access in the field made telephone contact frequently more efficient although more expensive. Incentives and support from their agencies is needed to establish and maintain exchanges, such as making evidence of this kind of collaboration with peers be a positive part of their performance evaluations.

In the future, GINIE should concentrate on one or two conference sites of most interest to international agencies with projects in the field. Staff must be assigned to promoting the use of the sites and interacting with those who do participate.

Complimentary Projects:

Faculty leveraged multiple resources to benefit the GINIE collection and build international relationships. They fostered collaboration on complimentary projects being conducted by the University of Pittsburgh and the Institute for International Studies in Education with results such as new professional networks and materials for the database collection. These other projects were chosen for inclusion because they compliment and enhance the efforts of GINIE components.

Just a few examples include:

- a UNICEF funded technical paper for education information networks in BiH,
- a World Bank funded technical paper on education finance in BiH,
- a UNESCO funded seminar on education finance in BiH in Dubrovnik in October 1997,
- and a Pennsylvania Department of Education funded project to build a digitized object repository for teacher designed curricula materials.

GINIE Staff and Responsibilities

Although the GINIE project started with the goal of developing a prototype for an electronically distributed database dealing with education in nations in crisis and transition, it expanded into a multi-level

information and communications system comprising the document database, websites, interagency working groups, outreach, technical assistance, and interagency/interdepartmental collaborative projects. Each of these efforts is labor intensive with an enormous time commitment attributed to the design and development of the technology that was the foundation for and supported the other efforts.

That so much was accomplished over a two year period with minimal staffing and state-of-the-art but unproven technology and software is extraordinary and bears testimony to the creativity and dedication of the faculty, staff, and volunteers.

Starting in October 1995, GINIE staff consisted of two graduate student assistants working twenty hours per week with a third graduate student added in May 1996. Two University of Pittsburgh faculty provided part-time project oversight. Volunteers with an interest in the use of the Internet for education or issues related to nations in crises donated untold hours of time. Descriptions of faculty, staff, and volunteers as well as their project responsibilities are provided in *Appendix D: Staff and Responsibilities*.

The project has benefited tremendously from the interest and dedication of its student workers and volunteers. Students provided technical training and support for each other, particularly on the use of new software and on web page construction. The semi-annual reports show that the student positions experienced some turnover throughout the life of the project, with openings being filled by dedicated volunteers. This helped to provide continuity to important subsets of the project, in particular the subsites for Land Mine Awareness Education, Education for Peace and Reconciliation, and the Programme for Education for Emergencies and Reconstruction.

Regarding volunteers, the university setting and the faculty's close working relationships with other academic departments have provided important human resources at little cost to the project. In particular, students from programs in educational administration, instructional design and technology, instruction and learning, public and international affairs, and international policy studies have brought their interests and expertise to benefit GINIE. Unfortunately, the use of volunteers whose primary goals are the completion of their academic degrees has resulted in some inconsistency and incomplete endeavors. Greater direct financial support would alleviate this problem. On the other hand, many of the graduate students are professionals who are back in school for either a terminal degree or continuing education. They are the next generation of development professionals and benefit both the project and themselves by getting 'hands-on' experience.

GINIE also benefited greatly from the expertise and professional networks that faculty brought to the project. In addition at no cost to GINIE, agency personnel contributed their expertise by actively collaborating on the design of GINIE webpages and contributing resources to the collection.

As noted previously, faculty also fostered important collaborations with complimentary projects which resulted in additional resources for GINIE users and expanded the usefulness of the site. For example, faculty associates contributed technical papers to the database.

Summary

GINIE has been developed as a lean, flexible, multi-purpose system that serves to provide access to information and people related to the provision of education to nations in crisis and transition. It supports the efforts of humanitarian agencies that seek to aid nations in their move towards democracy and self-sustaining economies. It has been and continues to be responsive to its users by coordinating efforts of staff and volunteers to design and build projects related to the GINIE goal and objectives. It also responds to the needs of the international community by facilitating the coordination of donor organizations and governmental agencies. Finally, it has used the Internet to support new ways of thinking about co-development networks that support both professionals learning from each other and teaching the next generation of international and regional development professionals.

Section 2: Utilization Characteristics of GINIE

Introduction

This section of the evaluation considers the issue of who might use GINIE and how they might take advantage of the various features of the project. Now that the prototype has been successfully built, it provides information regarding the second question that was initially posed, "Who can use GINIE and how can they use its resources?"

It is essential, however, to understand the nature of the Internet both as a distributed information service and one with an explosive development and growth rate. As a distributed information system, information (print or media) is stored initially in digital form on the GINIE server; when another computer connects to GINIE, it transfers a copy of that data.

One way the Internet works is that other computers or servers may download information from the GINIE server and store the information locally in order to reduce transmission times. Equipment related to frequent users may be particularly susceptible to this process. GINIE cannot track information once it has been downloaded to another computer or server nor determine the type or quantity of use.

Additionally, search engines are used frequently by many Internet users. By doing a subject search using a standard search engine and checking the results, documents contained in GINIE can be accessed directly. *This by-passes the GINIE search engine and tracking system.* In other words, this also prevents GINIE from measuring the use of particular documents and the number of users.

Finally, the explosive development of Internet technology can mean a one-year obsolescence cycle not only for the technology itself but also for the measures used to evaluate it. For example, counters and 'hits' were helpful indicators when users entered a website through a home page. Today, search engines can link users directly to subsections of a site, bypassing such measures. New search engines are not only forcing new evaluation technologies, but they are also forcing a rethinking of evaluation measures.

Utilization and Participation

The utilization and participation by GINIE users cannot be evaluated by the type and quantity of data that could be obtained and monitored by a project of this scope. The server may be able to track and generate generic reports concerning use of the database. It does not, however, differentiate between external users and GINIE staff accessing the site for production, development, or promotional purposes. For other kinds of information such as requests for materials, technical assistance, or contacts with content area professionals, a procedure was implemented for responding to inquiries sent to the "GINIE Account" and a general "Resource Account" was established as an archive for e-mail correspondence.

Database Tracking

Although still under development at that time, the official launch date for GINIE was considered to be February 1996. In April 1996, a major revision of the GINIE shell and home page was implemented in response to feedback from users. The database was later moved to a computer purchased by GINIE and data collection began.

The utilization of the GINIE database was tracked and reports were generated by free shareware (software) called "ServerStat." This tracking system was established in May 1997 once the database was ready to be implemented publicly.

Usage statistics prior to May 1997 were not available because until that date, the database had been served from a University of Pittsburgh UNIX computer, not a GINIE computer. Usage tracking was not possible. Although the database is now served from the GINIE computer, the amount and kinds of information that can be tracked are limited, however. GINIE was able to generate reports concerning the numbers of computers per country or type of US institution that access GINIE and the average sizes of files that were searched from the GINIE database each day. The larger the file size, the greater the amount of relevant information was available. Little beyond that can be interpreted from this information. Another tracking mechanism, the Webstar logs, shows the path that a user takes through the server and what software is used to upload or search the GINIE sites. The huge quantity of unorganized information that these logs provide cannot be interpreted nor evaluated within the scope of this evaluation.

Unfortunately, the primary technical person working for GINIE had accepted a job offer out of town and could not be replaced while funding renewal was still pending. Additionally, because the main GINIE webpages remain on Pitt UNIX computers, GINIE cannot monitor usage of the main website.

Of interest, however, are the following countries that have accessed the database including: Andorra, Australia, Bosnia-Herzegovina, Brazil,

Canada, Chile, Denmark, Finland,
France, Germany, Israel, Italy,
Japan, Mexico, Philippines, Singapore,
South Africa, Spain, Sweden, Ukrainian SSR,
United Kingdom, United States.

Additional inquiries and correspondence have been received from:

Australia, Burundi, Cambodia, Djibouti,
Egypt, Holland, Iraq, Kenya,
Kyrgistan, Lebanon, Liberia, Laos,
Macedonia, Mozambique, New Zealand, Norway,
Palestine, Peoples Republic of China, Rwanda,
Sierra Leone, Switzerland, Tajikstan, Taiwan,
Thailand, Zambia, Zimbabwe, Yemen.

One difficulty with interpreting the computers listed under "Domain Name" in the server reports is that more specific information cannot be obtained concerning who the user or users were. More than one user may share one computer, especially in the field. The only way to track that information would be to require any user to log on to GINIE with a username and a password. This would inhibit use and increase the time it takes to get to relevant information, both of which are unacceptable.

A substantial number of computers are also listed as 'unresolved.' The server is unable to track information concerning computers that are protected by 'firewalls,' many of which may belong to US or international agencies. Additionally, Tango is not capable of tracking the use of links from GINIE to other sites or web servers. It only tracks access to the GINIE database. This is important to note because access to or from project sites, such as LMAE and PEER, cannot be tracked. They may be accessed and used through bookmark files or common search engines.

Getting a quantifiable picture of GINIE usage is complicated by the recent establishment of a mirror site for GINIE in Taiwan. No data about the number and type of users from that server is yet available. GINIE is not able to track usage on this computer nor is there an agreement for this type of tracking to be supported. The current arrangement is voluntary at no cost to GINIE in terms of equipment or management.

Inquiries and Responses: The GINIE and Resource Accounts

In addition to print and e-mail correspondence conducted by GINIE faculty, staff, and volunteers, two major accounts were established for GINIE. One, the "GINIE Account," is for external inquiries and is listed on the website. Anyone can send mail to it by clicking on the link. This account is also publicized on the brochure and anyone with access to e-mail can send messages to GINIE. The second, a "Resource Account," is a generic computer e-mail account for internal use that was established in 1997 to archive all electronic-mail correspondence. It contains e-mail organized into the following categories: ABEL, BEACON, Bosnia, Children with Disabilities, Contributors Guide, Copyright, Database, Edupage, GINIE Administration, GINIE Computer, GINIE Meetings, GINIE Schedules, GINIE2, General Information Requests, IAWG, IEQ, Job Descriptions, Landmine Awareness Education, Lebanon, Peace and Reconciliation, PEER (Program for Education for Emergencies and Reconstruction), Procurement, Iraq, Reports, Taiwan, UNICEF, Websites, Weekly Reports, Reports & Evaluation, and Sent Mail organized by month.

A procedure was implemented on July 25, 1997 whereby the Technical Project Manager was to check the GINIE e-mail account and forward all incoming mail to the person who handled a particular content area such as LMAE or PEER, and to the Resource account. All out-going mail related to GINIE was to be copied to the Resource Account. One of the Research Associates was assigned the task of organizing the messages into the folders listed above.

Although a great deal of historical information is contained in the Resource Account, an in-depth analysis is beyond the scope of this evaluation. Additionally, staff and volunteers were inconsistent about forwarding all correspondence for archive purposes. Sometimes an incomplete picture is available when a request is archived but the response is not or vice versa.

Sufficient information is available, however, to make the following determinations from the e-mail correspondence. Faculty, staff, and volunteers processed a variety of correspondence, including but not limited to requests:

- for information contained in the database,

- for information similar to that contained in the database,
- for permission to use information or media for presentation at conferences,
- for professional contacts,
- for how to send material for inclusion in GINIE,
- and for assistance using GINIE.

Because of the limitations of the technology in providing an accurate picture of impact of total usage to date, anecdotal reports from key users have been useful and are included within the final section of this evaluation.

GINIE was a prototype being designed from the ground up. At the time of its development, the technology and software were so new that capabilities for record keeping were unknown to the student staff. Since student staff were not that familiar with either the technology or software, nor was formal, vendor supplied training purchased, a usage data collection plan was not generated in conjunction with the funding agency. As a result, the data available are limited.

Impact

One of the most important outcomes of the GINIE project was its role as a coordinator that facilitated partnerships and contacts among donors. Furthermore, the limited statistics that the technology provided cannot render an accurate picture of the impact of these partnerships nor the usage of other GINIE services. Anecdotal reports are helpful in this regard. Two key people who contributed to the development of GINIE were Robert Fuderich, UNICEF Education Advisor, and Srebren Dizdar, then Permanent Secretary in the Ministry of Education, Science, Culture and Sports and President of the UNESCO National Commission for Bosnia-Herzegovina. Additionally, Drs. Maureen McClure and Seth Spaulding were instrumental in communicating feedback from their numerous international contacts to the GINIE technical and development staff and ensuring that the project adapted in response to users' needs. Additionally, the e-mail correspondence that staff and volunteers received was collected and saved in an electronic resource account.

Role as Facilitator

GINIE has played a key role in facilitating the coordination and partnership among and between donors. Some of the organizations that have participated in GINIE by providing materials, providing feedback on the site, or linking to the site include INTRAC, UNESCO (IBE, PEER, EHA), UNDHA, UNDOS, UNHCR, UNICEF, UNOSOM, Vietnam Veterans of America Foundation, Humanitarian Foundation of People against Landmines, Canadian Red Cross, Cambodian Mine Awareness Centre, UDUK, USAID, Florida State University, Subah Belleh, CARE, Save the Children, Feed the Children, IEQ, ILO, JASPA, Somali National University, UNDP, Somali Ministry of National Planning, Ministry of Labour and Social Affairs, World Vision International, Lao Ministry of Labor and Social Welfare, World Bank, Somalia Ministry of Education, International Monetary Fund, Organization for Mine Clearance and Afghan Rehabilitation, Norwegian People's Aid, Cooperazione Italiana, Mine Awareness Training Team, Cambodian Mine Action Centre, Land Mine Awareness Programme, UNIRC, PAM, CCES, IDAS, Fuerza Armada De El Salvador, Fuerza Aerea De El Salvador, and Handicap International.

One way GINIE has been particularly successful is with its consultation and involvement with the Inter-Agency Working Group (IAWG) for Humanitarian and Refugee Education in Geneva. IAWG is a forum of international agencies and NGOs concerned with improving educational quality through professional and community development in nations in crisis and rapid transition. In collaboration with USAID and IBE, GINIE created a web page reflecting the objectives and tasks of the working group and agencies. The USAID/IBE collaboration resulted in the project sites for Land Mine Awareness Education, PEER, Peace and Reconciliation, and Demobilization. The project sites were designed in response to field professionals who wanted rapid access to 'information packages' that contained documents and described the context in which the materials were developed.

GINIE's capacity to provide these types of endeavors is an important strength. This prototype shows how the technology can be quickly adapted in response to stated needs.

Role as an International Model

Drs. McClure and Spaulding, Co-Directors of GINIE, bring years of experience providing practical service and conducting scholarly research in educational development throughout the world. Over the past two years, they have distributed GINIE brochures to educational and humanitarian relief organizations in many countries throughout Europe, the Middle East, and the Far East. In their related work, they

promoted and demonstrated the project to educators, relief workers, government officials, legislators, and policy makers and obtained their feedback to inform the development of GINIE.

As a result of their efforts, GINIE is being used as model for the design of country-specific, native language educational repositories. Dr. Spaulding has reported recent efforts by the Ministry of Education in Thailand and the Soros Foundation in the Kyrgyz Republic. Additionally, Dr. McClure ensured the development of a mirror site in Taiwan and is working on a mirror site in Bosnia-Herzegovina.

GINIE has incredible potential for expanding to include a concentration in basic education. Partnership efforts, such as that with PEN-DOR, the Pennsylvania Education Network Digital Object Repository, will provide GINIE users with access to an incredible wealth of basic education materials designed by teachers for use in the classroom. In turn, Pennsylvania educators and students will gain access to international contacts who can help bring the world into their classrooms and expand their exposure to other cultures. In this manner, both projects leverage scarce resources for mutual benefit.

Section 3: Conclusions and Recommendations

In this section, the evaluation attempts to answer the question, "How can GINIE better meet its users' needs in a cost effective, efficient manner?" It looks at the development and promotion of the project, the webpage design, and the potential for greater utilization and impact.

Development and Promotion

GINIE is an important and unique resource. It not only provides a searchable repository of select information, but with its conference system also provides an interactive capability for mutual support and assistance for busy professionals.

The project has a strong technical foundation and core content collection that can be built upon and expanded easily. Its conference system is conceptually strong, but lacks the support of key personnel who would dedicate themselves to establishing and fostering dialogues among their peers in the field.

The professional networks with which the project is affiliated could be tapped to fulfill this function.

Ongoing needs analyses should inform future directions taken by the project. Additionally, a formal promotional campaign should be designed and implemented.

In summary, the strengths of the project include:

- The database design is strong and includes easy to use submission and search procedures;
- It connects experts to each other;
- Expertise that is documented can be made publicly available;
- Professional networks can be established among educators working in fragile situations;
- It provides a source of consistency, continuity, and stability for those working in unstable environments;
- It was and continues to be designed actively with field personnel;
- It is responsive to user requests and needs;
- It coordinates resources from a variety of sources;
- It concentrates resources into easy to use, areas such as theme sites like Education for Peace and Reconciliation or under country casebooks;
- Paid staff are dedicated and hard working, contributing hours of volunteer overtime;
- Volunteer interest and motivation has expanded the capabilities and provision of services;
- And its usage has been steadily increasing even though there has not been a formal promotional campaign.

To make GINIE more user-friendly and efficient, there are several weaknesses that need to be addressed. *Most of these issues could be resolved easily with consistent staffing, personnel training and sufficient levels of funding.* Others, such as an inability to determine the demographics of those who use GINIE, either cannot be addressed with the technology available or would slow access to an unacceptable level.

Weaknesses that should be addressed include:

- The project lacked a formal promotion and public relations plan and had too few funds available to disseminate information about GINIE and solicit additional support and contributions;
- There is a lack of publicity directed toward field personnel not involved in project formation;
- There is insufficient awareness among potential contributors, both financial and content-oriented;
- It lacks a formal system of long-term commitments that ensure on-going contributions to the database;
- A needs analysis should be conducted that surveys field workers' requirements and provides data concerning Internet and computer access, including details about range and speed of access;
- Working with a new medium requires large learning curves on technology and content for ever-changing student staff, resulting in inefficiencies;
- The lack of sufficient office space, supplies, staff, and technology contributed to staff inefficiency and the scarcity of internal documentation;

- An almost exclusive reliance over the life of the project on student workers and volunteers who started with limited or no production skills and for some, English was a second language which resulted in numerous grammatical, spelling, and information flow errors;
- Inexperienced staff resulted in delayed problem resolution for the level of rapid trouble-shooting required by computer and Internet technology;
- It lacked sufficient technical and design expertise for a project of this magnitude;
- The specific interests of volunteers, requests by field personnel, and the need to adapt to changes in technology sometimes resulted in deviations from the core focus of a database and conference system that spread dedicated staff resources too thinly.

Webpage Design and Layout

GINIE strives to be a site that is fast and easy to use, well organized in a logical fashion, and promotes a sense of calm and well-being. To this end, graphic design elements and color selections provide an attractive environment for users. Font selections are easy to read. The amount of information per page is kept to a minimum.

On the other hand, the various webpages are inconsistent in their overall design and in the types and amounts of information available within subsections. Some design elements, such as the use of an animated dandelion on several different pages, are obscure and incomprehensible and lead to longer loading times. No explanation is readily accessible as to what this particular symbol is intended to represent.

Going to various parts of the site, it is evident that different developers were responsible. The site lacks a comprehensive design strategy. This lack of consistency should be addressed.

Although links to other sites are organized by subtopics, in many cases no explanation is given that describes what the user will find if he/she activates the link. Short annotations would resolve this problem. Many of the design and layout difficulties could be remedied by someone with strong communication and instructional design skills working in conjunction with a graphic artist. A web designer could assist with writing code that decreases the download time and with establishing and implementing a consistent, attractive look complete with appropriate and meaningful graphic elements. Plans for future staffing patterns should consider this.

Potential Utilization

To sustain interest, it is essential to continue to build the collection and publicize recent additions so that when users return to the site, they find something new and valuable. The support of information officers in participating agencies and organizations should be solicited to provide an ongoing source of materials and to communicate information about GINIE within their normal communication systems. This process could be automated with e-mail reminders being sent monthly.

Additionally, the project needs a core group of field personnel to commit to generating conference topics and sustaining dialogue. A needs analysis should be conducted to determine the level of access to technology that is available to professionals in the field. Their administrators need to encourage their use of and participation in the conferences. They also need to be made aware of how these types of professional exchanges help maximize scarce resources by sharing expertise among agencies.

Robert Fuderich, Education Advisor for UNICEF, has advised the GINIE project since its inception. He feels that GINIE provides an important service by filling the information gap that exists from a lack of journals devoted to education in emergency situations. Through its collaborations and multiple relationships, GINIE also helps to bridge field personnel and academics. He also advised GINIE to concentrate on specific content areas such as Land Mine Awareness Education.

Most importantly, Fuderich and his staff mention GINIE to those who are involved in education during emergencies and copy their correspondence to Dr. McClure. This 'word of mouth' publicity provides GINIE with important new contacts and resources and helps GINIE to further refine its services to meet the needs of its users. Furthermore, they promoted GINIE to attendees at the UNICEF Workshop on Education in Emergencies and for Reconstruction in November 1997.

According to Fuderich, one of the greatest problems facing GINIE is that many field personnel still lack access to the WWW. Increasing numbers have access to e-mail, however, which makes the ability to deliver material electronically in different ways very important. At this time, e-mail access is also frequently erratic but expected to improve. Additionally, he anticipates greater use of WWW resources as access improves.

Fuderich also stated that agencies and personnel responsible for responding to emergencies must also understand the importance of education in emergencies. GINIE can provide a valuable service by containing and distributing resources that support this position. He suggested that one person in every agency that is involved with education in emergencies be converted to promote GINIE within his or her agency.

Offering a different perspective, Srebren Dizdar, former Permanent Secretary in the Ministry of Education, Science, Culture and Sports and President of the UNESCO National Commission for Bosnia-Herzegovina, has also been involved with and supportive of GINIE since its inception. He saw that this kind of resource is an important bridge to traditional approaches to education. He communicated that Bosnian educators were most interested in ways to interact with their colleagues in addition to obtaining information from a website. This knowledge led to the four topic areas for the BiH-related conferences. Unfortunately, a variety of factors have resulted in a low level of involvement. As conditions improve, interest may increase if supported and encouraged. As of early this year, access to the Internet was improving, even for many schools. Future efforts must concentrate on publicizing the Bosnian fora, helping them to work well, and responding to needs at the local level.

Dizdar felt that interactive, on-line conferences and their relaxed nature are very important. In particular, the ability to converse with others in a non-formal atmosphere is important. He saw GINIE as a living system that exists for the moment for its users when users have a need to be met. As Fuderich suggests, however, the lack of reliable and consistent access to technology and the Internet affect the ability of those who most need information and contacts to obtain that information and reach expert assistance quickly and easily.

Summary

In summary, GINIE is an excellent prototype that has many strengths upon which it can build. The weaknesses that resulted from technology or staff inexperience can be easily remedied. As Internet technology becomes more pervasive and accessible, greater promotional activities aimed at increasing the awareness of potential GINIE users is essential to its continued success.

It is also essential that information officers and field supervisors from USAID, UN agencies, and NGOs contribute to and participate in any future plans for promoting GINIE. Communications must be designed for relevant and maximum impact. Elements of this plan should include print materials such as brochures or personalized letters that are mailed and hand delivered, presentations at conferences, continued faculty and staff participation in working groups, e-mail correspondence, press releases, agency directives, and web-site appeals and links. This promotional campaign should be directed toward USAID personnel, UN agencies, NGOs and others involved in the provision of educational services in nations in crisis or in transition.

Leaders in the field and agency personnel supervisors should also be tapped to help solicit contributions to the database, to participate in or moderate the on-line conferences, and to utilize GINIE contacts across agencies.

GINIE direction, in turn, should focus more clearly on core activities with staff augmented so that there are professionals assigned to developing each activity. Now that GINIE has developed the prototype, it must focus and concentrate its efforts publicizing the results and on encouraging participation in the system.

The need to determine current levels of access to appropriate technology cannot be ignored. One person relayed that any time he wanted to check his e-mail or research the Internet, he had to travel to a computer facility located at a UN peace keeping force facility and had to obtain prior permission and a pass to use a computer. State-based personnel may not realize the difficulties their colleagues face with trying to access technology.

Regardless the state of technology in the field, most agencies are increasing their use of e-mail.

Therefore, interaction among professionals might be better provided by multiple levels of access. For example, e-mail 'brokering' may best help in the initial stages of network building. Instead of the password accessible conferences, listservs may best support professional development through shared teaching and learning. Users would subscribe to the service or be subscribed by their institutions or agencies. E-mail messages containing news, requesting information, or discussing topics would be automatically delivered to the users accounts. A user could then choose to read them at his or her leisure and respond as desired. Essential to the success of this process is a list moderator who is responsible for initiating and maintaining relevant discussions, monitoring member behavior, facilitating requests for information, and

making contacts. On the other hand, the on-line conferences might facilitate policy dialogue and donor coordination across agencies in the US, Europe, and Asia.

APPENDICES

Appendices A: GINIE Promotional Materials

Appendices B: Examples of GINIE Web Pages

The enclosed web pages are a very small selection. They were chosen to show the range of materials and linkages provided over the life of the project.

Appendices C: Interview Questions

The following presents the data collection tools that were used to solicit input from some of the people who contributed significantly to GINIE.

Field Personnel:

The following questions were presented to key field personnel involved with the design, development, and formative evaluation of GINIE. Srebren Dizdar, former Permanent Secretary in the Ministry of Education, Science, Culture and Sports and President of the UNESCO National Commission for Bosnia-Herzegovina, and Robert Fuderich, Education Advisor/UNICEF, responded to the following:

1. "How did GINIE work for you?"
2. "Where should it go from here?"

These questions were the starting point for lengthy interviews where they expanded upon their memories and thoughts for the future of GINIE.

GINIE Student Staff:

The former and current GINIE Technical Project Managers, Patrick Tse and Ming-Quen Lin, were interviewed in person and by telephone during October and November 1997. The purpose of the interviews was to determine what informed the changes that occurred during the project development cycle, what logging and tracking capabilities were built into the system, and what their roles were. In December 1997, GINIE student staff with half-time assistantships were sent the following letter. They were Miki Fukuhara for Land Mine Awareness Education, Sera Kariuki for PEER, and Geowok Hwa for Disabilities Education.

Dear :

I am conducting an internal evaluation of the GINIE Project. As part of the evaluation, I am considering its formation, past and current utilization, and recommendations for the future. Your input would be very valuable in terms of your own experience and that of people you have worked with.

According to Dr. Maureen McClure, you are a key contact for GINIE and helped to guide its formation. I would therefore appreciate if you would answer the following questions. Please respond at your earliest convenience either to this e-mail or via fax at (412) 624-2609. I can also be reached via telephone at (412) 823-5002. I would greatly appreciate hearing from you before December 12.

When answering the following questions, please consider that GINIE consists both in a digital form as a website and as an informational and support network for education professionals.

1. What have been the effects of your experiences with the GINIE Project?
2. Have you seen an increase in the effectiveness of local decision making as a result of information available from the GINIE database or as a result of the professional contacts that were facilitated through GINIE? Have you been able to more efficiently plan appropriate interventions? Please explain.
3. Describe at least three benefits and advantages of the GINIE Project? Why?
4. How has the GINIE project responded to and adapted to meet your needs?
5. What are the drawbacks of the GINIE Project? In what ways has it not met your needs? Why?

6. What recommendations would you make to improve the GINIE Project in the future? Furthermore, please list any additional types of materials that you would like to see included in the database.

7. Is there anyone else I should contact for information about how GINIE was used in the past or is being used currently? In particular, do you know of anyone Please provide the name, position, and either e-mail address or phone number of anyone on your staff or with whom you have worked who has used GINIE in the past.

Thank you for your assistance with this endeavor. I look forward to hearing from you soon.

Regards,

Karen

Appendices D: GINIE Staff and Responsibilities

The following list includes the staff and volunteers who held primary responsibilities over the duration of the project. The numbers after each description indicate the quarter in which they made contributions. These may be cross-referenced to the quarterly reports.

In addition, students also completed specific project tasks such as fostering international teacher and student e-mail exchanges particularly in Bosnia, researching alternative funding sources for international education efforts, soliciting funding, designing teacher/student projects for international collaboration, and coordinating a high school student exchange with Bosnia. Furthermore, numerous student and faculty volunteers participated on various aspects of the project.

Primary Staff:

Carolina Belalcazar, doctoral student in the International Development Education Program at the University of Pittsburgh. Her current research involves international comparisons of drug consumption laws and their implementation through drug prevention policies. In the past she has held the positions of Editor of the Journal of Social Sciences and Education, and Director of the Office of Publications and Information at the School of Social Sciences, Universidad Javeriana, Colombia. Currently, she is assistant to the directors of the Institute for International Studies in Education at the University of Pittsburgh. (4,5)

Helen Boyle, GINIE Research Associate, was one of the original authors of the GINIE proposal. Her research interest is in Islamic education and she is pursuing materials on refugee education in the Islamic world, especially Afghanistan, Palestine (West Bank and Gaza). She is also collecting trauma-relief materials produced after the Persian Gulf War for Kuwaiti civilians, especially children traumatized by the invasion. Helen has also worked extensively on the GINIE brochure, organized Pitt's two-part panel on nations in crisis at CIES in March 1996. (1, 2, 4)

Kristiina Errkila, GINIE Research Associate, has freely contributed her knowledge and expertise to the GINIE project since its inception. Kristiina's area of expertise is enterprise education, and her work for GINIE is focusing on researching the transition process from crisis to toward recovery. In addition, with her interest in enterprise development, Kristiina has begun researching creative ways to market GINIE and made a trip to New York city on behalf of GINIE to visit various UN outfits such as UNICEF, UNDP, DHA, to discuss possibilities for partnerships. (1, 2, 3, 4)

Miki Fukuhara, GINIE Research Associate, has volunteered enormous amounts of time to the GINIE project in multiple ways. Miki is currently in charge of GINIE's first joint program, the GINIE/IBE Landmine Awareness Education research project and developed the GINIE webpages and booklet for this project. Miki has also been involved in several other aspects of the project. She interviewed Dr. Srebren Dizdar (Permanent Secretary at the Ministry of Education, Science, Culture and Sports in Bosnia) and Dr. Gonzalo Retamal (IBE) and made homepages for both of them, on the GINIE website. Miki has explored avenues for collaboration with the World University Site in Austria and the Bosnian Student Club and has collected video information regarding war and children and has researched peace and reconstruction activities in Japan that followed World War II. (1, 2, 3, 4)

Lauren Hayes, IISE Administrative Officer, has assisted staff in all matters pertaining to the project, particularly in ordering materials and acting as liaison with the university administration on purchasing procedures and budgetary matters. Lauren has also assisted in planning meetings. (1, 2)

Hegazi Idrees, GINIE Research Associate and another valuable human resource has also volunteered time to research the provision of education to refugee populations in the Middle East, in particular the efforts to provide education to Palestinian refugees, one of the first and largest efforts at refugee education undertaken by development agencies. Specifically, Hegazi presented a paper on UNRWA's work in the Middle East at the CIES conference March 6-10, 1996. Hegazi graduated and accepted a job with UNESCO in August 1996.

Sera Kariuki, GINIE Research Associate, has been making contacts with people who are researching or working in the area of refugee education. Sera has put together a list of IDEP alumni to begin forging alliances with organizations outside of the university to support and sustain the GINIE initiative. She has also done Internet and library research on refugee education which has also generated good potential contacts for the project. Some of this information was pulled together in a paper for the CIES conference March 6-10, 1996. Currently, Sera due to a major interest in Africa as a region of research and a good source of materials for GINIE, is in the final stages of doing a needs assessment for a proposal to seek funding for GINIE node, to be located in Nairobi. She has also been working with the Technology Officer on various aspects of the project such as documentation procedures and documentation forms and is currently reviewing and abstracting the materials that have so far been collected. (1, 2, 3, 4)

Geok Hwa Kee, With a background in the education of young children with special needs, she designed, updated the web site for Trauma and Disability Education. All the links in this web site were chosen according to their relevancy to a specific topic instead of interface design. She also worked with several special educators on campus to help enrich the content of the web site: Dr. Louise Kaczmarek (Early Intervention - Department of Instruction and Learning), Dr. Boris Birmaher (The University Child and Family Center) and Dea Harris (Special Education Program - Dept. of Instruction and Learning). (3,4)

Lin Lin, GINIE Research Associate, is working on the China cluster for the GINIE project. She has translated the GINIE brochure into Chinese and is currently working on locating and collecting material on education in China, especially as it relates to the transition from a centralized to a more decentralized system. (1, 2)

Ming-Kuen Lin began as GINIE's new Project Manager instructional design/technology specialist in September of 1996. Ming maintains the GINIE website and the GINIE databases. He also manages the GINIE listservs and acts in a managerial capacity for the project as a whole. Upon joining the project, Ming continued work on the design of an on-line searchable database so that users did not need to try to track documents through a maize of websites. Ming oversaw the migration of the webserver to a second computer to ensure better system efficiency and speed. He also oversaw the system testing and some documents were moved from the web to the database. Document migration is ongoing under Ming's supervision. He has also set up a protocol so that all new documents are put directly into the on-line database. (2, 3, 4, 5)

Maureen McClure, GINIE Project Director, oversees the project operations, budget and staff. As director, Dr. McClure has focused on GINIE marketing and outreach activities, generating interest in and support for the GINIE project both at the University and the community levels. She has also acted as liaison with outside organizations such as USAID, the World University System and several UN organizations, particularly UNICEF and UNESCO/IBE, to generate support for GINIE and to solicit materials to put on-line. She also works with GINIE staff, making policy decisions related to the GINIE design, construction and overall operations. (1, 2, 3, 4)

Sophia Morote, She is a doctoral student in Higher Education Administration at the University of Pittsburgh, she also has a master degree in Computation in Finance from Carnegie Mellon University and a Master in Public Administration with concentration in Strategic Management. She designed and published new pages in Ginie, such as "What's New", Kyrgyz main page, UNESCO, USAID and others. Lastly she reviewed and fixed the links of the web-pages located in the Ginie web-server(ginie.sched.pitt.edu). (5)

Deena Philage, GINIE Research Associate, has also volunteered valuable time and expertise. In addition to her extensive work designing and editing the GINIE brochure, Deena has undertaken a technical support role, for the project, helping people to scan documents and edit materials on the Web. She is also working closely with the GINIE China cluster, and is currently co-authoring a paper on education in China. (1, 2)

Carmelita Portugal, an experienced librarian is another volunteer who has brought a wealth of valuable information and expertise to the GINIE project. She has been collecting useful materials from newspapers

and other sources for GINIE and she has provided expertise in the area of document classification systems. (1)

Michel Rakotomanana, GINIE Research Associate, is in charge of GINIE's Bosnia page. He has collected and abstracted materials from IISE's project work in Bosnia, and has extensively researched relevant links on the Web to Bosnia. He is currently designing the GINIE/Bosnia page and putting Bosnia-related materials on-line. (1, 2)

Seth Spaulding, GINIE Project PI and founder, was the director of the Institute for International Studies in Education until July 1996. Dr. Spaulding uses his extensive network of professional contacts to introduce GINIE to the international development community, to solicit future funding for GINIE and to facilitate document procurement. He oversees GINIE's operational, budget and staffing concerns, in conjunction with the GINIE project director and provides overall guidance and direction to the project. (1, 2, 3)

Patrick Tse, GINIE Research Associate and Project Manager, is the technical know-how behind GINIE. Patrick was one of the original proposal authors and currently acts both in the capacity of instructional design specialist and technology specialist. Patrick designed the GINIE website, the GINIE databases and has scanned and put most of the GINIE materials to date on line. He also managed the GINIE listservs and acted in a managerial capacity for the project as a whole. Patrick left the project in September 1996 for a job in the World Bank's education and technology department. (1, 2)

Arthur Tucker, Jr., Arthur A. Tucker, Jr. Is an Assistant Professor of Aerospace Studies (Military Sciences) at the University of Pittsburgh and Carnegie Mellon University. Current research project: Education and Specialized Training for Displaced Workers/Demobilized Military-An Investment in Human Resources, sponsored jointly by Global Information Network in Education (GINIE) at the University of Pittsburgh's Institute for International Studies in Education (IISE) and International Bureau of Education (IBE) at UNESCO in Geneva. (2,3)

Georgia Williams, During the fourth quarter of the GINIE project, I assisted the project manager with a variety of administrative and database-related duties. I also produced the fourth semi-annual and final reports. I completed my M.Ed in IDEP in 1997 and will complete my MAT at the end of the summer. (3,4,5).

Appendices E: References

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