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Problems: Access & training
connectivity
Facility
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DD

Project Narrative YBG STUDIO'S INTERNET PUBLISHING ACCESS PROGRAM (IPAP)

I. Project Purpose

IPAP addresses three distinct sets of problems:

- To assure that young people living in San Francisco, particularly those who live in underserved communities, have access to and training with new technological communication tools and the Internet so they can successfully compete in tomorrow's job market.
- To provide Internet connectivity to partnering schools along with training and ongoing support for teachers and parents so that they can foster the technological and artistic growth of the students.
- To enhance a centrally located facility, equipped with a state-of-the-art learning center and production lab by providing training and access to tools and techniques for producing content, both live and pre-produced.

A. The Need To Provide Access

Information and communications technology is a rapidly growing enterprise, particularly in the San Francisco Bay Area. More and more, a person's success in the job market is dependent on his or her ability to use new technology to communicate effectively, whether it is through the Internet, videoconferencing, or creating a multimedia presentation. In order to compete in tomorrow's workplace, today's youth must learn these skills that will carry them into the 21st century.

In 1990 more than one quarter of all households in San Francisco had incomes below 50% of the citywide median income. These households tended to be concentrated in certain areas of the city. There are 27 census tracts that qualified as Areas of Very-Low Income Concentration, located primarily in Chinatown-North Beach, South of Market, Tenderloin, Western Addition and the southeastern areas of the city. The residents of these areas are members of Hispanic, African American, Asian/Pacific Islander and Non-Hispanic Caucasian communities. The majority of school-aged children and teens in these neighborhoods attend public schools. The young people residing in these neighborhoods score considerably lower on standardized tests and have little or no access to facilities or programs that provide training and hands-on opportunities with technology. Most parents living in these communities struggle to make ends meet, and can neither afford a home computer nor training programs for themselves or their children.

The Yerba Buena Gardens Studio for Technology & the Arts (YBG Studio) is by definition a community-based non-profit organization, located in the South of Market neighborhood, adjacent to the Tenderloin, Chinatown/North Beach and Western Addition neighborhoods referred to above. Fpunded in 1992, the YBG Studio has been developing and implementing programming that introduces technology and the arts to Bay Area young people, particularly those living in underserved communities within San Francisco. YBG Studio is dedicated to exploring the role that emerging technologies can play as communication tools in the hands of young people. Our programs are unique in that we utilize new technological tools and resources for media production, while emphasizing artmaking as a reflection of history and contemporary culture. YBG Studio offers a learning experience that provides valuable skills to prepare students for the digital age.

YBG
Studio
(1992)

introduces
prog. of
technology
the arts

Even though the YBG Studio is located in one of the most ambitious redevelopment projects in the state of California, there is a large disparity between the socioeconomic status of the local residents and the new commerce that is coming in as a part of these redevelopment efforts. YBG Studio has been working closely with teachers from the San Francisco Unified School District (SFUSD), neighborhood non-profit organizations and afterschool programs, to find user-friendly ways in which they can integrate technology into their school community and provide

working with
SFUSD 1

greater access to these tools for at-risk young people, YBG Studio also trains teens to serve as mentors to younger children in their school and home communities.

Trains teenagers as mentors

IPAP's partners are committed to ensuring that the all families in San Francisco are provided with access to technology and ongoing opportunities to participate in educational programs that explore the relationship between technology and the arts while providing ongoing support to further these efforts. IPAP will provide the network infrastructure to allow partnering schools to collectively work on projects utilizing Internet resources. This is the first project in the nation that is attempting to create a new model, on this grand scale, for technology and arts education targeted at urban youth.

Action Plan: Hire full time IPAP Coordinator, NII literate
Expand community neighborhood outreach & recruitment
Expand school, afterschool program recruitment

Measurable Outcomes:
of young visitors to YBG Studio's new facility
of participants enrolled, from underserved communities, in IPAP program
By survey /Better understanding & comprehension of new media tools and the capabilities of the NII
of participants utilizing NII

B. Exemplifying The Creative Uses of Technology

Over the last three years there has been a focus on creating static web sites -- and access to the Internet has been defined solely as retrieving information. Today, the general shift in web technology is moving towards streaming content, live and pre-produced.

The kind of access that YBG Studio will offer is not just a means for information retrieval but Publishing Access to tools and techniques for young people to produce their own messages and content. At YBG Studio, visitors will be able to explore and use new technologies through interactive exhibits that exemplify the more creative uses of digital media and electronic communications. Developed by Sheila Bergman, Artistic Director and Zane Vella, Director of Exhibits and Technology Development and recipient of the 1996 NII award, the YBG Studio program has been designed to encourage an in-depth exploration of technology as: 1) a tool for the creative arts 2) a tool for enhanced electronic communication, and 3) a way to implement project-based educational network activity.

*Not Simply Web access
Interactive exhibits*

YBG Studio's Production Lab, designed by Zane Vella, uses the Internet to forge collaborations between YBG Studio and schools throughout San Francisco. The main intent is for schools to be producing next generation Internet content (streaming audio and video). This will be accomplished through use of YBG Studio's Production Lab facilities, utilizing this proposed network of schools connected to YBG Studio via ISDN Internet connections and the artistic and technical expertise of YBG Studio staff. YBG Studio functions as the technical and organizational hub of network of media producing schools and afterschool groups.

YBG Studio will provide schools with Digital Toolkits, a satellite equipment loan package, which will enable young people to make their own content for the Internet. This loan package will include: hard drive and/or laptop, video camera, DAT recorders, Quick Take Camera, and other basic materials needed to successfully complete their projects. PictureTel Corp. will support videoconferencing activities between the participating school sites and YBG Studio to further facilitate these projects.

Digital toolkits

PictureTel Videoconferencing

*Computer
Video Camera
Quick Take Camera
DAT recorder*

An example of a project scenario :

- Middle school students studying marine biology complete their regular work in the classroom, and go on field trips to a local reef and aquarium. The students record their observations and assessments using video, writing, photography, etc.
- The students will use Internet connectivity through YBG Studio to research and prepare materials.
- Using YBG Studio's *Digital Toolkits*, they record basic images, sounds, etc. using the supplied media tools to take to the YBG Studio Production Lab.
- The students visit the YBG Studio to produce a live presentation for the Internet and publish their projects on YBG Studio's web site.

Action Plan: Complete the build-out of YBG Studio's permanent facility and telecommunications infrastructure.
Complete the final design of the production lab.
Implement IPAP program

Measurable Outcomes:

- Survey/Better understanding of the creative possibilities of the NII
- Basic skills for creating Internet content
- Content created for the Internet

2. Project Feasibility

A. Technical Approach

The technical infrastructure to support the YBG Studio's Internet Publishing Access program consists of two parts, ~~Network Infrastructure and Media Production Infrastructure. Network Infrastructure will consist of the main YBG Studio facility becoming a dedicated, high-speed Internet connection to a reliable, top level Internet Service Provider. YBG Studio will also have a backup connection to a second Internet Service Provider. YBG Studio will also have a backup connection to a second Internet Service Provider. YBG Studio will also have a backup connection to a second Internet Service Provider.~~

2 parts
1. Network
2. Media Production

Dial up
ISDN

Media Production Infrastructure has two main components, the primary Production Lab facility and 6 sets of Satellite Production Gear. The foundation of the Production Lab is a streaming audio and video server, an audio video patch bay, and specialized peripherals including video cameras, graphics machines and audio equipment. This streaming audio and video server will employ either Progressive Networks RealMedia Server or Graham Technology Solutions Media Server.

The project's Satellite Production Gear, a.k.a. *Digital Toolkits*, is comprised of six identical sets of digital media production tools including video cameras, digital audio recorders and still image recorders. The purpose of the Satellite Production Gear is to provide participating classrooms with the media production tools necessary to prepare materials for use in the Production Lab. (Depending on budget considerations, these *Digital Toolkits* will include a laptop computer to facilitate transfer of materials produced in the classroom.)

These two elements of YBG Studio's technical infrastructure are designed to both complement each other and to enable the project's partners to produce next generation web content. The project's Network Infrastructure will enable both traditional Internet access via ISDN dialup through YBG Studio as well as encourage the use of ISDN Internet connectivity to support content creation using YBG Studio's Production Lab facility. The Satellite Production Gear will encourage participating schools to build literacy with new communications tools but will also encourage use of the school's Internet connectivity through YBG Studio as a means to publish on the Internet.

B. Technical Timeline

- immediate: continue research and recruitment of participating schools
- months 1-3: initiate installation of TI connectivity to YBG Studio
initiate installation of ISDN dialup capability to YBG Studio
initiate installation of ISDN to all partner schools
initiate WWW server onsite at YBG Studio
introduce Satellite Production Gear (*Digital Toolkits*) to participating schools
- months 3-6: configure AscendMAX onsite at YBG Studio
configure Ascend Pipeline for each school site
provide local schools with computer equipment
develop school site skills with Satellite Production Gear
- month 6-12: initiate testbed projects between schools and YBG Studio

C. Applicant Qualifications

Zane Vella is responsible for the Exhibit & Technology Development for the Production Lab and Artist's Studio to be housed in YBG Studio's permanent facility. Mr. Vella, an artist and educator, has worked extensively with the San Francisco Exploratorium and several other art and science centers and companies including Ontario Science Center, Los Alamos National Laboratory, Apple Computer, and Disney, developing and piloting several on-line interactive projects. Mr. Vella created the NII award-winning CitySpace, a project designed to develop network communications and computer graphic skills among youth and to emphasize the two-way nature of the Internet.

David Bolt has been advising YBG Studio on its digital infrastructure plan since 1992. Mr. Bolt has been responsible for the build-out of the telecom infrastructure for the new Calif. College of Arts and Crafts, and the George Lucas Educational Foundation. Mr. Bolt has had extensive experience working with the Dept. of Commerce, NEA, California Arts Council, National Park Service, PBS & NPR as a technology consultant.

The YBG Studio began actively programming, primarily in underserved communities within San Francisco, in late 1994 and have since served over 2,500 youth and teens. YBG Studio is active in the area of professional development for educators and artists, currently developing an "AT&T Learning Center" as a part of its new permanent facility. We have been very successful in gaining recognition as one of the authorities on the creative uses of videoconferencing in the arts and have served as advisors to the California Governor's Conference on the Arts and Technology, Westport Public Schools' Teachers Center in Connecticut and to other agencies and non-profits nationwide.

As demonstrated by the list of project partners, YBG Studio has been very successful in bringing together local educators, technology developers, city agencies and corporations to create educational programming. Our community outreach strategies have met our original goals of reaching out to underserved youth and maintaining that relationship after they leave our programs. Parents, educators and technology developers alike commend our creation of exciting and non-threatening programming that meets the needs of our diverse San Francisco communities.

D. Budget

Although the capital construction and FF&E of the YBG Studio is funded by the San Francisco Redevelopment Agency, the YBG Studio is solely responsible for securing funds for staffing, programming and operations. We are operating on a minimum budget and are in great need of TIAP funds to complete the NII access and Internet publication access program. (See attached budget and personnel descriptions)

E. Implementation Schedule

YBG Studio has completed the initial research necessary to implement IPAP. We have key partners and contacts in the above-mentioned neighborhoods who will help us reach young people in our target communities and successfully recruit them for our programming. We have established incentives for teachers, students and parents to encourage a sustained level of participation with the YBG Studio. Beginning in October, we will embark on a mass media campaign that will establish our identity as an important citywide resource and to raise public awareness of the opening of our facility in May 98.

The project partners propose to take a multi-layered approach to introducing San Francisco youth to the NII:

Access: We will provide public access to the Internet in our new 34,000 square foot facility and at our partnering schools, afterschool programs and other non-profit organizations.

Training: We will provide individual and group training through the YBG Studio Internet Publishing Access Project and through our Professional Development Programs for educators, artists and parents.

F. Professional Development & On-Going Support

Real change in removing barriers to new communications technology cannot happen within communities unless all individuals living in the community are invited to take part in the growth and restructuring process, through formal workshops or via an open door policy. YBG Studio believes our organization must serve as a clearinghouse for information for all the neighborhoods in San Francisco. Upon opening in May 98, young people, teachers and parents will be invited to visit YBG Studio's new facility and have their questions answered by a local organization that understands their specific needs, community history and educational goals—but also has strong ties to cutting-edge developers of new technologies. YBG Studio is working closely with the San Francisco Arts Commission to create an on-line clearinghouse for technology & art resources.

G. Sustainability

YBG Studio's IPAP is designed to be a self-perpetuating project with built in flexibility to accommodate growth. IPAP Project Directors, Sheila Bergman and Zane Vella, have experience in initiating national technology and arts projects which continue to thrive today. TIIAP support is critical to launch and establish IPAP. After the two year funding period, the fiscal viability of IPAP will be supported by admission fees to the YBG Studio facility, contracts with additional SFUSD schools and the support of new funding sources from the private and public sectors.

The YBG Studio Board of Directors has been working on creating a business plan that will secure the operations and financial stability of the organization. Most recently, the Board of Directors appointed an Executive Director, David Dial, who has extensive expertise in strategic planning and institutional development. He will work closely with the YBG Studio's Artistic Director, Sheila D. Bergman, who has 10+ years of experience designing technology and arts programming for young people, particularly those living in underserved communities.

The San Francisco Redevelopment Agency (SFRA) has made a long term commitment to the YBG Studio, to support the construction of our new facility and installation of the telecommunications infrastructure needed for our electronic communications educational programming.

YBG Studio and the SFRA have recently commissioned a study of the facility and program plan with AMS Planning and Research. Some of the key issues of this study related to our projected attendance projections at 150,000 visitors per year, viability of programming in our new facility, our ability to reach our target audience of school aged children and teens, teachers and

parents and our staff expertise and ability to successfully design, implement and sustain our program. The findings were positive for our strategic planning and viability of our program.

3. Community Involvement

YBG Studio's Internet Publishing Access Program Partners

The participating agencies will play an integral role in the development and implementation of the YBG Studio Internet Publishing Access Program. The roles of our partners are three-fold 1) to help us identify the needs of the educational and local communities, 2) to provide regular feedback on the IPAP project, and 3) to provide a level of funding to ensure the project's completion and success.

A. Community Partners

YBG Studio has a strong commitment from various community partners. Below is a sampling of our partners: *Tenderloin Afterschool Program, Operation Contact, Bessie Carmichael Elementary School, Commodore-Stockton Elementary School, James Lick Middle School, etc.*

YBG Studio understands the vital role that schools must play in helping our community and has established a close relationship with our community partners. Teachers from the SFUSD have been and will continue to be involved in the development of the YBG Studio's professional development programs. YBG Studio has listened to the educators who say that all too often, in-service curriculum and workshops are created without the teacher's needs in mind. In an effort to ameliorate this situation, YBG Studio involves interested teachers in the discussion, planning and strategizing for the collaborative workshops and solicits feedback from educators via the Internet. These community partners are committed to making the IPAP implementation successful. SFUSD Schools will provide in-service credit for attending YBG Studio Internet Publishing Access Program workshops.

B. Municipal Partners

The San Francisco Redevelopment Agency (SFRA)

The SFRA is supporting the capital construction and build-out of the Children's Block in Yerba Buena Gardens. The Yerba Buena Gardens district has transformed from a blighted area to one of the fastest growing cultural districts in the nation and neighbor to "Multimedia Gulch". The SFRA will provide the telecommunication infrastructure for the YBG Studio facility to support the Production Lab and Learning Center.

C. Corporate Partners

AT&T Corporation--believes that education is a community concern that has to engage all of the community--parents, teachers, administrators, government agencies and businesses. To successfully compete in the information-based global society of the next century, today's students must have access to technology and have teachers and parents who can provide educational support.

Funded in part by AT&T's Learning Network initiative-- a commitment to help connect America's schools to the Information Superhighway by the year 2000, YBG Studio will develop a professional development center for Bay Area teachers. YBG Studio's "AT&T Learning Center" will be a classroom for educators, administrators, parents and artists to learn how to use new technologies, develop lesson plans for integrating technology into the classroom and provide on-going workshops focusing on exploring the NII. AT&T is providing annual cash support to assist in staffing the learning center and for materials exclusive of equipment purchases.

PictureTel Corp.-- is the world leader in videoconferencing and multimedia collaboration. PictureTel will assist YBG Studio's Internet Publishing Access Program by helping us explore creative applications of videoconferencing technology. PictureTel is collaborating with YBG Studio and its partners by providing in-kind videoconferencing equipment at the YBG Studio facility and at various schools within the SFUSD.

D. Content Partners

San Francisco Arts Education Collaborative

The San Francisco Arts Education Collaborative (AEC) has asked YBG Studio to provide on-line support for its bi-annual publication *INSIDE/OUT: A Guide to Arts and Arts Education Resources for Children and Teens in San Francisco*. The AEC is a four-way partnership made up of the Arts Education Funders' Collaborative, the San Francisco Arts Commission, the San Francisco Unified School District and the San Francisco Arts Providers. The AEC provides professional development projects, teacher training, technical assistance, and grants to assist SFUSD schools in integrating arts into the curriculum. YBG Studio will act as a clearinghouse for all arts and technology resources so that parents, teachers and students will have immediate access to the multitude of creative programs offered in the Bay Area. The AEC will provide the research data and partial funding to publish the arts education resource guide on our Web Site.

E. End-Users

The end-users of the YBG Studio Internet Publishing Access Program are a diverse group of students –grades K-12– and educators within the San Francisco Bay Area who will engage in the ongoing activities in the real-time, multimedia Production Lab and professional development opportunities in technology and the arts. The student end-users will come largely from an urban setting, with a high percentage from economically disadvantaged households. It is assumed that very few of the end-users will have prior experience with Internet communications. Demographics of the educators are difficult to predict. Technology experience will vary widely as will experience with the Internet.

End users will receive training and ongoing support in the use of network communications and multimedia production tools. These tools and techniques will be put to use on a regular basis as the students at YBG Studio engage in the ongoing process of production. When participating in Production Lab activities, the NII becomes the medium through which students, teachers and parents working in groups share their contributions with each other. The network becomes not only the repository of these creations but also the medium for sharing their observations and personal experiences.

End-users gain valuable network communications and multimedia production skills. Because many of the students that we are working with come from at risk communities, we ensure that their identity will be protected and that they will receive a thorough instruction on anonymity issues.

4. Reducing Disparities

In order for young people to become active, discerning participants in today's constantly changing society, they must have the opportunity to learn the tools and concepts of the technology along with developing the creative imagination to fully explore the possibilities.

Although many of the technologies in use and under development are created in the San Francisco Bay Area, the technology is not evenly distributed among its residents. California ranks 45th in the nation in student access to computer technology. The California Education Technology Task Force 1996 report found that there is approximately one computer for every 14 students in California classrooms, compared to about one for six students in leading states.

Among the San Francisco Unified School District, there are 2,500 classroom teachers reaching a student population of 64,000. The average age of classroom instructors in the SFUSD is 50 years old. YBG Studio has initiated a partnership with San Francisco State University to provide internships at YBG Studio in educational technology. YBG Studio's Internet Publishing Access Program will make a concerted effort to include the school district's next generation of teachers in our professional development programs.

IPAP's partners strongly believe that the programs designed must address the specific needs of the diverse segments within these neighborhoods and be flexible in style to accommodate the many different ways of learning within the cultures of San Francisco.

TIIAP support is vital to the YBG Studio's Internet Publishing Access Program because it will provide the participating schools with Internet connectivity to support their interdisciplinary production effort from their classrooms. Familiarity with and mastery of the technology will enhance the visits of the students and educators to YBG Studio. TIIAP support will increase the number staff available to mentor students and teachers, provide workshops, and documentation of the school district/art and technology resource model. The TIIAP award will allow YBG Studio to reach a greater number of San Francisco residents through our outreach programming.

Strategies for reaching out to targeted end users:

- 1) Each of the 75 elementary schools, 16 middle schools and 19 high schools will be visited by YBG Studio staff within Year 1 of YBG Studio's Internet Publishing Access Program to introduce interested teachers to the Internet Publishing Access Program.
- 2) Teachers will be invited to attend focus groups to discuss, plan, strategize and prepare for implementation of the educational programs
- 3) A core group of teens will be recruited to serve as mentors to elementary and middle school students.

5. Evaluation and Dissemination

A. Evaluation

YBG Studio's Internet Publishing Access Program will measure the effectiveness of the project in reaching its goals using both formal and informal methods.

1) **Formal Evaluation:** Ruth Schoenbach, Ed.D., Director of the Herald Project and Senior Associate with WestEd, a public agency for educational research and development, will lead a formal program evaluation that tracks the results of IPAP at significant benchmarks and at the end of the two-year grant period.

2) **Informal Evaluation:** The success of IPAP will be informally evaluated based on the number of participants reached and recurring participation by students and teachers. Letters of evaluation from teachers and parents, journal keeping by students and focus groups will be part of the informal evaluation plan. The level of public inquiry will also serve as an indication of the success of IPAP. Specific evaluation instruments to be employed include participant questionnaires (pre/mid/post), site visits and exit interviews. YBG Studio will make these questionnaires and feedback forms available on the Internet.

B. Dissemination plan

YBG Studio recognizes the importance of disseminating information about this innovative model program by reaching the largest possible audience in a variety of methods. Dissemination of IPAP will occur in three ways:

1) **Dissemination on the Internet:** Updates, lesson plans and feedback forms will be posted on YBG Studio's Web site (www.ybgstudio.org) on a regular basis.

2) **Formal public presentations:** YBG IPAP project directors will be represented at various local, regional and national professional conferences including ISTE, Governors Conference on the Arts, Siggraph, etc.

3) **Published materials:** TIIAP support will also enable YBG Studio to produce and distribute the publication "Creating an Internet Publishing Access Program: A Guide to Establishing a Community-Wide Technology and Arts Program Using the NII."