IS 290/Section 1
EPublishing Project Plan

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**Executive Summary**

Group Voice is designed to allow group leaders to gather the opinions of their members, in order to make decisions on policy matters. Unlike other tools available today, such as email, survey tools and traditional decision support systems, the focus of Group Voice is the presentation and summarization of opinions of members, on questions proposed by the leaders. In addition, Group Voice archives each question’s supporting documentation, opinions and final outcome for future use by the group.

In partnership with the Latino Issues Forum, a group of SIMS Masters students has developed the first prototype of Group Voice. The system provides an effective means of collecting the opinions of a group who cannot easily gather at a centralized point and time. This web-based collaborative tool allows members of LIF to access the question posed by leadership at a time of their choosing. The members are able to review the question, supporting documentation, options and arguments submitted. They may then concur with arguments, which express their opinions, and add new arguments to further explain their position on the question. Leaders will monitor levels of participation on each question as well as the levels of support for the various options. Once the time period for comment has concluded, leaders may then post their decision regarding the question.

Other products in the market do not appear to meet the needs of LIF, which expects its members to provide educated opinions on the questions leadership is considering. Email and Message Boards lack the summarization and centralized storage of the cumulative knowledge gained through the opinion gathering process. Survey tools which ask members to vote for a particular option, may provide mixed messages within organizations like LIF, that do not make decisions by tallying votes of their membership. Traditional decision support systems do not offer an effective means of expressing qualitative commentary. Instead they focus on quantitative measures to come to decision.

Group Voice is best suited for organizations, like LIF, which want the input of their membership on questions of policy. These include other Policy Institutes, Representative Not-for-Profit organizations and Professional Membership organizations.

With the completion of the first prototype, the SIMS students will conduct user testing to gather input on how well the present User Interface conveys the intended goals of the system and how well the users can perform intended tasks. In addition, they will begin working with leadership on visualizations of the members’ opinions to see which summarizations are the most important. The information gathered in the testing and conversations will be used in an iterative design process to improve Group Voice, in anticipation of a final release in May, 2003.

Subsequent to final release date, additional customers will be identified through referrals from LIF and market research with resources from outside funding.
Group Voice is intended for groups in which leadership solicits opinions from a distributed membership.

Introduction

It is generally the responsibility of the leaders to make decisions on issues of interest to their group. This decision-making is not usually done in a vacuum, but rather involves obtaining the opinions of group members. When the group is unable to meet at a central location and time to discuss issues, it becomes challenging for the leaders to gather the members’ opinions. Many groups try to manage this process via email or electronic bulletin boards where various parties present their opinions in numerous discussion threads. These processes provide the opportunity for opinions to be overlooked in a myriad of responses, as well as leaving leaders with the time-consuming process of accumulating and summarizing the results. Furthermore, these processes are not well suited to centralizing the documentation used to arrive at a decision and maintaining a history of the decision-making process.

Group Voice addresses these issues via a centralized web application that enables an organization to:

- Present questions
- Collect the opinions
- Provide leaders with a summary of the group’s opinions
- Archive questions and opinions for future reference

Market

Group Voice is designed to meet the needs of groups in which the leaders make decisions on policy related matters for the group. The leaders of these groups look to membership for insight on particular factual data as well as their opinions of the value of taking a specific position on the issues under review. Leaders also try to engage new members in the process to help them become familiar with the approach the members use to express their opinions.

Groups which are large in number and/or not centrally located find it difficult to meet at a central point and time to provide input. Thus they rely on tools such as Email, Message Boards, Survey Tools and traditional Decision Support Systems to gather input.
Customers

First Customer

Our first customer is the Latino Issues Forum (LIF)

LIF is a non-profit public policy and advocacy institute dedicated to advancing new and innovative public policy solutions for a better, more equitable and prosperous society. Established in 1987, LIF’s primary focus is on the broader issues of access to higher education, economic development, health care, citizenship, regional development, telecommunications issues and regulatory issues. LIF also serves as a clearinghouse to assist and provide the news media with accurate information and sources in Latino community for fair and effective coverage of issues. LIF addresses public policy issues from the perspective of how they will affect the social and economic future of the Latino community.1

LIF has three directors with decision-making responsibility and approximately 20 members, who are located at three sites in California. The directors like to get input from staff when making decisions, however it is difficult to get staff members together at the same place and time. They have indicated that some of their best discussions occur during semi-annual retreats. During retreats, all members of the organization have a chance to provide opinions on issues of interest to LIF. However, these retreats require a lot of advance planning and only occur twice a year.

In between retreats, the leaders request input via email or one-on-one discussions with knowledgeable members. Neither method has proved to be as fruitful as the retreat discussions. LIF leadership would like to create a forum for discussion that is not dependent upon the group coming together.

Other Target Customers

Other target customers for Group Voice include the following types of organizations:

- Policy Institutes
- Representative Not-for-profit organizations
- Professional Membership Organizations
- Government Agencies

Customer Advocates

Within the target groups, potential advocates for Group Voice include directors, managers, and IT personnel. Directors will focus on Group Voice’s ability to summarize the opinions of group members. Managers will appreciate the ease of posting questions. And IT personnel will consider the use of standardized technologies and ease of maintenance.

1 http://www.lif.org/about.html accessed December 1, 2002.
**Product Concept**

Group Voice is intended for groups in which leadership solicits opinions from a distributed membership.

Group Voice is web-based collaborative tool to:

- Present questions (with options and documentation) to a group
- Collect the opinions (expressed as arguments and concurrences) in favor of various options
- Provide leaders with a summary of the group’s opinions
- Archive questions and opinions for future reference

Group Voice contains three views: participant, leader and administrator. The participant view lists the open questions (with related options and supporting documentation). The leader view allows quick review of participation levels and levels of support for the various proposed options. The administrator view lists the questions the administrator is managing.

Participants have the following functionality for questions they have been invited to:

- See questions, options and arguments supporting each option.
- Review documentation supporting questions, options and arguments.
- Concur with an argument supporting a proposed option.
- Provide a new argument.
- Provide documentation related to the question.
- Review resolved questions, options, arguments and supporting documentation as well as the outcome.

Leaders have the following options:

- Review current levels of participation for open questions.
- Review current levels of support for various options both for mandatory and optional participants.
- Review historical participation levels on closed questions.

Administrators have the following options:

- Set up a new question by providing the questions title, detailed description, options, and documentation.
- Invite participants to participate in the question.
- Post the outcome for a question once a decision has been made by the leadership.
Product Architecture

For the first prototype, the database is Microsoft Access; the application server is ColdFusion; and the web server is Microsoft IIS. These components facilitated the rapid development of the prototype.

There are three types of tables within the database: participant tables, question tables and opinion tables. The participant tables include information such as email address, password and status (leader, participant, administrator). The question tables include information such as the options, supporting documentation and close date. The opinion tables incorporate information regarding the arguments and concurrences provided by participants.

The combination of ColdFusion and HTML has been used to create our Interface design. ColdFusion allows for dynamic creation of all pages within the application, based upon information maintained in the database.

Competition

There are three competing technologies used within this market space: Email/Message Boards, Survey Tools and traditional Decision Support Systems.

The most readily available and inexpensive option for gathering opinions is Email. For most organizations, the infrastructure necessary for Email exists and members are familiar with how to use it. However, Email does have several limitations. Email does not summarize input from members. The responses are decentralized into multiple email threads. The results are not stored in a central location for subsequent review.

Similarly, Message Boards are generally available to organizations at minimal cost. They share many of the same limitations as Email, although Message Boards do allow members to view all responses.

There are many forms of survey tools available to organizations. These tools present a consistent question to all those invited to respond. They also allow members to view the outcome of the vote. However, members must obtain information on the topic prior to voting on the question, and voting does not allow members to provide leaders with new arguments that are relevant to the question. Most importantly, asking members to vote on a question makes it appear that members are being asked to decide on the question, rather than provide their input for consideration by leadership. This is contrary to the decision-making style used at organizations like LIF.

Traditional decision support systems use quantitative analyses of known variables to help leaders address a question. For example, these tools are often used for making capital expenditure decisions where most of the factors are quantifiable. However, these systems are not well suited for analyzing qualitative variables such as the opinions of members.
Opportunity

As presented above, the current options for gathering opinions do not meet all of the requirements presented by organizations like LIF. Group Voice is a better alternative for these organizations because it takes the desired characteristics of existing technologies, mitigates their drawbacks and provides added functionality in a single product. The main features include:

- centralized access to documentation and arguments in favor of options.
- summarized input from members.
- historical detail of questions posed to the group and collective responses.
- alignment with common decision making processes present in many organizations.

SWOT

Strengths

- Competitors do not offer a complete solution for this niche.
- Easy for participants, leaders and administrators to use.
- Storage of cumulative knowledge gained through the opinion gathering process.
- Uses standard technologies allowing for easy maintenance.
- Barrier to internal development by individual organizations is high in terms of technical expertise.

Weaknesses

- Technology does not currently exist within customer workflow.
- High participation level is required to achieve benefits for Leaders and Participants
- Some competitors (Email and Message Boards) have no/low added cost for implementation within organizations.

Opportunities

- Implement Group Voice at LIF, then use LIF contacts at other similar organizations.
- Follow up with members of LIF partner organizations that participate in LIF questions. For example, if LIF asks a member of another public policy organization to participate in a question of common interest to both organizations, then members of the partner organization may then want to implement Group Voice.
Threats

- Leader may not realize how frequently they currently seek opinions of group members when making decisions.
- Existing means of communication (meetings, e-mail, phone) may be sufficient for leader needs.

Financial Plan

Current efforts have been accomplished with donated labor of SIMS Masters Students using the infrastructure of SIMS. Consequently, the business model is to implement Group Voice one client at a time, and obtain new clients through referrals. LIF has partnered in the development of the first release of Group Voice and will not be charged. Subsequent clients will be charged a flat fee for the code, plus a maintenance fee to obtain upgrades and support.

With funding, additional resources would be used to identify and obtain additional clients. First potential groups would be identified through market research. Then a marketing web page would be developed for Group Voice. Finally, an email solicitation would be sent to targeted groups.

Implementation Plan

With the completion of the initial prototype, user testing with LIF can begin. During the next few months, all aspects of Group Voice will be tested and its design iterated. The usability of the interface will be assessed and the system will be modified based on findings. In addition, interviews will be conducted with LIF leadership to determine what types of summary data is needed and how it should be provided (online, in print, etc.). The results of these interviews will also be incorporated in future iterations.

The first release of Group Voice for general use is planned for May, 2003. At that time the final product will be installed on hardware resident at LIF.

After release, the next steps will involve obtaining referrals from LIF to other organizations that may wish to purchase the application and related maintenance and support services. With capital funding market research will be performed to identify additional organizations which can benefit from the use of Group Voice.
Open Items

Open technical issues

The current prototype operates only with the Microsoft Internet Explorer Browser. Subsequent designs will take into consideration Netscape as an alternate tool for viewing. In addition, MAC users experience problems in uploading files, urls and citation information for arguments. This will be corrected in future designs. The database will also be migrated from Access to MySQL for more flexibility and use within LIF’s current architecture.

Open functionality issues

The first prototype of Group Voice requires external maintenance of the database for several services. These services will be performed by a System Administrator, who is responsible for the creation of the database, as well as the establishment of the application environment. SIMS students currently serve in this role. The services maintained externally include:

- Creation of new participants – new participant set up requires the entry of an email address, password, and leader status.
- Creation of a new question – the initial set up of a question is done directly in the database. The system administrator enters a brief question header. The status of the question is set to “New” as part of this set up.
- Set up of question administrator – system administrator must assign a participant as the question administrator for each.
- Archiving old questions – will be based upon volumes and specific organizational requirements for historical data.

Future inclusion of these features will depend upon the requirements addressed in user testing.

Feature enhancements to be incorporated in future prototypes

- **Group selection criteria** – within the Invite Participants section, the current prototype requires the question administrator to select each individual who will be invited to participate in the question. In future prototypes, individuals will be given a functional group designation similar to the category designation currently assigned to questions. Question Administrators will then be able to select by group as well as by individual for participation.
- **New feature** – the presentation of questions and arguments to participants is currently defaulting to most current date order. In future releases, those questions and arguments that have been added since the last time the participant logged in
will be clearly designated as new. This will help the participant to find new comments more quickly.

- **Integration with email** – to automate the sending of an invitation to all participants selected in the question set up process. This feature is not yet functional but is anticipated to be completed within the next design update.

- **Clarification of a question** – to allow participants to ask for some guidance. The current system does not have an option to allow participants to request assistance with use or clarification on a specific question. This feature will be designed with input of LIF.

- **Help Features** – to allow participants new to the system to find out additional information. This feature will be incorporated in future phases to allow the application to require only minimal hands on introduction.