Technology Consulting in the Community

Fall 2008

Final Consulting Report

Longé Dominica

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Longé Dominica
Executive Summary

Student Consultant, Kyunghwan Choi
Community Partner, Cara Ciminillo

I. Background Information

Longé Dominica is a non-profit organization with a mission to:

Increase tangible resources in the Carib Territory by creating dynamic educational settings for Kalingo and non-Kalingo young adults with a focus on the arts, service, and leadership development.

The organization offers three main programs in delivering its mission. These programs are available throughout the year to college students and adults.

The Community Partner, Cara Ciminillo, is the founder of the organization and serves as Executive Director. She spent two years as an Americorps VISTA at Habitat for Humanity, a summer as Resident Director and Instructor with the Pennsylvania Governor's School for International Studies, and eight years with VISIONS.

II. Consulting Tasks

1. Internal Communication

The staff members of the organization are dispersed around the world; there was no clear method of communication in place. All the client, partner, and donor information stored in Microsoft Excel and Word files and the data is exchanged via e-mail. Also, Ms. Ciminillo was responsible for keeping data up-to-date, which means that if Ms. Ciminillo is unavailable, other staff members did not have access to the most updated information. This often prevented tasks from being completed in a timely manner.

2. External Communication

The organization is partially funded by the tuition of students participating in gap-year programs. Because of this, communication with visitors to the website is a very important part of operation within the organization. Because there is no one capable of updating the website, website information was out-of-date, and the processing of forms from interested students was slow because they had to be printed and sent via mail.

III. Outcomes Analysis and Recommendations

In order to solve both problems, the static webpage was migrated into Joomla environment. CiviCRM, an extension of Joomla, was installed and LimeSurvey was installed separately.

Joomla enabled the organization to update the website content in an efficient and timely manner without the need of any external resources. CiviCRM enabled the staff members to exchange client, partner, and donor information on-line. Therefore, there is no need for Ms. Ciminillo to keep track

of the information; the staff members can access and update information at anytime. LimeSurvey has enabled the organization to receive information from students on-line. This has saved a tremendous amount of time since all data can be received instantly, instead of waiting for forms to arrive via traditional mail.

The first recommendation for the organization was to consider web advertisements and the steps to follow in order to do so. Because the organization is looking for students and young adults to join and participate in its programs, an effective advertisement campaign through services like Google Adwords would further the organization's mission by increasing the visits of potential future participants.

The second recommendation was what to look for when the organization hires a technical staff member in the future. Although the organization does not have a technical staff member at this point, in the future, the organization is planning to hire a technical staff member. The Community Partner requested the specifications or skills necessary for a potential new hire to manage the website, therefore a recommendation has been given to outline these requirements.

Community Partner

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About the Consultant

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Kyunghwan is a Master's student in Electrical and Computer Engineering.

Longé Dominica Context Analysis

Student Consultant, Kyunghwan Choi
Community Partner, Cara Ciminillo

I. About the Organization

Organization

Longé Dominica is a community collaborative committed to reaching out to connect individuals through collaborative living, community development, and conversation.

By creating dynamic educational settings for Kalingo and non-Kalingo young adults with a focus on the arts, service, and leadership development, the organization serves to increase tangible resources in the Carib Territory.

Longé Dominica is an organization parted from Visions Service Adventures, an organization providing international community service summer programs for teens, just to manage programs for Dominica. It's a relatively new organization of two years with six staff members and two interns teaching in Dominica.

Facilities

There are no particular facilities associated with the organization. The staff members and the volunteers work individually at a place of their choice, usually at home during their free time, and the equipment is not standardized.

Programs

They provide three different programs to the individuals who are interested in the organization:

Interim/Gap Year Program for Pre-College and College Students

Young adults such as pre-college and college students spend a semester or two living communally and volunteer at preschool, clinic, or developing programs with or through the Committee of Concerned Women. This is an opportunity for them to broaden hearts and minds, foster independence and interdependence, and encourage self-knowledge. Students pay tuition in order to participate in this program. Each student has to pay their own airfare.

Summer Leadership Program for Young Adults

This is a five-week program for two consecutive summers for twenty young adults, half from the Kalinago community and half from other countries. During the first five-weeks, these participants create action plans together. Groups and individuals will establish goals. During the second semester, the same twenty young adults will re-unite in another location or country with the aim of creating a living and learning community through creation of action plans.

Customized Community-based Excursions for Adult Groups

For small groups of adults, they can create 10 to 21 day customized immersion experiences which offer activities that promote deeper understanding of life in Dominica while providing support and service to the community.

Staff

There are total of six staff members in the organization.

Cara Ciminillo is a founder of the organization and serves as Executive Director. She takes care of all the programs, interns, finance of the organization.

Provin Sanford is a founder of the organization and serves as Community Relations Director/Deputy Director. He manages programs in Dominica in-field.

Anthony Dupigny, Michael Farrell, and Suzan Sanford are volunteers working in Dominica for the organization; they volunteer in schools and operate programs.

Mardi Dauphinee is a staff member assisting in recruitment and marketing in Canada.

The staff members use technology in order to exchange information about the organization.

Technical Environment

Currently, the website is offered through paid hosting service Bluehost (http://www.bluehost.com).

The mailing list of the staff members, volunteers, and donors is managed through paid service Constant Contact. The mailing list is used to send out newsletters about the organization and programs. The newsletter often contains the list of donors.

The individual staff members and volunteers do not use the same or standardized technology. Because all of the data is saved in Microsoft Access or Microsoft Excel, there are no technological restrictions as long as staff members and volunteers have sufficient access to files. Ms. Ciminillo uses Windows XP and Microsoft Office on an IBM laptop.

Technology Planning

There is no technology planning in place at this point.

The budget for technology is $0 excluding the Bluehost hosting service fee and the Constant Contact fee. The staff members themselves must purchase the computers necessary to access the Microsoft Excel and Access files. Because of this, it is very important that we utilize existing technology and use free services as much as possible to reduce the cost.

Internal and External Communication

Since the staff members are located all over the world, internal communication is done via phone conference and e-mail. Information related to the organization, such as student information, partner information, or donor information is exchanged via these methods.

External communication is done via newsletter, e-mail, and phone calls. Newsletter, e-mail and phone calls are usually used to communicate with donors and partners. The website is used to advertise the organization to students who may be interested in the programs that the organization offers.

Information Management

Students submit their contact information and donation information by printing out the form from the website.

The information obtained from the forms is stored in excel files. These excel files are managed by Ms. Ciminillo, and stored on her laptop. If any other staff members require any of these excel files, Ms. Ciminillo must send them via email.

E-mail addresses are stored on the website service Constant Contact.

Business Systems

All of the data is managed in Microsoft Excel and Microsoft Access. The financial information, such as donation amounts and finance requirements, is managed in Microsoft Excel.

II. Scope of Work

Task 1. Internal Communication between the Staff Members

The staff members of Longé Dominica are scattered around the world, in Canada, U.S.A. and Dominica. Because of this, the staff members communicate primarily via phone conference and e-mail. Since all of the documents used by the organization are saved as Microsoft Excel and Word files on Ms. Ciminillo's laptop, if she is unable to connect to internet the other staff members have no way to access the data that they need. The organization relies on donations. Currently, Ms. Ciminillo leads the organization part-time but hopes to run the organization full-time when the organization can sustain itself and provide her with sufficient income. Therefore, it is important to maximize the resources available in order to attract more donations.

Expected Outcomes

There are a couple of potential solutions to this problem. Using Google Apps is a great way to deal with these documents. Google Apps enables multiple users to access the same document and edit them at the same time without interfering with the tasks of the others. It is also very convenient, since any staff member can access the data independently at any time. However, Google Apps has presented a problem to at least one of the staff members: data cannot be printed as it is shown on the web. Our current focus is to find out if there are any solutions to this problem.

Another potential solution is to use Microsoft SharePoint. This will enable the staff members to share Microsoft Office documents on the website. Like Google Apps, they will be able to collaborate with each other without having to rely on other staff members for necessary documents. However, the organization does not have a budget for technology and this service does cost money.

The last proposed solution is to use a content management system on the web. This will enable any of the users to download, view, edit, and upload Microsoft Office documents on their own. One potential problem with this is that collaboration on any particular document is not allowed, and staff members may overwrite each other's changes. But for client management, there are applications which do not require the use of Microsoft products, and still support multiple users on content.

The goal is to select the method which is the easiest for the staff members to use and which will provide access to information instantaneously at any time at the lowest price.

Additional Impacts

Through any of the proposed solutions, we aim to implement a communication method in which staff members can access any of the documents that they require without having to request the document specifically from Ms. Ciminillo. This will increase the productivity of the staff members as they can work with the documents as necessary without having to wait for Ms. Ciminillo to send them.

Feasibility

During this semester, I will be able to introduce any of the proposed solutions. I have used, or have experience in implementing all of the proposed solutions. I will test and evaluate each of the

solutions, and will give recommendations to the community partner. When the community partner is comfortable with one of the solutions, implementation will take place for use.

I need to make sure that the community partner is fully comfortable with any solution that is implemented as she will be responsible for handling any problems that may arise during its use.

Task 2. Website Visitor Communication

The organization is partially funded by the tuition of students participating in gap-year programs. Because of this, communication with visitors to the website is a very important part of operation within the organization. Currently, documents are uploaded as PDF files on the website; students must print and mail any required forms. Past newsletters are not yet available on the website. In order to e-mail the organization, visitors need to obtain the e-mail address of the organization and use a third-party e-mail application to contact them. The cumbersomeness of these processes may inhibit attracting more students to the organization.

Expected Outcomes

The current proposed solution for the forms is to make them dynamic using a survey application. The LimeSurvey program offers easy creation of forms and a template feature which enables a form to blend into the website. In addition, individual records can be sent out in e-mail form and be stored on the website database. This will make the sign-up process much less complicated for visitors to the website.

The proposed solution for the newsletter archive is to use a web discussion board. Ms. Ciminillo already uses the Constant Contact service to send out well-designed newsletters. However, the organization cannot save more than 5 pictures on the site at a time. This means that past newsletters will show up without pictures. A discussion board on the website will enable Ms. Ciminillo to copy and paste the newsletters. This will allow visitors to easily view the newsletter archive on the website.

The proposed solution for e-mail contact is to use form-mail. Using form-mail, visitors who are interested in obtaining more information about the organization can contact the staff without having to use third-party applications to send e-mail. Instead, form-mail allows visitors to send e-mail from the website directly. Also, using form mail permits us to obtain more information from the sender; simple questionnaires can be used to obtain any relevant information.

Additional Impacts

Through these revisions to the website, we expect to increase the number of requests for information received from visitors. More visitors will contact the information to request additional information if the request process is simplified. It is also easier for the organization to archive data that they need to retain for the future. All of the solutions proposed employ free web applications fully supported by the hosting service, and therefore would not incur any charge.

Feasibility

During this semester, I will be able to complete the proposed solutions. The applications are tested and have been demonstrated to the community partner. The community partner was excited to see several of the examples that I showed her; she was pleased with how much easier it will be for her to use these technologies on the website. However, it is still very important that these services are sustainable after my departure as there is no technology dedicated person within the organization. Because we are using technology and applications supported by the hosting service, we hope that

Ms. Ciminillo will be able to contact the service in case of an emergency. Since the applications are supported by the hosting service, they will be responsible for maintaining and updating the applications for the website.

Task 3. Website Revision

The community partner wanted to see several revisions made to the website. First, a change needed to be made to the gallery. When a picture is clicked, the image should be enlarged. The menu needed to be changed to include more submenus. While these are small requests, they do affect the way that the organization and the programs that the organization offers are represented, which may increase or reduce interest in the organization. Therefore, change made to the website functions to draw more attention to the programs by making more information readily available.

Expected Outcomes

The current proposed solution for the gallery is to use JavaScript to enlarge the pictures. The second solution is to use flash-based application. The second solution was proposed to increase the usability of the website for the community partner. In the future when Ms. Ciminillo updates the website with pictures they will automatically become enlargeable as a result of the flash-based application.

The sub-menu will be changed per her request.

Feasibility

These solutions are feasible and can be done during this semester. The community partner had specific requests and was pleased with the working model of the gallery. The biggest challenge is to find a solution that the community partner can use in the future by herself and to create a document that she can follow to make updates to the website. At the end of the process, there will be a training session to familiarize her with the new environment. The community partner has obtained a copy of Microsoft Publisher 2007 and will be able to update the contents of the website by herself in the future after training and with the aid of documentation organized by the consultant.

III. Outcomes and Recommendations

Task 1. Internal Communication between the Staff Members

Staff members are scattered around the world and currently there is no communication method in place to help the organization transfer information. Setting up a website communication system enabling members of the organization to store documents on-line will allow them to exchange information more efficiently. This information generally includes client, sponsor, and partner contact lists, donation amounts, and notes about the organization.

Joomla and Civicrm have been installed and the website has been migrated from the original static html files to Joomla (Appendix C). Joomla is a content management system (CMS) which enables the user to manage a website on-line. Civicrm is a client management system and one of the components of Joomla. Staff members can access information by logging in to the system. Using Joomla with the web WYSIWYG editor, any staff member of the organization can edit the content of the website (Appendix D). An additional plug-in, MorfeoShow, is used to configure the gallery page. The pictures can be added easily using the CMS (Appendix A). The Civicrm system holds all of the contact information, such as the donors, partners, and contact lists. Using the on-line system, all staff members have access to data and can easily add notes or donation information. This also facilitates the addition and sharing of new contact lists. Staff members access the system for information once a week on average, sometimes also contributing additional data.

In the previous system, Ms. Ciminillo stored all of the organization's information in excel files on her computers and transferred it to other staff members as necessary. This system is inefficient in that all staff members depend on Ms. Ciminillo to synchronize data, and some staff members may only have access to out-of-date information. Using the new system data is accessible instantaneously. Previously it could potentially take hours to transfer necessary information; now staff members can quickly access the most recently updated data. Using the old system, it was very difficult to change the website since it required knowledge of HTML and FTP. With the implementation of Joomla, the community partner was pleased to be able to edit the web content without outside help.

Despite the benefits of using Joomla, there are several problems. First, staff members will require some time to get used to the program. Although Joomla does make it easier for the user to edit the pages on the web, a basic knowledge of html is still required to use it effectively. Although Joomla has a WYSIWYG editor along with several substitutes, none of the editors are as powerful as commercial products such as Dreamweaver. There were cases when it became necessary to consult the HTML while migrating the data. Also, some time is required to learn all of the functionalities offered by Civicrm. In addition to this, no one will be in charge of maintaining the system. However, Joomla and Civicrm are very stable open source projects; because of this, they will most likely remain functional at least until the organization can afford technical staff.

Because the organization is highly dependent on external donations and partner relations to attract students to its programs, efficiency in communication between staff members is vital to the mission of the organization. Improving communication methods to allow staff to exchange information more rapidly will greatly contribute to the mission.

Task 2. Website Visitor Communication

Although the website was already in place, elements of the communication process between the organization and website visitors needed to be improved for greater efficiency.

The Limesurvey program has been integrated in order to increase the efficiency of communication between the organization and website visitors (Appendix B). The program allows the organization to easily create web submission forms. The program has been installed separately from Joomla. Although the hosting service offered an easy installation, in order to use the most updated version of Limesurvey the program had to be installed manually. Via forms created with Limesurvey, website visitors can enter information on-line; the data is stored on the web and sent via e-mail to the organization. Although we have not received any real data, we have tested the program with test data and have confirmed the functionality and benefits of using the program.

Previously, users printed forms and submitted them through the mail; now they can submit the form online. This cuts the time required from at least 5 days for mail to be delivered to 5 minutes for the user to enter information at home.

Some forms, such as the signature page, still need to be printed and mailed. Since a signature page is required to sign up for the program and to accompany the health form, using the electronic form for these is not sufficient for the organization. Additionally, some people may be hesitant to submit their health information over the internet.

This visitor communication system is sustainable; the community partner has participated in training and understands the process. The community partner created 2 out of the 5 forms completely independently, tested the survey, and linked and unlinked forms from the webpage. She also learned how to manage the data provided through these forms. She is provided with a manual for a reference (Appendix E).

This change has resulted in the facilitation of storing data and receiving information in a timely manner. Since the organization receives the information instantaneously, neither the student nor the organization has to worry about forms arriving late or getting lost in mail. The information is automatically stored on the website, which increases maintainability for the organization.

Recommendation 1. Web Advertisement

The website for the organization plays a very important role of recruiting new students to participate in their program. Students have several ways of finding the organization: through participating schools, through gap year program websites, or directly from the organization's website. However, it could be difficult for students to find out about the organization through search engines. Search words such as "Gap Year", "Gap Year Dominica", "Dominica" and "Kalinago" did not direct to the website on the first page.

Consider a scenario where a student is looking for a gap year program or simply looking for a way to learn more about Dominica. A typical student would go to a search engine, such as Google or Yahoo, and search for the term "Gap Year" or "Dominica". Most likely, the student will be directed to a website which provides links to gap year programs or travel information to Dominica. Unless the student is specifically looking for a gap year program in Dominica, the student may not visit this website. Had the student seen the link to the Longé Dominica's website on the first page of the search engine, it would have greatly increased the chance that they would enroll in the program.

In order to make an advertisement for the website, several decisions must be made and several items must be prepared. Both banners and pure texts are excellent advertisements. Banners, while much more effective, can often be expensive. If this method is chosen, a banner must be professionally designed and created. Some search engines, such as Google's side advertisement, may only support text based advertisements. In this case, it will be necessary to develop an effective one-sentence 'catch phrase' describing the organization. In both cases, we must define around 10 'key words'. These key words will be matched to the search query, and therefore should be chosen carefully. Finally, we must select an appropriate website on which to advertise. The most famous one is Google Adwords. There are many options available: the organization can pay per click or pay for a certain period of time. Should the organization opt to pay by time, it will need to pay a certain amount of money regardless of number of clicks made. Each option should be considered carefully. A good strategy is to begin by paying per click. When the price of paying per click is more than the fixed amount for paying by time, change to pay by time to avoid paying too much.

Resources
http://en.wikipedia.org/wiki/Online_advertising
http://www.howstuffworks.com/web-advertising.htm
https://adwords.google.com
http://www.webadvantage.net

Recommendation 2. Future Technical Staff Hire

The organization is planning to hire a technical staff member a few years from now. When the time comes, it is important for the organization to hire someone who is able to satisfy all of its technical needs. Here are some skills that the organization may need to look for when hiring a new technical staff member.

In the future, the organization may face two major potential technical issues. The first is the network connection in Dominica. The technical environment and internet connection is very unstable; the technical staff must be able to deal with this issue in the future. Secondly, as mentioned before, the website plays a very important role in furthering the mission of the organization. Therefore the technical staff must be familiar with web technology.

In order to meet the first requirement, the potential technical staff member must be familiar with computers and network connections. He/she should be familiar not only with computer hardware, but also with OS environment and its network configurations. Also, the potential staff member must be familiar with the technical environment in Dominica in order to understand how internet and network connections can be acquired and maintained in the area. For the second requirement, the potential staff member must understand how static and dynamic websites work. Knowledge of HTML/CSS is essential. Knowledge of Joomla, Dreamweaver, Flash and Photoshop is a plus. Most importantly, because of rapidly changing web technology and numerous web applications available, the potential staff member must always be willing to learn.

About the Consultant

Kyunghwan Choi is a Master's Student in Electrical and Computer Engineering at Carnegie Mellon University. He interned in IT teams at CMU, Allstate, and JPMorganChase. He will be completing his degree in May 2008.
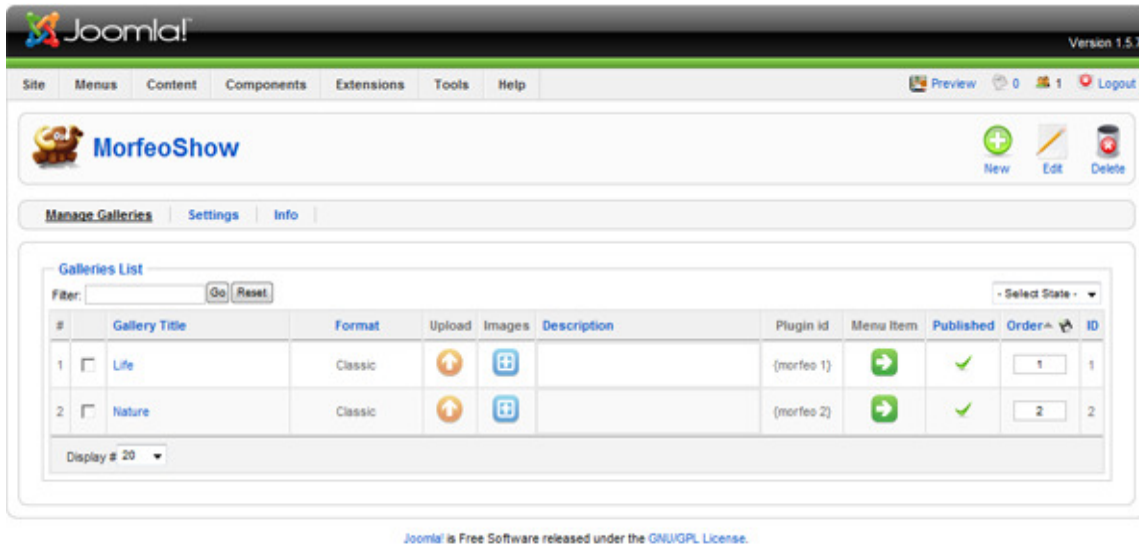
IV. Appendices

Appendix A. Gallery
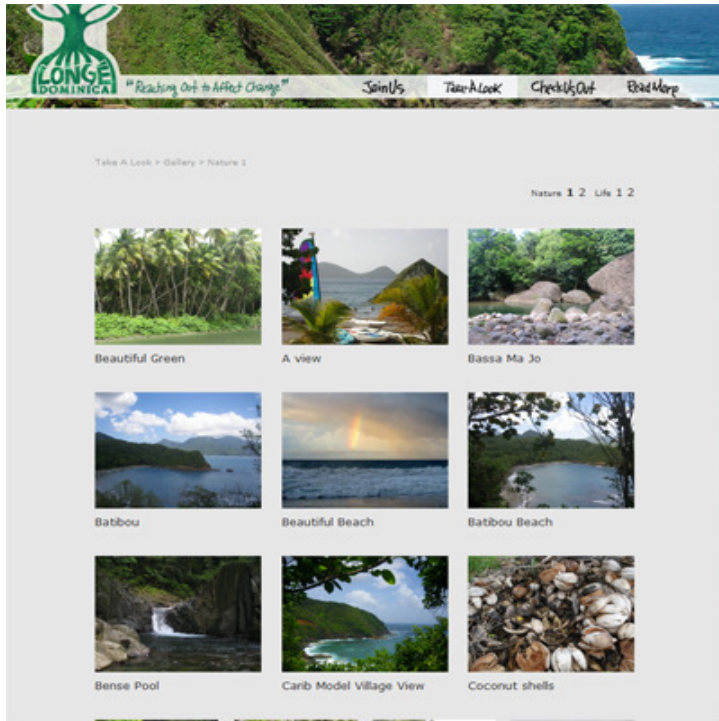
Static Gallery (Pictures cannot be enlarged)
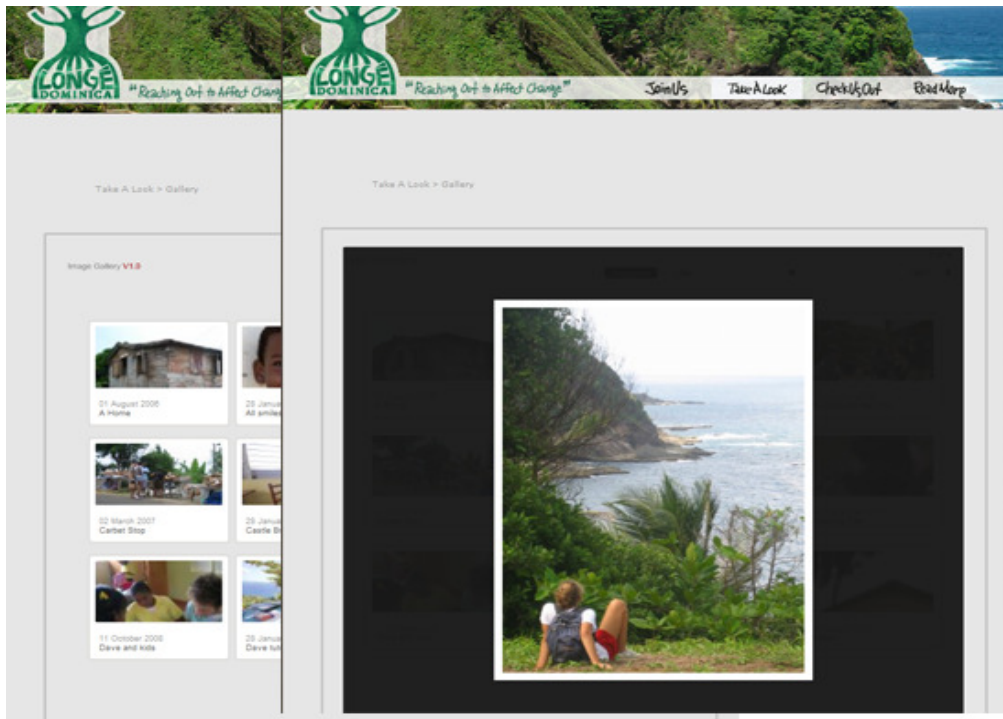
Dynamic Gallery (Enlargeable Pictures)

Easy to upload new pictures

Appendix B. Forms

PDF Format of the form

Dynamic web-based forms

Appendix C. Content Management System

Web-based Donor, Partnership management (Excel file not shown due to confidentiality)

Appendix D. Features Enabled by Joomla
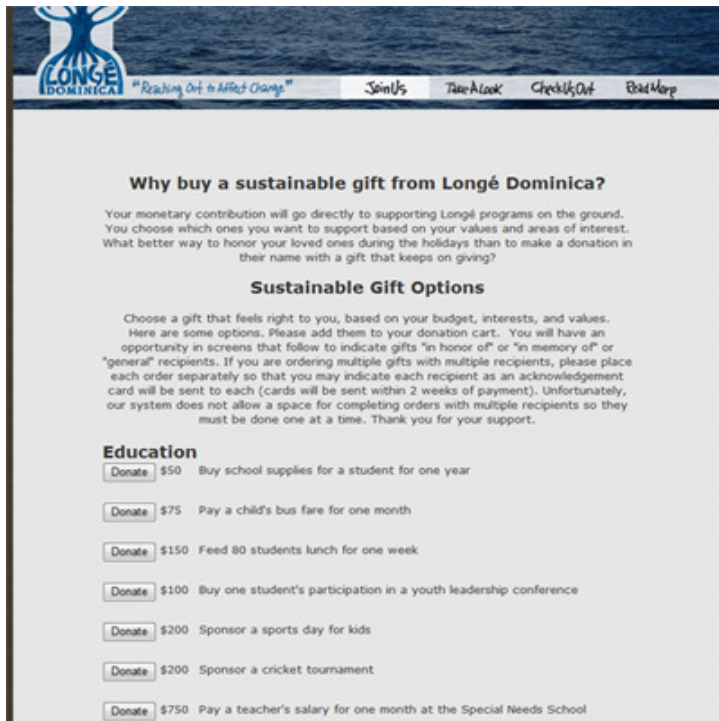
Dynamic Web-based donation page
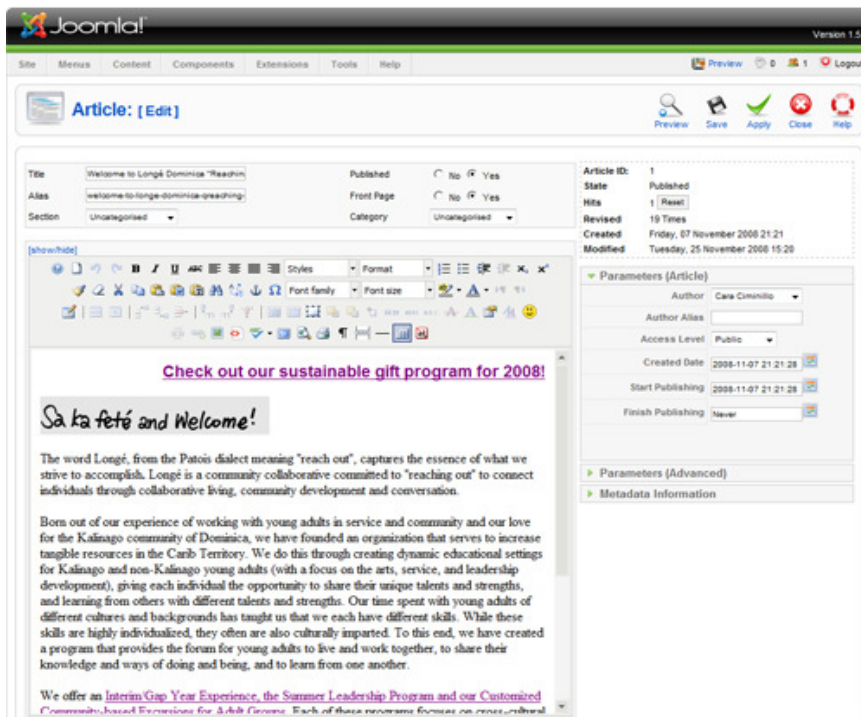
Web content can be edited on-line

Appendix E. Manual Created for Longé Dominica

Not included in this version of the document.