FINAL REPORT TO THE UNIVERSITY OF HAWAII MARINE OPTION PROGRAM / OEST300

Website Development at the Oceanic Institute

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PROJECT DURATION
Four Months
Abstract

For the last four months, I had been working on website development at the Oceanic Institute (OI). The main project was constructing an electronic-postcard site, using pictures from OI. Along the progress of the project, with the new knowledge I learned in dynamic web programming, I had also made a contact page. This is a report of what I had accomplished at the Oceanic Institute.

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Introduction

In today's world of information and technology, the World Wide Web is becoming an everyday part of people's lives. Businesses large and small alike are turning to the web to conduct business and show off their wares. The push for e-commerce has begun to make every business believe that they have to be selling their products/services on the web. There are many other reasons that a company should be on the Internet, from providing product/service and contact information, to servicing current clients or providing company updates.

The Oceanic Institute (OI) has recently had a new design of its website (http://www.oceanicinstitute.org/). OI is a private, nonprofit organization founded in 1960, and had recently celebrated its 40 years of innovation in the year 2000. With the ultimate goal of enhancing marine food production and sustainability of ocean resources, OI is dedicated to the development of aquaculture technology, biotechnology, and coastal resource management. On its website, users may find information about OI in the following areas:

- Basic information, consisting of introduction, location, history, facilities, people, etc.
- Challenges in research, technology, and stewardship.
- Current news & info, such as updates and current employment vacancies.
- Research programs, like the Finfish Research, Marine Shrimp Program, and Aquatic Feeds Program just to name a few.
- Technology Transfer.
- An educational page.
How people may help OI through contributions.

OI makes itself public to the world through its website on the World Wide Web, and the website provides the knowledge its users might require if they need information about the institute. Take myself for an example, if I had not had the information about OI from its website at my fingertips, I might not have had enough knowledge of the institute to initiate a request for an intern position. Moreover, since OI works with community, government, and many other organizations, the website can easily update clients on its latest news and research programs.

This internship was a valuable opportunity for me to gain experience and apply my studies to the real world. Two dynamic websites were being accomplished and published on the World Wide Web. One was the contact page, which provided OI's web clients a few ways to get in touch with OI. The other one was the electronic postcard website, which allowed users to send OI's postcards through the Internet. The following list were the learning objectives that I hoped to get out of the project:

**Learning Objectives**

- Get hands-on experience in website design and development.
- Gain knowledge on the subject of marine biology through the working environment.
- Improve report-writing skills.
- Enhance communication and presentation skills.

**Methods & Materials**

OI provided some of the materials that allowed me to get the project started. A computer with Windows 98 and Office 2000 software provided me the working
environment. An upgraded server of Lava Net made dynamic web programming possible. Dreamweaver 4.0 helped web page creation easier. A digital camera was there for me to take photos, and Photoshop 6.0 helped enhance the quality of the pictures and the creation of simple graphics. A lot of pictures were already taken at OI, and many of them were used in my e-postcard project. OI's Website Manager, Patricia Wood, who is a multimedia graphic designer, taught me in using Dreamweaver and Photoshop, and the techniques of improving picture quality and creating simple graphics. She and Janet Crawford, OI's Public Information Officer, assisted me in understanding OI's researches, and in prove-reading the texts that were published in my projects.

In order to accomplish the project, I used a variety of methods and materials. The project consisted of some amount of coding, with languages such as Hypertext Markup Language (HTML), Active Server Page (ASP), and other programming languages. When obstacles were encountered, besides looking for answers in books or consulting professionals and classmates, an Internet search was a good way to trouble shoot and find solutions using the general public and technical experts. Uploading and collecting photos for the e-postcard project provided me a variety of pictures to select from. Researching information content and communicating with people aided the project in providing an educational perspective.

Each task was presented to the project advisor through various stages of its development, such as the design, developing, and testing stage. A log was kept on each day of work for me to document the progress of the project. If there were changes to any previous developments in the project, they were documented as well for future references and maintenance. (Timetable – See Tables)
Results

- Contact Page: www.oceanicinstitute.org/contact.html

The contact page is published under OI’s homepage (www.oceanicinstitute.org). Clicking on the ‘CONTACT OI’ hyperlink on the homepage leads the users to the contact page (Figure 1). The contact page has information for the users to get in touch with OI, such as OI’s address and fax number. There is also a form for the user to fill out if he/she has comments for OI. The form lets the user fill out his/her first name, last name, email, and the message, and then he/she may either click on the ‘Click Here to Submit’ button to send the message through email to OI’s Public Information Officer, which then leads him/her to a thank-you-for-your-comment page, or click on the ‘Erase & Start Over’ button to correct the information. The email is sent by calling and executing an ASP page after the user click the ‘Click Here to Submit’ button. The last part of the contact page displays some of the OI’s staff information. The user may contact the staff under different department by phone or by email.

- E-Postcard: http://www.oceanicinstitute.org/e-postcard/postcard1.html

The e-postcard page is published under OI’s education site (www.oceanicinstitute.org/education/educationintro.html). Clicking on the far left icon at the left side of the page leads the users to the e-postcard page (Figure 2 – Please go to the actual site for a full view of this page). As the opening of the page suggests, the e-postcard allows users to send greetings to friends with pictures form the Oceanic Institute. The pictures for the postcards are divided into four categories: scenery, facility, fish and shrimp, and microscopic organisms. Above each picture is a short sentence that
entitles the picture. The user may select his/her favorite picture and click on it to go to the next page.

The second page of the e-postcard (Figure 3 – Please go to the actual site for a full view of this page) lets the user type in message in the text box. This page also has a simple layout of the postcard. The picture the user selected on the first page is enlarged on this page for a better view, and a description of the picture, mostly OI's research related, is added below the picture. After the user types in the message, he/she may click on the ‘Continue’ button to go on to the next page, or on the ‘Reset’ button to reset the message.

The third page of the e-postcard (Figure 4 – Please go to the actual site for a full view of this page) asks the user for sender’s and receiver’s information. There is also a preview of the postcard with the message the user typed in on the previous page. After filling out the textboxes, the user may click on the ‘Send Card’ button to complete the process. The last page of the e-postcard retrieves the information the user types in, and sends the postcard to the receiver's email account. On the screen (Figure 5), it shows the entire postcard again, with a thank-you message and a link directing the user back to the education page.

In the email the receiver gets, there are messages telling the receiver that he/she has received a postcard from the Oceanic Institute, and if the postcard cannot be viewed, he/she may click on a ‘click here’ button, which links him/her to a web page showing the postcard.
Evaluation of Learning

During the project, I had experienced building dynamic web pages using HTML forms and ASP. For a static page, users usually send email through Microsoft Outlook. With dynamic pages, users fill out a form on a web page, and by simply clicking on a button, the information is sent directly to the receiver's email. ASP also allows sending email with attachment, which was very useful for the postcard project.

The project also required some artistic work and writing skills. There was time I spent mostly on making pictures visually better with features in Photoshop. In order to write description for the postcard pictures, I had to better understand OI's researches, and consult what wordings are appropriate for public viewing. All these required me to learn better communication skills in order to exchange opinions with others.

Acknowledgments

OI's Website Manager, Pat Wood, inspired this project. She gave me many advices and suggestions on the artistic aspect of the project. She and OI's Public Information Officer, Janet Crawford, assisted me in understanding OI's researches, and in prove-reading the texts that were published in my projects. Much of the equipment was provided by OI, such as a computer, a digital camera, and softwares. I had also received a $400 fund from the University of Hawaii Marin Option Program for the support of this project.

References

- Apple-iCards
  
  http://icards.mac.com/WebObjects/iCards
- E-Q Cards
  
  http://www.mbayaq.org/epostcards
- NCSA – A Beginner’s Guide to HTML
  
  http://archive.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimerP1.html
- Oceanic Institute
  
  http://www.oceanicinstitute.org/

**Tables**

**Timetable**

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 20 – mid October</td>
<td>Construct contact page</td>
</tr>
<tr>
<td>Mid October – December</td>
<td>Construct e-postcard</td>
</tr>
<tr>
<td>December</td>
<td>Submit final paper to the Marine Option Program</td>
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</tbody>
</table>
Contact OI

Address: The Oceanic Institute
41-202 Kalanianaole Highway
Waimanalo, HI 96795, U.S.A.

Fax: +1 808 259 5971

You can also contact OI by filling out the form below:

Your First Name: 
Your Last Name: 
Email: 
Comments: 

Click Here to Submit  Erase & Start Over

Contacting Staff:

Public Information Officer
Janet Crawford
(808) 259-3145
jcrawford@oceanicinstitute.org

Business Opportunities
Joe Tabrah
(808) 259-3192
jtabrah@oceanicinstitute.org

http://www.oceanicinstitute.org/contact.html
Education & Training
Gary Karr
(808) 259-3146
gkarr@oceanicinstitute.org

Human Resources
Cyrus Siu
(808) 259-3101
csiu@oceanicinstitute.org

AIP (Aquaculture Interchange Program)
Pat O’Bryen
(808) 259-3176
pobryen@oceanicinstitute.org

Donations
Jim Muratsuchi
(808) 259-3111
jmuratsuchi@oceanicinstitute.org

Webmaster
Patricia Wood
(808) 259-3126
webmaster@oceanicinstitute.org

http://www.oceanicinstitute.org/contact.html
Send greetings with beautiful postcards from the Oceanic Institute!

Jewels along the Shore  View from Makapu'u Point  Makapu'u Beach

Underwater Sea Cage  Spark in a Bottle  The Origin of Super Shrimp

Flame in the Water  Red Snappers  Yello Tang

The Fish of Royalty  Rotifer  Glow in the Dark Diet

http://www.oceanicinstitute.org/e-postcard/postcard1.html  12/17/01
Hi Sherwood,

Just want to say hi to you with my postcard.

Ishuan
Hi Sherwood,

Just want to say hi to you with my postcard.

Ishuan
Hi Sherwood,

Just want to say hi to you with my postcard.

Ishuan

Thank you for visiting OI's e-postcard.

Back to Education