

e-MARKETING on the Energy Conservation Web

*Sidney Freeman
Janice Boman
Seattle City Light
Seattle, Washington*

Abstract

Seattle City Light's interactive Energy Conservation Web, located on the City of Seattle's Public Access Network (PAN), is available to customers who want to ask questions, request additional material and apply for utility energy efficiency programs and services by email. Frequently updated, the Conservation Web offers home and business owners valuable information on ways to save money and energy while sustaining the environment. In 1997, the opportunity to utilize the web as a marketing tool was realized and incorporated into the 1998 Conservation Marketing Plan. Integrating a Website into an overall marketing campaign produces the following:

1. 24 hour global accessibility to customers
2. Paperless results which save resources
3. Flexibility to offer product or service information quickly and update the information quickly with little additional expense
4. Ability to track site visitors for evaluation
5. Faster and more efficient processing of customer inquiries

Judges in the prestigious Web Marketing Association gave the 1998 "Best in Government Award" to the Seattle City Light Conservation Web and offered this lavish praise: "Very professional design. Great service on behalf of a municipality. Useful to anyone in the country, if not the world."

E-marketing opportunities to increase customer loyalty and proactively sell energy management products and services, as learned through a successful marketing experience, are discussed in this paper. Web components, external and internal marketing strategies, indicators of success, lessons learned and future marketing potential are addressed.

Introduction

Today's business environment demands that businesses have a Website and email addresses printed on employee business cards.^a

Web presence is, by definition, marketing. A Website, if only one page and a short description, is now common business practice. An easy-to-use, easy to access site can help support branding and build customer loyalty. Today's business site is an online extension of the storefront, allowing customers to shop, ask questions, leave comments and receive automatic notices of sales and special events. A creative, interactive, everchanging site directly reflects a company's image, as does the mediocre, dated site. Promoting image and products 24 hours a day 7 days a week to 158 million users is a serious business consideration. And these user numbers are growing.

^a Eugene Lee, Technology & Internet, **Puget Sound Business Journal**, May 21-27, 1999

In the Internet dark ages -- circa 1996 -- most business Websites were little more than glorified company brochures.^b

Seattle City Light (City Light) is charged with providing low cost, reliable electricity while meeting conservation goals and otherwise furthering the strong environmental policies of Seattle City government. The municipally owned electric utility has successfully operated energy conservation programs since 1977. E-marketing energy conservation, however, began less than five years ago. In 1995, City Light was one of 10 departments to pilot the Public Access Network (PAN), the City of Seattle's government Website where information is posted in three major categories: citizen, visitor and business. On the City Light portion of PAN, conservation was a primary subsite from the beginning. Initially offering energy efficiency information to local users (City Light customers and Seattle voters) and little more, the Conservation Web now includes interactive forms and customer achievements and covers areas and topics such as global warming and building sustainability.

Targeting Web customers is an exciting, ongoing, learning experience. Successful Web advertising is relatively unrestrained and untested. Technologies are changing and so are users. The challenge is to project image and product in a constantly evolving electronic medium. The customers are out there.

The second annual Ernst & Young Internet Shopping Study reported that 10 percent of all U.S. households shop online, up from 7 percent one year ago. A Pew Research Center study last November found that 11 percent of the U.S. population had bought a product online in the past 30 days.^c By 2003, Datamonitor predicts the number of global Internet users will nearly reach 545 million, surpassing the number of PCs installed globally. Internet access and value-added services (valued at \$25.5 billion in 1998) will reach a staggering \$154.5 billion by 2003.^d

To ensure customers can reach program leads, a staff directory with phone as well as e-mail information is maintained on the Conservation Web. Online application forms where the user applies for programs or asks for hardcopy information contain similar contact information. The goal is to make two-way, real time communication easy for customers. Customers often identify themselves in this never static, challenging, marketing arena, allowing City Light to target in ways unheard of ten years ago.

Web Components

Like any other business strategy, e-marketing differs, depending on the size of the business or business scheme. There are several roles to fill in the design, construction and maintenance of a Website but multitasking is possible. The best small business homepage on the Internet might be managed by one dedicated person. For larger operations which don't outsource the work, in-house teams are recommended. City Light utilizes the combined talents of the utility Webmaster, site designers, writers, graphic designers and marketing personnel.

Product and service information should be displayed clearly and in ways which accommodate quick and easy updates, changes or deletions as the need arises. The Web can provide opportunities to test products and services for customer demand. Feedback can be obtained about the customer through

^b Adam Worcester, Technology & Internet, **Puget Sound Business Journal**, July 16-22, 1999

^c Tim McMonigle, Technology & Internet, **Puget Sound Business Journal**, May 21-27, 1999

^d Web Site Journal, Vol 2, No 33, August 1999

various means including the much talked about “cookie” which gathers personal information about the user. Attention to current and new Web technologies and Web maintenance responsibilities should be part of an overall business plan as well as a component of any marketing plan.

Trust -- no crashes and no scams.^e

Tools to build a simple Website are easier to use. Microsoft Office 2000 takes a big step towards incorporating the Web into basic desktop technology. Home businesses, on the rise, are taking advantage of this and, through the Web, small businesses can give the appearance of larger operations. Government and big business are beginning to assign the same importance and resources to Web presence as to print and other media advertising. A small, creative and regularly maintained site with clear product descriptions and contact instructions can outperform a large, unwieldy site with dated facts and broken links. The ideal is for customers to come visit and continue to return.

To coordinate information technology skills with graphics, design, writing, marketing and print coordination skills from people who know the business makes practical business sense for a utility the size of Seattle City Light. So does crosstraining in crisis management (e.g., the server goes down or the Superintendent wants a news bulletin out immediately) Setting aside Web hosting charges, professional Web designer hourly fees range from \$85 - \$250. A Website can cost from \$500 - \$500,000 with the range dependent on incorporation of 1) an online brochure; 2) established e-mail link; 3) real time communication and 4) customer personalization. Fully functioning e-commerce Websites can approach \$1,000,000 with the cost compared to building a physical plant or other typical sales channel.

Design

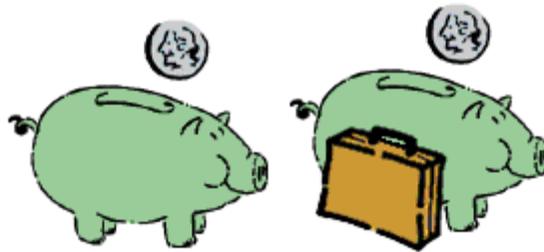
What we need is some breathing room, a bit of Zen-style emptiness, in short a little more space.^f

Candidly, some current Web design gurus claim there are too many distractions on already jam-packed sites. They suggest good Web design needs to pull back and freely use the print industry's white space standards. Flashy plug-ins with names like Quicktime and Shockwave, animations and complicated scripting results, not to mention the enormous amount of data, may overwhelm customers. On the other hand, predictions show that future use of the Web will be dominated by youth, at least into 2004; that those presently in the 1--18 year old age bracket will be fully comfortable with Web use; and that this new audience will not settle for less than state of the art Web presence and delivery. To try to strike a balance in design seems the feasible option.

Continuity is important. Web pages from the same site should indicate so. Harsh “attentiongetters” aren't necessary but it should be clear to the customer which business or organization's site he or she is visiting. Similar products and services should be linked or arranged together. Seattle's PAN, with the top navigation bar in place, plans to further synchronize City department sites so that visitors can recognize the City's brand. The residential and business piggies are one way the Conservation Web identifies its pages.

^e Heidi Pollock, The Art of Good Web Design, Web Site Journal, Vol 2, No 31, July 1999

^f Heidi Pollock, The Art of Good Web Design, Web Site Journal, Vol 2, No 31, July 1999



Analyze layout from the customer's perspective. If there's more than one page on the Website, at least one of the two should e-market from the customer's vantage point. Don't just list widgets. Simply announcing products or services and sitting back and waiting for customers doesn't give e-marketing a chance. Web users have come to expect extra value, a spin-off from early Internet freedom. Widgets and price lists don't have to jump up and down but a site selling energy efficiency devices benefits from a calculator calibrated for kilowatt hour savings, for example, and if selling Y2k products, it doesn't hurt to have a countdown clock on the homepage.

Don't tinker endlessly, adding the latest, greatest techno-goodies without giving thought to what browsers your customers use and the effects on them.^g

Right now, some scripting is essential to good Web design and there are many good scripting tools. VRML, XML, shtml, and other interactive programming languages are intriguing if not overdone. Javascript is the "write once, run anywhere" programming language developed by Sun Microsystems and supported by virtually every major e-commerce vendor. Javascript has the advantage of working well in both Microsoft and Netscape browsers. Javascript used frequently on the Conservation Web randomly generates conservation tips, for example, or global warming facts. The intention is to offer the customer new information each time the site is visited.

The recognized authority for Web design is the World Wide Web Consortium.^h

Construction

The first step for a medium to large business in constructing a Website is to develop a file database. *Not a single high end Web site exists today without a strong database supporting it from behind the scenes. From online bookstores that quickly query their stock to find every book ever authored by a "Joyce, James" to the travel site that can tell you exactly how many ways there are to get from Hollywood, California to New York City, there is a database mastermind behind it all. Customized Web pages that let you control your own content, shopping sites that remember your billing address and game sites that update your ranking every time you win a game are all good examples of a good database foundation...*ⁱ The Conservation Web database presently consists of files organized into five categories: Business Programs and Services, Residential Programs and Services, Neighborhood & Community Conservation, Global Warming and Sustainability.

^g Mark Dayton, What exactly is an effective Website?, Internetday-up listserv, August 1999

^h www.w3.org/; © 1999 W3C @ (MIT, INRIA, Keio), rights reserved

ⁱ Heidi Pollock, Web Site Journal, Vol 2, No 33, August 1999

Even if building the Website is outsourced, keep an eye on site construction. The pages should load quickly. Remember the first page is like a billboard. It has to grab the customer's attention fast; it's easy to surf on by. Briefly, construction items to watch for are:

1. first impression
2. overall look
3. reason to stay, and return, or "grabber"
4. loading speed
5. graphics and sound quality
6. text legibility
7. content organization
8. site navigation
9. credentials
10. disclaimer
11. and, most important, wording or words

Poor spelling and grammar are as harmful on the Web as in print. Web visitors are surfing through what a business has to offer and hoping it has what they want. They should not have to click very far to reach this destination. Including links to like businesses or trade allies in a similar industry helps build credibility. So do case studies and customer testimonials.

Consider carefully the user technology of the customer. The City of Seattle is sensitive to economic diversity among computer users locally. The public library and neighborhood community centers have personal computer workstations that, for example, allow free access to the Internet. The City maintains historical, statistical information about PAN and comprehensive monthly summaries tracking browsers and platforms used by visitors to the City site presently compatible with Netscape and Internet Explorer 4.0. The City recognizes American Disabilities Act (ADA) standards and cultural differences among users. New to the Conservation Web are translations. Based on anecdotal market research, small business energy conservation information is now posted in Chinese, Korean, Spanish and Vietnamese.

Maintenance

Half the secret to good maintenance is responsible content ownership. For example, the Washwise Qualifying Models page on the Conservation Web requires frequent updating to provide the customer with the latest and most accurate information. Fortunately, the WashWise program lead recognizes the value of the Web and knows current information goes a long way to building buyer-seller trust. Program leads or content owners who take pride in their Web material and are willing to use the Web for sales and customer service purposes find e-marketing can increase leads. A challenge for the Conservation Web is regular review by all conservation program leads and managers.

Constant monitoring with occasional refreshing keeps the Website from going stale. Maintenance also refers to troubleshooting and, as necessary, rebuilding a server which is down, page which is inaccessible or link which is broken. Mistakes such as these are visible, embarrassing and need to be quickly fixed.

External Marketing Strategies

In recognition of the Web's potential, e-marketing was first formally included in the Seattle City Light Energy Management Services 1998 Division Marketing Plan under the title, Web Marketing Strategies.

Specific widgets are defined as average megawatts (aMW) saved, City Light's 1998 annual goals being 6.26 aMW of energy conservation. Did e-marketing save megawatts? Indirectly, yes, by conveying conservation program information to residential and business customers and, in some cases, facilitating and accepting online applications for participation in utility programs that save energy and save money.

The fluidity of the Conservation Web content, which allows for continual editing, makes it possible to bring to customers the latest and greatest conservation news and energy savings deals. The variety of e-marketing approaches utilizing the Conservation Web for program promotion is shown in the following, non-prioritized bullets:

- Business cards and letterhead always include Web address
- Email message signature includes Web address
- Printed material with physical address has Web address
- Television and radio campaigns advertise Web address
- Links to trade allies (e.g., sustainable architects, builders and developers) established, posted
- Links to stores with energy efficient appliances posted
- Links to other City departments with comparable services posted
- Frequently Asked Question (FAQS) posted
- Customer case studies posted, linking to customer Websites
- Current schedule of trade and community fairs posted, carefully monitored
- Online registration of utility sponsored workshops/forums offered, encouraged
- Press releases, utilizing quotes and high resolution photographs, posted often and archived
- Banner advertising placed with *The Seattle Times* and Greater Seattle Chamber of Commerce

Internal Marketing Strategies

Important internal customers for Seattle City Light on the InWeb through the City of Seattle Intranet are the Mayor and City Council. The Superintendent's "How Are We Doing?" Web pages display the utility's progress in meeting annual goals negotiated with them. Conservation achievements are included. Another internal marketing example is "Tech Corner", a monthly column in City Light's employee newsletter, which offers information on using the Internet efficiently and lists industry related Websites. Customer service is enhanced by Intranet or InWeb connections among City staff running multi-departmental programs. Work on building commissioning, e.g., with the Department of Construction & Land Use or WashWise collaboration with the Department of Public Utilities Water Division is improved.

Web addresses of new program or events pages are embedded in email messages and forwarded to appropriate City officials. This technique, versus the printed memo or flyer, gains the recipient's attention with a click and can offer colorful graphics and pictures while saving resources. Every employee can keep abreast of the latest news particularly about their customers and partners through utility online announcements. Employees can access various information to answer customer questions. Employees that telecommute can use the Web to conduct utility Internet business remotely.

Success Indicators

Since beginning e-marketing less than 5 years ago, anecdotal evaluations of the Conservation Web are short term but favorable. Statistics and feedback from program staff are critical to measuring success. The condition -- subsite on department subsite on government public access network -- requires that

success, as measured by the numbers of visits paid to the Conservation Web, is contingent to a great degree on the Web success of the City of Seattle and Seattle City Light. These statistics show 1998 hits for the City, Seattle City Light and the Conservation Web.^j Customer feedback in 1998 through e-mail and by telephone indicates the Conservation Web is helpful. Hits on the Conservation Web vary with the seasons; there is more activity the Conservation Web during the winter months. The 1999 hits to date are not extraordinary but continue to increase.

According to Mark Dayton, a Web site designer and marketing consultant, effective Websites feature seven common characteristics:

1. Information is of interest and value as opposed to being just another fancy sales pitch.
2. Information is laid out logically; site is navigable without a struggle.
3. There's a compelling reason for the visitor to take action now whether it's to buy a product or request more information.
4. There's a reason for the visitor to return, such as frequently updated information, new products.
5. Visitors are comfortable providing an email address.
6. The Website is redesigned and revamped on a regular, maybe annual basis, not daily.
7. The Website accepts visitor requests for new features and tries, within reason, to honor these requests.

One way to define effectiveness is how well a site converts users to buyers.

Lessons Learned

In late 1995, Seattle City Light realized that in order to stay abreast of this new technology, a Web team was necessary. Since conservation programs are the primary product and service that the utility offers outside of the sale of electricity, full-time staff for conservation programs was assigned. We have yet to define how well the Conservation Web converts users to buyers. We know that a limited web presence is equal to an ostrich with head in the sand and that television, radio and print media still offer the "most bang for a buck" in audience penetration. However, e-marketing allows us to target customers and to provide value added services at a fraction of the cost of a traditional marketing campaign. In planning for the City Light Web presence, the decision to divide customers into business, resident and neighborhood may not have gone far enough. In the vast library of the Internet, specificity helps the user -- small business, building owners, big business/industry, hospitals, schools, apartment dwellers, etc.

The following summarizes our e-marketing experiences to date:

1. The 1998 Conservation Marketing Plan included the recommendation to promote programs through direct email advertising to targeted groups. Within a short time, the issue of "spamming" (junk e-mail) came to light and Web users' negative reactions caused us to abandon this strategy.
2. The City of Seattle privacy policy prohibits the use of "cookies" on any of City of Seattle Web pages. This interferes with our ability to collect information about customers electronically.
3. The case studies that we've prepared to date on customer accomplishments have been appreciated by those customers. Through the Web, it's easy to forward the Web page address to the media and various other interested parties nationally and internationally.
4. There is a need to continually remind staff that a) current and accurate content is critical to the success of e-marketing programs; b) the Web makes it possible to edit and produce information in a

^j City of Seattle Public Access Network (PAN), Statistics, www.ci.seattle.wa.us/pan/stats.htm

- radically short turnaround time; and, c) e-marketing on the Web strongly relies on the consistent promotion of the address on all marketing materials from business cards to television ads.
5. We need to make a stronger connection between paperless marketing which saves resources and the environmental stewardship image which Seattle City Light and the City of Seattle promote.
 6. It is not illogical to expect that City taxpayers want to reach all City conservation and environmental services with one click no matter what City department offers these services. This is currently not the case and we are working harder to stay ahead of our customers' reasonable expectations.
 7. Web addresses embedded in e-mail messages to City officials have been very favorably received with almost instantaneous replies acknowledging the event or product being promoted.
 8. The utility did a major education campaign on salmon recovery with print, television, radio and Web advertising. Information could be obtained via Web address or 1-800 number. Evaluating comprehensiveness in requests, the Web address significantly outperformed the 800 number.
 9. Customer service and delivery online must include the same excellent service, quality and response time expected by the customer in person or on the phone.
 10. The City of Seattle Web server, like other servers, occasionally goes down or "crashes". When customers view an error message or if they have to wait a long time to view the site, they become impatient and this reflects negatively.

These lessons and others are part of ongoing discussions as City staff work to redesign and expand the present City of Seattle Web, Seattle City Light Web and Conservation Web.

Future Trends and Opportunities

New developments in e-marketing as compared to telemarketing and print advertising are extremely volatile. An interesting phenomenon is a projected multimedia merger. This is best described as the integration of the Internet, radio and television into a single entity. For example, current technology exists to have a thirty-six inch screen television and personal computer with remote keyboard in your living room. The future is interactive television and the advertising potential is exciting as it becomes easier to gather customer information and e-market to a broader audience. Internet radio is booming.^k Web-Radio FM connects to over 2,500 channels worldwide. Envision one multimedia system with full service screens in each room and basic services including e-marketing kiosks with phone services where phonebooths now exist.

Although print newsletters are available online, electronic newsletters or ezines, both internal and external, are a current trend insufficiently utilized by the utility. *I'm a small business owner and I'm going to share with you how newsletters or ezines can be used to develop VERY STRONG relationships and increase online sales. Why develop a relationship? People don't want to worry about whether you will deliver as promised, whether you are a reputable merchant, or any other issues. If we desperately want something, we may mentally adjust the "risk factors" and buy. But overall, we're just too lazy to investigate, get referrals and do whatever else the smart buyer would do before purchasing from an unknown source. I've found ezines have enabled me to reinforce and develop very strong relationships with my customers. Let me be very clear here, by customer, I do not mean that subscribers to my ezines necessarily plan to buy anything from me. They subscribe to get valuable information. However, online, there's a common understanding and business model that has developed: "You get access to my content and I get to give you a little advertising with it." Of course, some sites on the Internet, like the Wall*

^k Richard A. Martin, Brave New Radio, **Seattle Weekly**, August 12, 1999. Martin's simple steps to Internet radio [abbreviated]: 1) turn on computer; 2) log on to Internet; 3) Go to www.real.com and download free RealPlayer G2 and/or go to www.microsoft.com and download free Windows media player; 4) surf with Broadcast.com or Spinner.com.

*Street Journal, are able to charge for their content. But I would guess that over 99% of online content is free and supported by some type of advertising revenue.*¹ Creative, effective on line newsletters build better customer and employee relationships.

E-commerce is catching on fast.^m A fully functioning e-commerce site would provide secure access to Seattle City Light customers. There are Web applications which allow a customer to view real time electricity usage on an hourly basis or view current usage versus historical usage for home or business. *We are witnessing our industry unfold as online banking, utilities, brokering and more begin to incorporate new e.bill technologies. You need to look at where your e.bill solution fits your customers and how to make the whole e.bill process convenient for them. If your e.bill solution fits your customers well, it should be offered via a Web portal.*ⁿ

America Online/Netscape, Excite, HotBot, Lycos, Microsoft and Yahoo are Web portals which offer every service imaginable except for e.bill (online billpaying service). Currently, small companies such as bills.com and paytrust.com, offer e.bill services exclusively. Mergers of the larger Web portals and smaller companies offering this specialty service (e.g., Yahoo) are a good assumption.^o In the future, companies may choose to outsource online billing services or provide the option as part of external customer service. Seattle City Web staff and consultants are looking at how best to offer online billpaying as the option becomes more accepted and popular with customers.

With big backing, Canada is piloting an interesting program. Secure, paperless billpaying and document handling is happening with strong support.^p

While there are reasons for not advertising with unsolicited email, email by permission is an increasingly acceptable form of communication with customers.

International commerce is a business strategy enhanced by the Internet. Forty percent of the current Web population is non-English speaking. Future projection is sixty percent and the second most popular language for Web communications is Japanese. The Conservation Web's first effort at translations, targeted towards small business, is complete. Future strategies include registering with international search engines.

Other Web marketing opportunities for City Light include expanding the use of electronic surveys and evaluations. Currently, we have a limited number of survey results available on the Conservation Web. Very few of these evaluations were conducted via the Internet. Worth very careful attention, as

¹ Ramon Ray, Newsletters/Ezines, Internetday-up listserv, August 1999. Ray's simple steps to newsletters on the Web or ezines [abbreviated]: 1) Make sure it's reaching the correct audience. 2) Send great content. If you don't have anything to say, don't send a newsletter. It doesn't have to be sent every day or week or month. 3) Encourage user feedback and react to it.

^m For example, Forrester Research predicted business-to-business e-commerce would total \$17 billion in 1998. By last November, the company had raised its forecast to a whopping \$109 billion. Tim McMonigle, Technology & Internet, **Puget Sound Business Journal**, May 1999

ⁿ Peter Greene (infostr@inxpress.net), Portal Play, **e.bill**, August 1999

^o CheckFree, which lets utilities and other companies send bills and collect payment through the Internet, is set to offer its service through Yahoo! in the next few months. Gilles Castonguay, New York (Reuters), Yahoo News, September 4, 1999

^p The emphasis is an evolution of bill payment and document handling, rather than a complete paradigm shift in how Canadians process their mail and personal business. Canada Post and Cebra Inc, a wholly owned subsidiary of the Bank of Montreal, have taken a leadership position with this new delivery system and technology. Michael Lawless (infostr@inxpress.net), The Electronic Post Office, **e.bill**, August 1999

technology advances, are copyright issues including ownership of domain names and failure to include disclaimers. The lightning speed of free flowing information over the Internet makes privacy and ownership the concerns of any company or individual conducting business electronically.

Summary

Staying current on Web technologies and keeping informed on available software is an e-marketing priority. City of Seattle and Seattle City Light Web staff are working diligently on redesign scheduled for implementation in early 2000. In addition to offering better coordinated City account information, online billpaying and a residential energy and water profile service with the Public Utilities Department, City Light web staff hope to make site navigation easier and add entertainment to the pages. E-marketing on the Conservation Web will also include more randomly generated energy facts, online surveys and at least one contest with a theme related to the conservation mission.

Creating a subsite that is interesting and helpful increases the likelihood customers will visit the Conservation Web again. Allowing customers to communicate with us 24 hours a day, seven days a week while promoting the utility brand and image is the ultimate goal. Credibility on the Internet is not for sale, it has to be earned. Gaining trust through give and take real time communication is the key to success. It is interactivity which helps guarantee e-marketing a place in buyer-seller communications.

References

1. City of Seattle Public Access Network 1999 promotional brochure
2. Bruce Blood, webmaster, **Seattle City Light**
3. **E.bill Magazine** [www.ebillmag.com], August 1999
4. **Electronic Commerce World**, Business Solutions through Technology Integration, July 1999
5. **Electronic Commerce World**, Supplement, EC/EDI Software Directory, July 1999
6. Ted Flanigan, independent energy and environmental consultant, *The Forgotten Majority: Small Businesses, Hidden Opportunities*, **Esource Small Business Series**, ©1999
7. Angela Gunn, *Gerbil in a Microwave*, **Seattle Weekly**, August 12, 1999
8. Greater Seattle Chamber of Commerce, **Web Watch**, Issue 14, July/August 1999
9. Preston Hampton, **Seattle City Light Network**, September 1999
10. InternetDay [www.internetday.net], August 6, August 11, August 18, August 26, 1999
11. Jakob Nielsen's Website [www.useit.com], Usable Information Technology
12. Jayde Newsletter [www.jayde.com], Issue 6, July 1, 1999
13. Net Commerce Magazine [www.netcommercemag.com], September 1999
14. **Online Northwest**, Teleport Internet Services, Inc., 3rd quarter, 1999
15. **Puget Sound Business Journal**, Technology & Internet, May 21-27, 1999; July 16-22, 1999
16. NancyEllen Regier, Information Technology Department, City of Seattle
17. Dana Rice, intranet webmaster, Seattle City Light
18. Elizabeth Schilling, *Web Futures*, Seattle City Light, May, July 1999
19. **The Seattle Times**, *Workers of the World Unite Behind Your Keyboards*, September 2, 1999
20. Traffic Jammer [TRAFFICJAMMER.com], promotional e-mail, August 11, 1999
21. Web Site Journal 1999 [websitejournal.com], Vol 2, Nos. 26, 27, 30, 31, 32