

E-Government – Enhancing Communications Using the World Wide Web

Jennifer Tucker
Environmental, Safety & Health Sector, ADI Technology Corporation
1800 N. Beauregard St #200; Alexandria, VA 22311

The World Wide Web provides Department of Defense (DoD) Environmental, Safety and Health (ESH) Managers a unique forum for communicating with their internal and external stakeholders. Maximizing the potential of this new forum, however, is often harder than expected. This paper reviews a recent Brown University study that analyzed the effectiveness of “e-government,” suggests some ways that ESH managers might use the Internet to effectively communicate with different audiences, and proposes a model that can help managers design and populate a website that is useful and easy to use. Finally, we discuss specific issues facing DoD offices with respect to website development, and provide some tips for working in this electronic setting.

Well-run, efficiently organized websites that offer useful services to citizens may have a significant positive effect on the attitude of citizens towards government...

Darrell West, Brown University

Surfing the web has become popular with millions of Americans. On the lighter side, we visit friends' homepages, browse through on-line reviews, and check out the news. On the serious side, we download tax forms, complete on-line banking transactions, register our cars, and search for services and goods.

The “dot-com revolution” has changed our lives, and our transformation into a web-based society is well underway. The surfing American public generally now expects most organizations to have websites that provide the information and services they need.

How can this revolution support Environmental, Safety and Health (ESH) Managers needing to get data to the field or to a curious public? In this paper, we offer ESH Managers insight and tools to assist in successfully entering the “dot-com” domain.

E-GOVERNMENT – A NEW AGE OF PUBLIC SERVICE

The Information Technology industry has inspired many new “e-terms.” One of these is “e-government,” the delivery of government information and services over the Internet.

Many government agencies have voiced a strong commitment to using the Internet as part of their communications strategy. Despite this commitment, a recent nationwide review of government websites (West, September 2000) revealed that many agencies, including DoD, are having difficulty meeting the needs and expectations of their audiences.

“The E-Government revolution has fallen short of its potential. Government websites are not making full use of available technology, and there are problems in terms of access and democratic outreach.”

The study surveyed 1,813 State and Federal websites, and scored them for inclusion of features, including contact information, service/publication offerings, databases, comment forms, and feedback mechanisms. Here are some of the findings:

- There is limited opportunity for citizens to interact with the agencies surveyed. While 68% of the sites included an e-mail address, only 15% had a comment area, and only 5% offered e-mail updates.
 - Only 22% of sites surveyed offered any kind of service, such as the ability to order a publication or file a complaint.
 - Agencies could do more to anticipate and answer visitor questions, with only 34% of websites reviewed including a “Frequently Asked Questions” area.
 - Little effort is spent reaching out to non-English speakers, with only 76 of the 1,813 websites offering foreign language or translation services.
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Despite this bleak analysis, the study offered recommendations for agencies wishing to improve their e-government offerings:

- Improve website organization and structure
- Enhance accessibility for constituencies
- Provide means by which stakeholders might better connect and interact with the agency

Technology is like a steamroller. If you are not on the steamroller, then you are destined to become part of the road.

Anonymous

APPLYING THE LESSONS LEARNED - IDEAS FOR AN ESH WEBSITE

What lessons can the ESH Manager use from this study to develop a website that realizes the potential of e-government?

This study demonstrates that an effective ESH website, at either the Program or Field level, requires more than just technical content or reports posted on a server. In fact, with the many technical resources available today, it is not difficult to create websites that are both interactive and service oriented.

First, the ESH Manager must ask and answer:

- Who are my audiences/stakeholders?
- How can I reach them through the web?

- What information and/or services can I deliver that will enhance their lives?

There may be multiple answers to these questions. For example, an audience for an ESH Headquarters office may include the Commands and Field locations that rely on that office for guidance on implementing policies and regulations. The audience for an ESH field office may include base operational staff. Program and field offices may also serve as reciprocal audiences, as they exchange data through information broadcasts and data calls. Other audiences are likely to include regulators, Remedial Advisory Boards, and the general public.

How can an ESH office reach these audiences through the web? Different types of computer systems provide different levels of access to different audiences.

For example, many Commands and Field locations communicate with internal stakeholders through **Intranets** - closed, restricted systems that only allow access to a specific group (e.g., the members of a specific organization). These offices communicate with outside stakeholders through **Internets** - open systems accessible both internally and by the general public.

To complete the picture, the table below suggests examples of e-government services that ESH Program and Field offices might deliver to its different stakeholders.

| Provider | E-Government for Internal Stakeholders (Via Intranets) | E-Government for External Stakeholders (Via Internets) |
|--|--|---|
| Headquarters Level Command Level ESH Program Offices | <ul style="list-style-type: none"> • Information Sharing & Technical Assistance • Publication libraries and listings • Web-based training • Repository of ESH tools (checklists, databases) • Interactive forms for data collection/reporting • Discussion forums, community bulletin boards • Search engines to find Subject Matter Experts and other resources • Lessons learned, success stories, FAQ's | <ul style="list-style-type: none"> • Descriptions of the Program/Command's vision and mission • Policy documents, regulatory reports • Public Information and Reports • Public comment areas (to respond to Public Notices and other documents) • Outreach publications (brochures, posters) • Event calendars and Points of Contact • Lessons learned, success stories, FAQ's |
| Field/Activity Level Base/Facility ESH Offices | <ul style="list-style-type: none"> • Operational information and feedback forms for base personnel • Internal and self-assessment reports • Detailed Point of Contact lists and emergency reporting procedures • Event Calendars & local environmental and community ESH resources | <ul style="list-style-type: none"> • Administrative Records and public documents (e.g., for a BRAC site) • Facility contact information • Local outreach information - Site reports, local ESH resources (e.g. recycling centers, ESH activities and organizations) • Remedial Advisory Board Documents and FAQ's |

WEBSITE DESIGN – A STARTING POINT MODEL

Once an ESH Manager answers the questions above, it is time to design the website itself. Website design is an inter-disciplinary project, requiring specific knowledge and skills:

- **Content Owner.** The person who provides and maintains the website's content (e.g., material listed in the table above).
- **Visual Designer.** The person who designs the visual look and feel of the website, and who helps establish structure and organization.
- **IT Specialist (Webmaster).** The person who programs (or "codes") the site, and works with server managers to post site files.

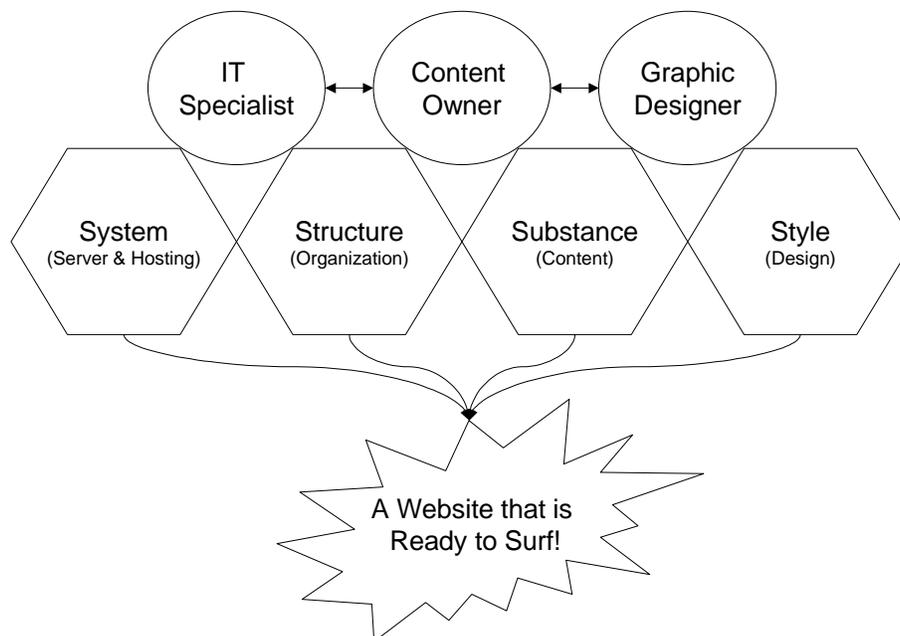
Depending on the staff and tools available, the roles outlined above may be filled by just one or two individuals. For example, many IT specialists who focus on website administration are also skilled at visual design. Additionally, many software companies now provide programs that make website design similar to word processing, blurring the line between content writing and coding.

Together, the right tools and the right people make creating and maintaining an ESH website a seamless process – the effort required then depends upon the type and complexity of services that the ESH Manager decides to provide.

The figure below presents a model combining the skills described above with the four critical elements in building or overhauling a website.

- **System** (Server & Hosting) – The network and server drive the types of services that the website can provide to the audience that can access it. The IT Specialist and the server administrator must work together to ensure compatibility between the website and server.
- **Structure** (Organization) – Organizing website pages is different than organizing a report. Many resources are available to guide this structural process. Ultimately, screens must relate to each other in a logical, tiered way, guiding the user to the target content.
- **Substance** (Content) – The website should have a clear stated purpose, and contain accurate, relevant, and *current* information and links to support that purpose. This is a long-term process and investment!
- **Style** (Design) – Designing for the screen is different than designing for the printed page. Text must be easy to read, and graphics should be selected to support the content.

Warning: this model will work only after considering the target audiences and their information and service needs. Once that is established, the right people, the right tools, and the model below can result in a website that truly meets the goals of e-government.



There are three additional points. First, don't forget the needs of non-English speaking and disabled communities - they are customers as well! For example, an ESH Site Manager surrounded by a Spanish-speaking population might consider using a site translator to reach a wider local audience.

Second, remember those left behind the electronic revolution. A website doesn't replace other outreach tools. For example, a Facility located in a disadvantaged or rural community may have an audience not connected to the Internet. Posting public notices on an Internet site is only useful to those who have access.

Third, don't start a website unless you are willing to invest in its maintenance. Commit to reviewing content and links monthly, so that it remains accurate and relevant. Include a "Last Updated" date – and make sure that the date is never more than 30 days old.

DoD WEBSITES - SPECIAL CONSIDERATIONS

The E-Government Report provides other insights with respect to website design as well. While all are valuable concepts, consider them carefully in light of the sensitive and critical nature of the DoD mission. Here are some issues to consider.

The considerable mission benefits gained by using the Web must be carefully balanced through the application of comprehensive risk management procedures against the potential risk to DoD interests.

Department of Defense

Security. The electronic components that allow an audience to interact with an agency through a website are often the same components that make the DoD website and server more open to hackers (those who break into computer systems for illegal/illegitimate purposes). Before beginning the website, consult with your server administrator to ensure that the site doesn't include components that compromise security.

Contact & Facility Information. While it is important to provide relevant contact information, it is also vital to preserve personnel privacy. Furthermore, listing the number and functions of personnel at specific locations may unwittingly provide sensitive information about the placement and concentration of military assets. Consider estab-

lishing a central, anonymous e-mail address for the public website, instead of listing names.

Finally, DoD requires that "all information placed upon publicly available Websites be properly reviewed for security, levels of sensitivity, and other concerns before released."

When beginning any type of website effort, coordinate closely with the appropriate Server Administrator and Public Affairs Offices, so no aspect of the website compromises DoD security and interests. Specific Components also issue guidance documents to aid in website creation – consult these documents to identify the requirements that apply to your website.

Communication is an important part of ESH management. By blending technology, technical content, and design, ESH organizations can maximize e-government's potential and effectively communicate information to all stakeholders.

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AUTHOR CONTACT INFORMATION

Jennifer Tucker, ESH Sector
ADI Technology Corporation
Phone: 703-933-8275
Fax: 703-933-2639
<http://www.aditech.com>
Email: Jennifer.Tucker@aditech.com
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