

# Weblog Technology for Acquisition Program Management

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First developed in 1992, weblogs are “logs” of material distributed across a Web or network—a collaborative tool that facilitates the chronological organization and archiving of material on a specific subject. Links to multiple related topics can be located on a single page, and the primary advantage is to allow the creation of Web content without the need to manually construct Web pages. The growth of weblog use has been exponential; millions are currently in operation.

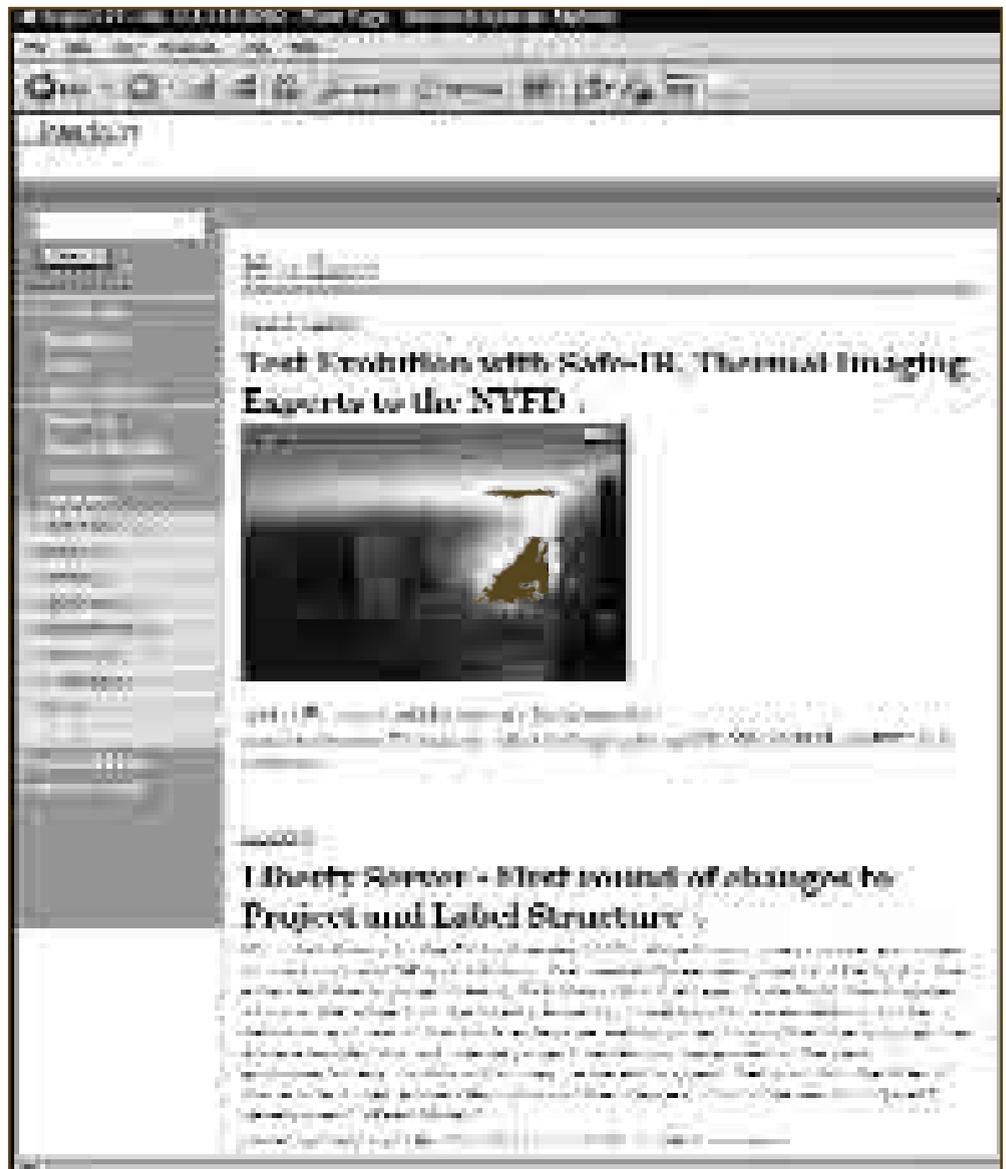
The power of weblogs and “bloggers” (those who contribute to weblogs) was demonstrated in 2004 when documents used in a CBS *60 Minutes* segment on President Bush’s National Guard service were exposed as forgeries. Weblogs allowed a number of individuals to communicate rapidly and share their knowledge about the state of type-writer technology at the time the documents were supposedly written.

## Streamlining Business Communication

Private industry is increasingly using weblog technology to improve business operations. According to a 2004

article in the *Wall Street Journal*, managers are increasingly turning off or ignoring their e-mail in order to get work done. But while managers may get the work done, they may also miss critical communications.

Weblogs overcome many of the problems associated with conventional e-mail. Messages and discussions are orga-



Liberty Project Weblog

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nized by specific topics that are custom tailored to the needs of each organization. There is no need to search through hundreds of messages to find the one of interest. Only authorized participants may post material, which eliminates the problem of spam and other unwanted communications. And because all material and discussions are saved, weblogs provide an enabling method of knowledge management and an archival record of important documents, decisions, and the discussions that led to those decisions. Because of these advantages, industry has found that weblogs can be used as a collaborative project tool.

In today's acquisition environment, rapid sharing of formal project documents and project-related material is necessary, but the bulk of the project life cycle communication currently relies on nothing more than e-mail, corporate or capital knowledge of the project, and an exceptional memory of the progressive information shared at any given time period. This common practice makes it very difficult to bring new team members and project participants up to speed efficiently when they join the project in progress. Critical working information is lost in e-mails, deleted, or stored as intellectual capital in the minds of the original project team members. When sponsors or other stakeholders request information not in the form of a formal document, the working information in play must be located or recreated and summarized in response to each request.

## **Navy Undertakes Study of Weblog Technology**

The Department of Defense Rapid Acquisition Incentives-Net Centricity (RAI-NC) Pilot program office recently completed an opportunity analysis for implementation of weblog technology to accelerate test and evaluation programs. Managed by the Department of the Navy e-business Operations Office and the Naval Undersea Warfare Center, the process was designed to assess weblog technology's ability to provide DoD/first responders with a low-cost alternative for a secure "communications hub." This was accomplished by providing a prescriptive framework for structured collaboration and a net-centric method to share program/project data. Sharing was done through user authentication on a centralized Internet/intranet while employing commercial standards and a variety of software applications. Additionally, the project specifically evaluated the applicability of weblog technology as a tool for program managers to disseminate information, control information access, and capture knowledge generated during product development.

Weblogs have the potential to support two of the top five DoD transformation initiatives:

- Change the force and its culture from the bottom up through the use of experimentation, transformational articles (operational prototyping), and the creation and sharing of new knowledge and experiences



- Implement network-centric warfare as the theory of war for the information age and the organizing principle for national military planning and joint concepts, capabilities, and systems.

Weblogs can also assist in moving DoD acquisition programs closer to an integrated digital environment. The IDE initiative is intended to establish data management systems and appropriate digital environments that allow every activity involved within a program to exchange data digitally throughout its total life cycle. An IDE has been required of all acquisition programs since 1997, but programs have implemented this directive with varying degrees of success.

### **Proof: The Liberty Project**

An active night vision technology was chosen for the demonstration project of the weblog software. To execute the project, a collaborative team was formed that included the Office of Naval Research; Naval Undersea Warfare Center (NUWC); Ford Motor Company; San Diego Sheriff's Department; the New York Fire Department; the Newport, R.I., Police Department; San Diego First Responders; and the Georgia and Rhode Island National Guard. Traction software was selected to adapt commercial weblog software to support the night vision system test and demonstration. (Traction was funded in 2000 with investment from In-Q-Tel, a Central Intelligence Agency-funded nonprofit company that supports technologies that may benefit the U.S. government.) Epsilon Systems Inc. provided the systems engineering support for integration of the night vision system for the various test scenarios. Dr. David Brown and Dale Shrader of the Defense Acquisition University Capital/Northeast Region provided fee-for-service consulting support on the acquisition aspects of the project. Tammi McVay of NUWC was the program analyst project leader for the government.

The active night vision system demonstration, named the Liberty Project, provided a realistic scenario for demonstrating the weblog technology in test and evaluation (graphic on page 26). Developed by the Ford Motor Company and provided without license fee for DoD testing, the project had many stakeholders located at a variety of locations, and field tests were also conducted by multiple geographically dispersed organizations. The Liberty Project provided a realistic test case to validate the perceived benefits of weblog technology. Although limited to the test and evaluation segment of program management, the project demonstrated benefits for any phase of a program.

A specific success of the weblog during the project was the ability to rapidly disseminate technology availability by the Department of Homeland Security during a terror alert. During this alert, intelligence indicated that terrorists might be planning to use limousines packed with ex-

plosives to attack financial centers. One of the tactical capabilities discovered during testing was the ability of the system to see through tinted glass windows. Test data along with film footage of this capability were immediately made available to those who might have use of them. Operational assessment reports done in the field by first responders and military personnel were available to assist in determining whether the technology would be of use in mitigating the threat. This example also demonstrated the value of the weblog in moving from requirements-based to capabilities-based systems. As a result of this information dissemination capability, three illuminators were delivered to the Technical Assistance Response Unit of the New York Police Department for use during the 2004 Republican National Convention.

Team communication was also demonstrated during the project. Prior to an evaluation, users were able to review results from previous efforts and use the information to formulate their own tests. Test results were available to stakeholders immediately after the test was conducted. The old adage of one picture being worth a thousand words holds true. Movie footage of surveillance operations by the Georgia National Guard providing security for the G-8 summit was available during the summit. One user of the weblog commented, "I wish I'd had this available all through those PMRs [*program management reviews*] I sat through during my ten years as a tester."

### **Communication, Security, and Cost Saving**

Keeping people informed is always a challenge for any organization. In addition to archiving program information, one of the strongest capabilities demonstrated during the project was the information dissemination capability of the weblog technology. Traction software provided a news reader function and real time chat capability. Using the newsreader function, a program manager can get real-time updates to activity within the weblog. Author Brown entered the project while it was under way and found it easy to come up to speed by reviewing the chronological discussions, test plans, and test results. He also found it easy to monitor progress even though he was on temporary duty at multiple locations teaching DAU courses through the conclusion.

Another strong feature of this technology is individual control of the amount and timing of information a user receives. A program manager, for example, may want real-time updates of activity as it occurs in the program, but that volume of information might overwhelm someone like a program executive officer who could be overseeing several programs. Update options range from the real-time updates using the news reader to hourly, daily, or weekly executive updates; they may include complete text or just the headline or title of the material. The weblog technology provides a "smart pull" capability as opposed



## **Weblogs can assist in moving DoD acquisition programs closer to an integrated digital environment.**

to current methods that push information—which can lead to information overload.

Protecting program information is another major feature of weblogs. Although the Liberty Project used a secure site connected to the Internet, weblogs can also operate across secure networks. This feature enhances information assurance and security. Access to information can also be controlled by a program manager. Information is generally divided into a number of area folders, and access to these folders, as well as read/write privileges, can be set for individual users or user groups. This enables a government program manager to allow access to relevant program documents such as draft requests for proposal to contractors, while keeping source selections data in government-restricted folders that the contractors would not be able to see.

Another area of the study looked at quantifying potential cost saving for the use of weblog technology as opposed to a traditional method of e-mail communication. The comparison found an approximate 8:1 saving on bandwidth and 100:1 saving on storage requirements. This was primarily the result of posting data once in a central location (rather than sending large e-mail attachments to multiple people) and the separation of project-specific communications from general e-mail traffic. Although in-

dividuals may create separate folders to store project-specific e-mail traffic, movement of mail into these folders is mostly a manual process. One study showed that a typical e-mail user will spend 78 hours per year managing his or her mailbox.

### **Next Steps**

The next phase of the program, if funded, will look at expanding the use of the weblog from test and evaluation to all aspects of an acquisition program. One approach might involve implementation of weblog technology on an acquisition program as part of the plan to achieve an integrated digital environment. This will demonstrate the scalability of the technology to handle a larger number of activities and users across the life cycle and will further validate the predicted savings in time and cost. It can also be used to validate the knowledge capture potential for use on other programs. Later efforts would focus on expanding the technology across the DoD enterprise to achieve bandwidth, storage, and cost saving.

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