

Obtaining the User Feedback on the Agrometeorological Products – Experiences from USA

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Abstract

The internet has vastly increased the Joint Agricultural Weather Facility's (JAWF) ability to disseminate data to the public. However, the dissemination of data to the public is inherently connected to what users want. Obtaining feedback is paramount to making the determination of what products to make available and in what format. This feedback can be obtained through either active methods or passive methods. Both methods can provide useful and necessary information to enhance a website's dissemination ability.

Introduction

Disseminating information is a major part of the JAWF's mission. The advent of the internet has given agricultural weather products a far greater audience than just a decade ago. With the internet, however, an automation of sorts has taken place. No longer do users make contact to request specific products, but rather information is loaded en masse for the public to peruse. Therefore, a level of user-provider interaction has been forgone in an effort to place as much information as possible onto the global ether. Still, though, a need arises to obtain information on those obtaining information. The knowledge will better allow the disseminators to organize products and information to suit its audience.

Feedback

JAWF relies on primarily two methods of user feedback to help shape the flow of information over the internet. They are active feedback and passive feedback. Active feedback results when users initiate direct contact with those providing the products. Passive feedback results when information on users is relayed automatically through the connections made over the internet.

Active Feedback

Active feedback can be any method in which the user intentionally provides suggestions, comments, opinions, etc. Generally the main vehicles of active feedback include telephone, email, and online forms. Telephone feedback is simply a user calling a contact person and relaying their feedback verbally. Email feedback is when a user emails the webmaster or contact person for a web page regarding content, style, etc. for products on that web page. These two types of feedback can be the most direct way of determining user interest, but can be the hardest to categorize for analysis. The difficulties with telephone and email feedback arise when a web master receives hundreds or thousands of calls or emails regarding products. The web master cannot possibly accommodate all suggestions or requests, so categorizing content in the messages would be necessary to determine commonalities. Any commonalities could then be used to improve a product's content or how it's

disseminated, however, attempting to categorize thousands of telephone calls and emails would be difficult and tedious. Another way to receive active feedback from users is through an online form. Online forms generally consist of various categories with a finite number of options for each category. The user would select specific options in each category that best reflects the user's opinions. When the user has completed a form, the form is submitted and saved on the host website for analysis by the webmaster. By providing the user with pre-determined categories and finite options in each category, analyzing the input can be done through software and results achieved quicker than through telephone and email feedback.

Passive Feedback

Passive feedback occurs when global information about the user is sent automatically to the host website. The global information sent generally consists of date and time the user connected to the website, operating system, browser type, and any other time or system specific information related to the user's connection. The information is sent to the host computer and recorded in a log file, which can later be analyzed using software. This type of feedback is probably the easiest to obtain and does not require action by the user, however, the information provided is indirect and user opinions regarding product content and style have to be interpreted.

JAWF Experience

JAWF uses a combination of active feedback and passive feedback to determine users' opinions on content and style of products. The active feedback primarily used is email. Each web page contains email contact information at the bottom. Users can click on the hyperlink and send a message to the webmaster. Email messages are saved and can be reviewed later to determine if users are requesting or commenting on common items. JAWF has found email to be best utilized as a quality control. Figure 1 displays an example of an email regarding quality control of a website. A user that finds a broken link or incorrect information on a website can quickly send an email and notify the webmaster of the problem. Other forms of email feedback include requests for detailed information on an agrometeorological product (Figure 2) and requests for data used in agrometeorological products (Figure 3). In addition to email, JAWF also receives telephone calls from users, which provides excellent quality control of websites as well. The passive feedback JAWF uses is obtained through internet log files. Most web server software packages, such as Apache, log connections made to web sites the server hosts. Each time an individual loads a web page into their browser the hosting server records a copious amount of information into a log file. Information recorded, for example, includes: date and time of visit, the web page being visited, the elapsed time of the visit, and much more.

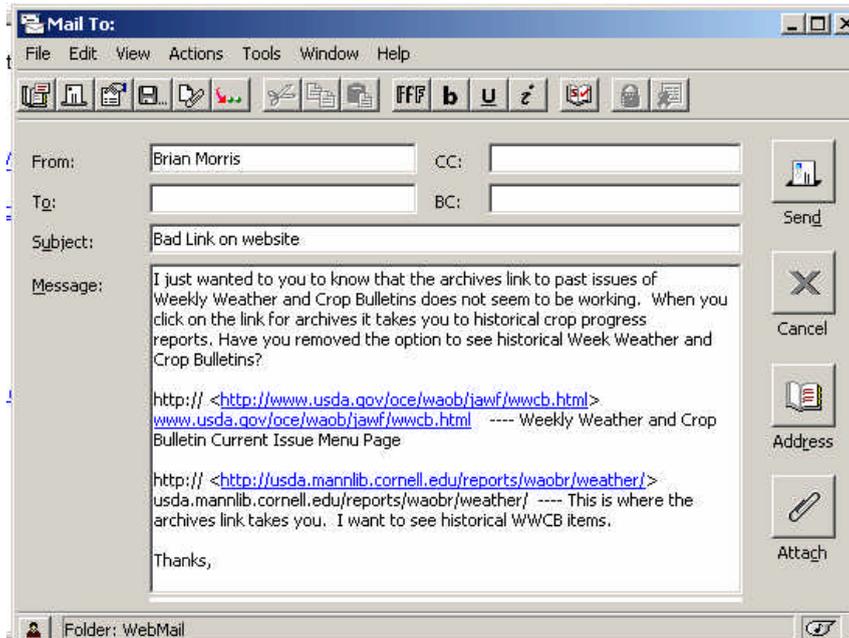


Figure 1. Quality control email.

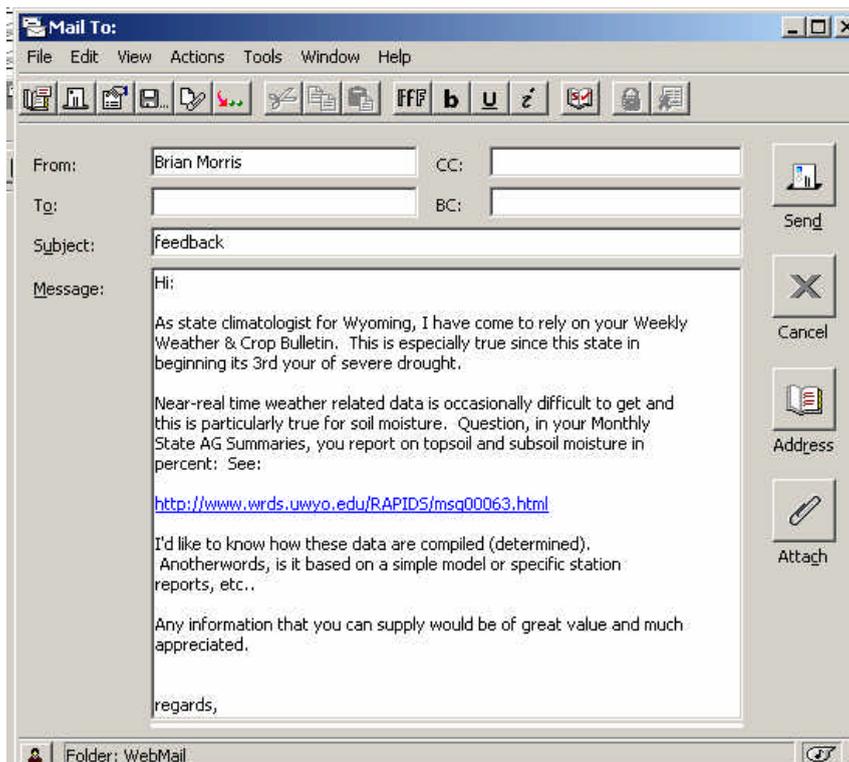


Figure 2. Product information request.

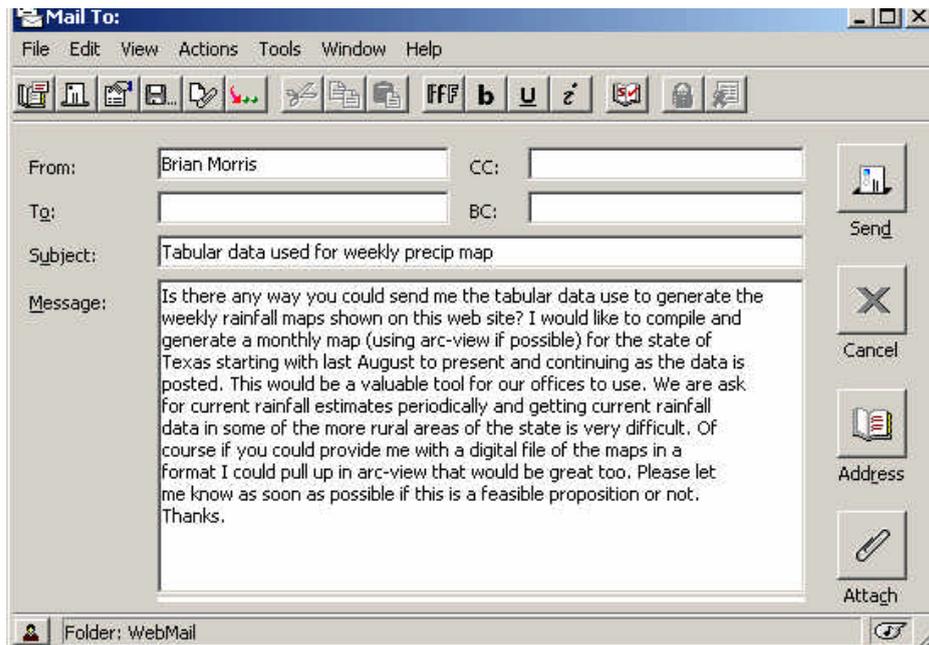


Figure 3. Agrometeorological data request.

Every day the log file is archived for analysis. Analysis is done using a commercial log analyzing software package called WebTrends. The software reads the log and produces statistical charts based on the information within.

The following figures represent activity levels for JAWF websites between 19 March 2002 and 08 April 2002. By examining activity levels by day of the week (Figure 4) and by hour of the day (Figure 5) the JAWF webmaster can see a peak in activity on Wednesdays at 10:00. This peak directly coincides with the release of the Weekly Weather and Crop Bulletin, one of JAWF's most prominent agrometeorological publications. The webmaster is now able to infer what product(s) the users are most interested in.

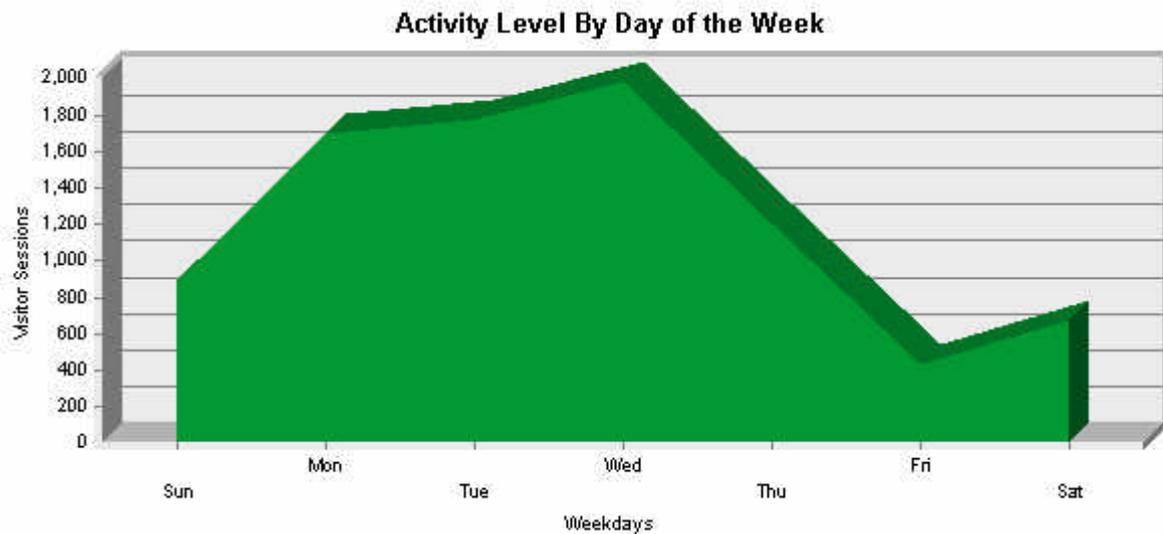


Figure 4. Daily activity level for JAWF website.

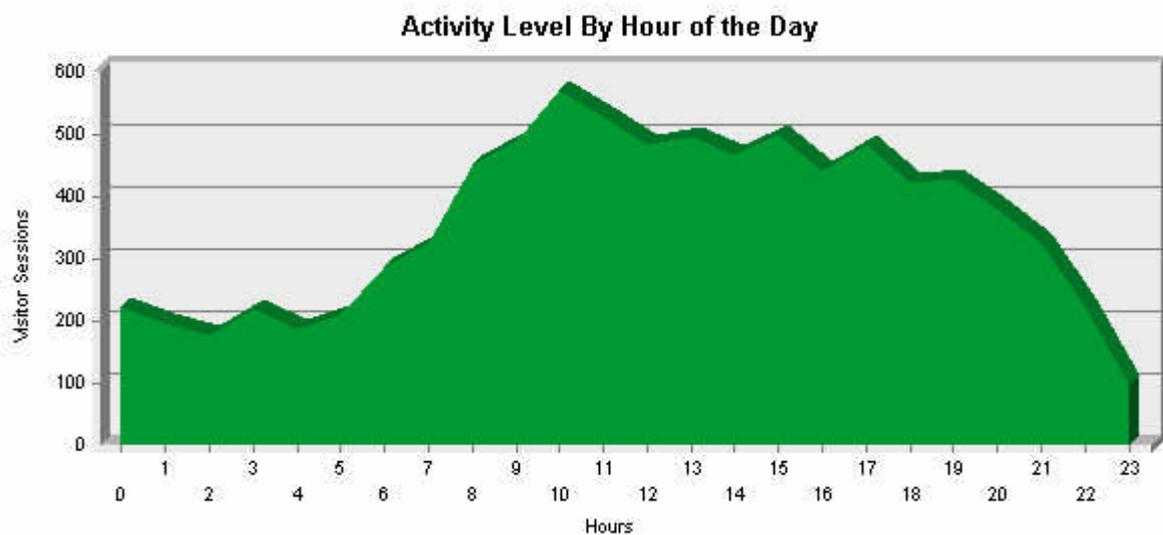


Figure 5. Hourly activity level for JAWF website.

Conclusion – JAWF Case Study

The use of user feedback can best be illustrated through the following case at JAWF. Information on the Weekly Weather and Crop Bulletin web site has for the most part been static, with changes occurring primarily in style via user feedback. Since the bulletin was produced for hardcopy distribution conversion of graphical and textual data was necessary for web posting. Specifically, graphics were converted to graphical image format (GIF) and textual data was stripped of word processor formatting and converted to ASCII DOS text. The process was tedious and time-consuming. Users began providing feedback on the information being displayed. The feedback was

positive, however, a consensus began to develop in the users' dissatisfaction with the displaying of the information. The users indicated that GIF graphics and textual data were difficult to read on the web page and difficult to print. When the portable document format (PDF) became available many of the problems could be solved. Bulletin pages could be directly exported into PDF without lengthy conversions. PDF also allowed users to more easily view and print the pages from the web. The drawbacks ascertained from further feedback, however, were increased file size and difficulty in exporting information from PDF to other formats. In conclusion, JAWF's experience regarding user feedback is that acting on all comments, requests, and opinions would be impossible. Rather, an analysis of the feedback should be done to determine commonalities and those commonalities are what influences product content and style.