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Organizational Administrative Information Management: Issues Concerning Distribution, Retention, and Availability of Work-Related Information

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INTRODUCTION

Electronic mail (email) has been seen as a valuable tool within organizations as a means of distributing information (Motiwalla, 1995; Zhao, Kumar and Stohr, 2001), particularly organizational administrative information (Merrier, Duff and Patterson, 1999). Organizational administrative information (OAI) includes policy statements and other administrative information, notices of upcoming events, job opportunity messages and other news items related to an organization. Because email makes it possible to disseminate information quickly and easily, it has become one of the most accepted and frequently used communication methods in today's office environment (Merrier, Duff and Patterson, 1999). Unfortunately, the features that have made email a popular means for distributing OAI have also created a problem for its users: information overload (Zhao, Kumar and Stohr, 2001). Emails come to members of an organization by the thousands and reside in individual mailboxes that may not have any coherent organizational scheme in which users prioritize, retain and can retrieve relevant OAI. Content management systems (CMS) have been developed to address problems of unstructured information management and are being increasingly implemented in the workplace.

The subject of the drawbacks of using email as an OAI distribution system has been discussed in trade and business publications as well as has the use of CMS. However, there has been little discussion, or academic research conducted, in the use of the posting capabilities of CMS to correct many of the perceived shortcomings of the email OAI distribution, retention and availability. The purpose of this study is to conduct assessments of: (1) an existing email-based system of OAI management and (2) a new OAI CMS implementation.

HYPOTHESES

Regarding hypotheses, we believe that: (1) OAI recipients (users) are not certain that they receive or know how to access all pertinent OAI, (2) OAI distributors are uncertain that all OAI recipients receive distributions or know how to access pertinent OAI, (3) OAI users are not certain that they retain and can retrieve all pertinent OAI and (4) OAI distributors are uncertain that all OAI recipients retain and can retrieve the OAI. We further hypothesize that the CMS will reduce these problems.

RESEARCH METHODS

An online, self-report anonymous survey instrument has been issued to employees of the Business School of a large university in the western United States to capture respondents' perceptions on the existing distribution, retention and availability of OAI within the Business School. A similar survey instrument will be issued after a reasonable "shake out" period following the implementation of a CMS. Completion of the survey questionnaire is voluntary and takes approximately twenty

(20) minutes to complete. The only personal information requested of subjects is the type of position held and level of use of OAI.

Modified versions of validated survey instruments are used. Part of the survey is drawn from the Chang and King (2005) instrument developed to measure information systems performance. Since the CMS that is the subject of this study is a subsystem, questionnaire items have been removed that are applicable only at a systems level. The remainder of the questionnaire is an adaptation of the Davis (Davis, Bagozzi and Warshaw, 1989) Technology Acceptance Model (TAM) (cf. Salisbury, Chin, Gopal Newsted, 2002 and Venkatesh, 2000). TAM provides measures for the ease of use and usefulness of the technology. All items in the survey use a Likert-style five point scale soliciting respondents' agreement with the question.

PRELIMINARY FINDINGS

There were thirty-eight respondents of approximately 150 employees of the Business School (see Table 1 for details). Five respondents abandoned the survey before completion while another four replied "N/A" to forty percent or more of the survey questions. Thus, twenty-nine respondents substantially completed the survey. Table 2 shows the level of usage of OAI by respondents. Approximately 88 percent of those responding indicate that they are at least moderate users of OAI.

Moving on to the responses themselves, the average standard deviation for all items is slightly greater than one unit (1.06). The minimum standard deviation is 0.84 while the maximum standard deviation is 1.27. The median of the standard deviations is just 0.0045 greater than the mean of the standard deviations. These values show that the items have reasonable variability in that it is close to one, but that there is reasonable agreement as the range in standard deviations is less than one. The closeness of the mean and median values indicates that the variation in the standard deviations is well distributed around the mean. This preliminary examination lends some credibility of the survey instrument for data analysis.

Table 1. Respondent characteristics

Position	Response Total	Percent
Faculty – Assistant Professor	3	9.1%
Faculty – Associate Professor	4	12.1%
Faculty – Professor	16	48.5%
Faculty – Full-time Lecturer	0	0.0%
Faculty – Part-time Lecturer	2	6.1%
Faculty – FERP Professor	1	3.0%
Staff	6	18.2%
Administrator	1	3.0%
Responses	33	
Skipped this item	5	

Table 2. Level of usage of OAI

Level of Usage	Response Total	Percent
Very Heavy User	2	6.1%
Heavy User	12	36.4%
Moderate User	15	45.5%
Light User	4	12.1%
I make no (or almost no) use of this information	0	0.0%
Responses	33	
Skipped this item	5	

The responses are separated into four broad categories. These categories are a post hoc decision on how the data may be represented. One category relates to the quality of the information itself. Survey items in this category seek to measure users' confidence in the quality of the OAI that is the focus of this study. The other three categories relate to the distribution, retention and availability of the information. Survey items in this category seek to measure users' belief that they receive important OAI and that important OAI that they have distributed is received by appropriate recipients and that it is not distributed to those who should not receive the OAI. The mean score in each category is shown in Table 3.

DISCUSSION

The first item for discussion is the survey instrument itself. In the case of the four respondents providing a substantial number of "N/A" item responses, those responses began at a point in the survey with the subject, "finishing out" the survey with the "N/A" responses. This is, therefore, seen as another means of abandoning the survey making for nine of thirty-eight respondents (24%) abandoned the survey before completion. The researchers also received casual comments from individuals who had taken the survey that they found the instrument to be difficult to complete. One member of the population even replied to the email message that, upon examination of the survey, refused to respond to the survey because he could not see how the instrument could possibly be relevant to the topic of interest. The most prevalent feedback received is that they found it difficult to determine which information we were asking about with this survey. The introduction to the survey described OAI as:

The focus of this study is information that is distributed among employees of the college, primarily through email. Examples of such information include, but are not limited to:

(a) distribution of policy statements, (b) notices of upcoming events, (c) meeting agendas/minutes, (d) discussions of issues, (e) student job opportunity messages, and (f) other news items related to [the Business School].

It was also made clear that the information that is the focus of this study is limited to information distributed within the Business School and does not include information distributed by the University or available in the campus-wide information system.

These observations indicate that the adaptation of the survey instrument may have been less than successful. Since the original survey is designed to measure the performance of information systems at the system level, the information in question is *all* information that one could access through the system. In the case within this study, the focus is on a subset of information. In this way, the researchers placed respondents in the position of having to differentiate School level from University level information, and to separate out different sources of School level information. Therefore, questions asked about "the

Table 3. Statistics by category

Category	Mean	St. Dev.
Quality of Information	2.96	0.41
Distribution	3.09	0.33
Retention	3.10	0.35
Availability	2.96	0.20

information" can seem vague and uncertain. Clearly, the researchers need to consider revising the survey instrument for measures of subsystem level performance and specify the particular information of interest for a particular survey question.

Validating the survey items has not been accomplished as of this writing. Contributing to this is the concern with the structure of the survey instrument itself and the possibility that it may not be appropriate for subsystem performance measures. It is not possible at this time to perform factor analysis on the items to validate the instrument as there are not enough responses to satisfy the statistical examination.

The preliminary statistics presented in Table 3 indicate that respondents, in general are somewhat confident in the means of distribution, retention and availability of OAI and the quality of that information. These measures represent what may be considered "middle-of-the-road" values. This impression is also reflected in the relatively small variation in mean values. It may be that the uncertainty of some of the respondents expressed towards the survey instrument resulted in the values and may not reflect their true impression of the OAI that is the focus of the study. What is also yet to be known is if these values improve with the implementation of the CMS.

SIGNIFICANCE OF PROJECT

Through articles in trade and business publications, the information systems professional community has repeatedly expressed concern about problems encountered with distribution, retention, and availability of organizational administrative information via email. However, little rigorous academic research has been conducted to support (or refute) the anecdotal evidence. Affirmative results from this study will aid the professional community in justifying the development and implementation of CMS and other information management systems within organizations. The academic disciplines of information systems and of management will benefit from greater knowledge of the problems associated with OAI management and the effectiveness of CMS and similar technologies in reducing those problems.

STATUS OF THE RESEARCH

The researchers will undertake an analysis of the survey instrument and redesign and re-issue the survey if deemed necessary. The second survey will be issued following the implementation of the CMS and a reasonable "shake out" period. All of this will occur before the conclusion of the Spring 2006 term so a full report will be presented at the conference.

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