

ZUMA-Arbeitsbericht Nr. 97/08

**Getting A Foot In The Electronic Door:
Understanding Why People Read
or Delete Electronic Mail**

Tracy L. Tuten

Juli 1997

ZUMA
Quadrat B 2,1
Postfach 12 21 55
D-68072 Mannheim

Telefon: (0621) 12 46 - 0
Telefax: (0621) 12 46 - 100

GETTING A FOOT IN THE ELECTRONIC DOOR:

UNDERSTANDING WHY PEOPLE READ OR DELETE ELECTRONIC MAIL

Tracy L. Tuten

Zentrum für Umfragen, Methoden und Analysen, Mannheim, Germany

Randolph-Macon College, Ashland, Virginia

July, 1997

The support of the Zentrum für Umfragen, Methoden und Analysen (ZUMA), Mannheim, Germany, during the development and completion of this research and manuscript is gratefully acknowledged.

Getting a foot in the electronic door:
Understanding why people read or delete electronic mail

Abstract

For researchers, a key issue in developing electronic mail as a survey method is to understand what factors are at play as a potential respondent chooses to open or delete a mail message. This research investigated the process by which individuals make decisions about opening and reading versus deleting electronic mail and also assessed attitudes towards electronic mail surveys. The sample received an electronic mail message followed by a telephone interview. Results indicated that individuals delete mail when the subject line does not interest them or when they do not recognize the name of the individual sending the email. Those interviewed reacted favorably to electronic mail surveys for scientific research despite issues of anonymity. However, respondents overwhelmingly described a dislike for commercially based electronic mail surveys.

Getting a foot in the electronic door:

Understanding why people read or delete electronic mail

Surveys delivered via electronic mail are becoming increasingly popular as companies and researchers realize the economic reasons for utilizing such methods. Electronic mail surveys offer many benefits. Electronic mail is 1) easy to send; 2) easy to reply; 3) low in cost compared to mail or phone or in person¹; 4) fast - responses can begin immediately; and 5) it eliminates time zone hassles for individuals in different geographic areas (Parker, 1992; Mehta and Sivada, 1995; Batinic, 1997).

While the benefits are attractive, electronic mail surveys may not elicit the same level of response rates as other survey methods. Parker (1992: 54) summarized this problem by saying: 'email subscribers may become callused pressers of the delete key, who pitch your questionnaire, unread, into the electronic world's equivalent of the circular file.' Thus, for researchers, a key issue in developing electronic mail as a survey method is to understand what factors are at play as a potential respondent chooses to open or delete a mail message. In other words, if a potential respondent does not even open the mail, such traditional factors as incentives (Church, 1993; James and Bolstein, 1992), appeals (Houston and Nevin, 1977), and official sponsorship (Fox, Crask, and Kim, 1988; Dillman, 1978: 16) are irrelevant. This research investigates the process by which individuals make decisions about opening and reading versus deleting electronic mail and also assesses attitudes towards electronic mail surveys. A discussion of relevant literature, methods, and preliminary results follows.

Problem Statement

Unfortunately, visual cues like stationery quality and color and style of font are not (yet?) available in the electronic mailbox. An electronic mail message as seen in one's 'mailbox' has no envelope. There is no stationery to indicate the contents of the letter, no control over the font used, no opportunity to show a personalized salutation at this point in the process. In fact, the amount of information available to the potential respondent is quite limited: typically only a 'From' line and a 'Subject' line are

¹ While electronic mail surveys are less expensive for the researcher, their organization incurs expenses associated with the development of the system, system maintenance, and the amount of usage.

available to provide information to the reader. Thus, how do potential respondents go about deciding which messages to open and which to delete immediately?

Importance of Study

The purpose of such a study is to inform researchers using electronic mail as a data collection method of potential factors that may influence whether a potential respondent will even open and read an electronic request to participate in a survey. Electronic data collection offers many advantages to the researcher including cost savings (no need for stamps, stationery, long-distance telephone calls), speed of delivery, and ease of use (Parker, 1992; Mehta and Sivada, 1995). Understanding how to encourage a potential respondent to read a message is a critical issue in developing acceptable response rates using electronic surveys.

Related Literature

Why do individuals open their mail, electronic or otherwise? Why do people answer the phone? Thus far, response rates of electronic mail surveys have been acceptable compared to response rates for mail and telephone surveys (Parker, 1992; Anderson and Gansneder, 1995). Yet, like the effects of junk mail on traditional response rates, and telemarketers on telephone survey response rates, electronic junk mail and 'spammed' messages threaten the viability of electronic mail as a survey method. To better understand ways of 'getting our foot in the door,' relevant literature with regard to mail and phone surveys as well as direct mail marketing is briefly reviewed.

Traditional mail

Research on mail surveys (e.g., Dillman, 1978; DeLeeuw and Hox, 1988) has emphasized the importance of visual factors such as personalization (e.g., using the respondent's name on the envelope and cover letter), and the color and quality of stationery in encouraging potential respondents to open mail. For example, Dillman, Singer, Clark, and Treat, (1996) recently found that a notice on the envelope emphasizing a legal mandate to answer a census survey increased response significantly. Because official sponsorship increases response rates, one might also infer that the identification of an official sponsorship on the envelope may increase the chance of a mail piece being opened.

Direct Mail findings

James and Hairong (1993) investigated why consumers open direct mail. They surveyed consumers and direct marketing practitioners to assess the direct mail envelope characteristics that are perceived as critical in getting an envelope opened. Handwritten envelopes and envelopes that looked like bills were typically opened. They concluded that personalization (handwritten envelope offers a cue of personally knowing the sender) and importance (not opening a bill had important negative consequences) were critical factors. Others have also encouraged the use of high quality stationery as a way of differentiating mail from 'junk' mail.

Telephone Surveys

Frey (1976) wrote that telephone usage is guided by several norms of behavior. The ringing phone creates tension to the point of feeling a compulsion to answer the ring. The ring calls for completion, closure, and response. Similar to answering a doorbell or knock, Ball (1968) suggested that we have been conditioned to answer the telephone. For a telephone researcher, this once meant that if a telephone rings in the home of a potential respondent, it would probably be answered. However, this compulsion to answer also guaranteed success for telephone solicitors. Because this compulsion attracted a growing number of telephone solicitations, ultimately the compulsion to answer the phone may have also contributed to the decrease in the response rates for telephone surveys. Tuckel and O'Neill (1995) noted that over the last 15 years, response rates to phone surveys have decreased dramatically.

Thus, while mailed pieces have emphasized *visual* cues (e.g., personalization, sponsorship identified, paper color) to encourage potential respondents to open the mail, and telephones are answered because of the *auditory* cue, electronic mail, at least at this time, lends itself to neither.

Factors affecting Electronic mail reading

While no known literature exists to explain specifically the decision processes behind reading electronic mail, some clues do exist about what factors may influence whether an individual chooses to read rather than delete an electronic message. Some potential factors include recognition of the name in the 'From' line, personal interest in

the 'subject' line, amount of mail received on a particular day, and previous experiences opening mail and with the use of electronic mail in general.

Recognition of Name in 'From' line

While the effect of name recognition in electronic mail communication has yet to be investigated, both the literature on brand names and results reported by the GVU's web survey (<http://www.cc.gatech.edu/gvu>) infer a relationship. Forty-seven percent of respondents to GVU's web survey indicated that they immediately delete 'spammed' messages. A spammed message means that a message has been sent to a mass audience. In other words, the message was not sent directly to and for that particular respondent and was, thus, immediately deleted. A spammed message can be identified by its lack of personalization (Batinic, 1997).

Further, a large base of literature on the value of branding (e.g., Lamb, Hair, and McDaniel, 1997) suggests that individuals may feel greater trust, reliability, and be more likely to purchase products that carry a brand name they are familiar with. In addition, Maddox, Mehta and Daubek (1997) found that web users feel a brand name helps them to remember the URL of a website they wish to visit. Extending this phenomenon to electronic communication, a similar relationship may exist with regard to opening one's mail: recognizing a name, in lieu of other information, may increase the likelihood of opening electronic mail.

Content of 'Subject' line

Personal interest in the topic identified in the 'subject' line. Past studies on response rates to mail and telephone surveys have reported that topic interest significantly increases response rate (Martin, 1994; Heberlein and Baumgartner, 1978). Similarly, individuals seek out websites because of personal interest in a topic or product (Maddox, et al., 1997). Individuals are more likely to respond to surveys investigating a topic they are interested in and have definitive opinions about, and less likely to respond to surveys investigating topics of no interest to them. A similar effect may be present when reading a 'subject' line of an electronic mail message. Individuals may choose whether to open a message based upon their interest in the reported subject.

Use of appeal in the 'subject' line. Related to the issue of cover letter content is the question of possible appeals to use. In traditional survey methods, it is common to

use one or more ‘appeals.’ For instance, a researcher may use an egoistic appeal, a social utility appeal, a help-the-sponsor appeal, or a combined appeal (e.g., Houston and Nevin, 1977). Similarly, a brief appeal in the subject line may affect an individual’s choice to open an electronic mail message.

Amount of information provided in the ‘subject’ line. Another possible variable is the amount of information allowable in the subject line of a message. Respondents to telephone or mail surveys gather information about the topic from the interviewer or the cover letter. At this stage in the decision process of a potential electronic mail respondent, the detailed information found in a cover letter is not available in the subject line. Thus, how much information is necessary to engage the interest of the respondent?

Combined Attributions and Purpose of Message

In addition, individuals may make a combined attribution based on the subject line and the reported name in the ‘From’ column. One may not recognize a name, but recognize the subject line as important, and vice versa. One’s perceptions as to the purpose of the message may also be a variable. For instance, does an individual try to sort personal mail from business mail, and individual messages from messages from lists prior to opening? What indicators are useful in determining these categories of purpose?

Amount of mail received on a given day

Direct mail studies have suggested a relationship between response to direct mail campaigns and the amount of mail a target customer receives on the day the direct mail piece arrives (James and Hairong, 1993). A similar relationship may exist with regard to electronic mail messages. On heavy days, the likelihood that an individual will scan the box for recognizable names and subjects and delete others may increase. While it is unlikely that heavy or light electronic mail days can be predicted, it may be worthwhile to examine the effects of the day of the week on opening mail. A related variable is also the type of electronic mail user. In other words, there are variations in the ‘frequency of use’ of electronic mail users. Whether someone can be categorized as a heavy, medium, or light user (and, consequently, receiver) of electronic mail may also affect the likelihood of one’s opening particular electronic mail messages.

Methods

Overview

This study proposed a two tier exploratory approach to learning about the decision processes of individuals in opening and reading electronic mail messages. First, each member of the sample received an electronic mail message describing the nature of the study, informing the participant that the researcher would like to conduct an interview to investigate the process, and requesting that the participant reply to the message with a convenient time for a telephone interview. Appendix A contains a sample of the email message. Second, telephone interviews were conducted with all willing and reachable participants. As designed, the interview format varied slightly for participants that responded to the electronic mail message from those that did not. Additionally, the questions contained both open-ended questions (due to the exploratory nature of the study) as well as some categorical questions. The interview questions are contained in Appendix B.

Variables

While the interviews gathered responses to open-ended questions on the thoughts, feelings, and perceptions of the participants, several categorical questions were also asked. As described above, the primary dependent variable was whether the participant opened and responded to the electronic mail message. This dependent variable was classified simply into response or non-response.

Exploratory questions revolved around what variables might influence whether an individual opens and reads an electronic mail message. While the questions are open-ended, we expected the responses to include the following categories: 1) name recognition in 'from' line; 2) interest in topic identified in 'subject' line; 3) combined attributions made from both name and subject information; 4) amount of information in 'subject' line; and 5) the amount of mail received on a given day. Other possible independent variables included 1) heavy, medium, or light user (average number of messages received in a day); and 2) frequency of use of electronic mail (daily, several times a week, once a week, less than once a week).

Sample

The pre-test sample was drawn from universities in Germany with sociology departments listed in the University of Köln's website (<http://www.uni-koeln.de>)

wiso.fak/soziologiesem/sej-inst/inst-ort.htm) of Institutions for Sociology. This site lists all sociology departments in German universities. Some of the departments listed have direct links to their web sites. Of those that have direct links, some schools also list their faculty names, telephone numbers, and electronic mail addresses. Thus, the population available is all faculty members in sociology departments of German universities whose telephone numbers and electronic mail addresses were available on their website. The sample was drawn by numbering each listing within a university, and then choosing two listings from each school using simple random sampling for a total sample of 20 individuals. Thus, the sample is a disproportionate stratified sample.

While this method potentially overrepresents schools with fewer faculty using electronic mail and underrepresents schools with more faculty using electronic mail, this method accomplishes the key objective of obtaining ideas and insights for use in a broader study. Thus, it is more important to have representation across several schools than to let the sample be dominated by any one school.

Data Collection Procedures

Each individual in the sample was first contacted by electronic mail with a message explaining the purpose of the study, requesting a telephone interview, and requesting the respondent to send an electronic reply noting an interview time (see Appendix A). Each respondent was then interviewed by telephone following the Response form located in Appendix B. The researcher attempted also to contact those individuals that did not respond to the electronic mail message. Four of the five non-responders were out of town for an extended period and could not be reached. One was reached by telephone upon his return and interviewed using the form for Non-responders located in Appendix B. The final non-responder's telephone number was verified; however, the researcher was unable to reach him via telephone.

Results

Description of Respondents

Of the twenty individuals that were sent electronic mail messages, a total of 15 responded. However, one response was a refusal and another was a message that the person was out of town and could not be interviewed. Of the thirteen remaining responders, two proved impossible to reach for a telephone interview. Thus, a total of

eleven who responded to the electronic mail message were interviewed. Eight males and three females comprised this group. Their ages ranged from 31 to 52, with an average age of 44. The average number of years using electronic mail was 4, with a range from 2 to 9 years. Five individuals held the position of Wissenschaftlichen mitarbeiter. Four individuals were C4 professors, and two individuals were C2 - assistant professors. The schools represented included universities from Chemnitz, Darmstadt, Rostock, Köln, Mannheim, Berlin, Eichstätt, and Heidelberg. Nine interviews were conducted in English, and two were conducted in German. Of those interviewed in English, everyone stated that they were comfortable with the language.

Five individuals did not respond to the electronic mail message. Of those, four were found to be out of town for an extended period; and one was interviewed upon his return using the form for non-responders. The one individual interviewed in this group was a male from Wuppertal. He held the position of C4 and had only used electronic mail for one year.

Frequency, Routines, and Distributions of Electronic Mail

Of those who responded to the email message, each reported checking their email either once daily or several times per day. In addition, everyone interviewed stated that they check their email as soon as they get into the office as part of their morning routine. However, only one person also checked their email from home. Only four individuals used an automatic distribution system. Further, everyone interviewed checked their own electronic mail messages (as opposed to having email screened by a secretary or assistant). However, one reply indicating that the person was out of town came from a secretary who had checked his electronic mail during his absence. The one individual interviewed from the non-response group checked email only twice per week.

Reading and Deleting of Messages

Only three individuals stated that they read every message they receive. Of those individuals that stated that they do delete messages at times without reading them (9), the following reasons were given: the subject was not interesting (7), the message appeared to be an advertisement (6), the message appeared to be sent to a mass mailing list (2), the message appeared to be 'rubbish' (1), the message was too long (1), and the message was not from a colleague (2). Note: individuals were not limited in the

number of items they could name. Everyone interviewed described looking to the subject line to see if the topic was interesting, and then to the name when deciding whether or not to read an email message.

Table 1. Deleting an Email Message

Reason Given for Deleting an Email Message	Number of times given
Did not recognize name in the 'from' line	9
Was not interested in the subject identified	7
Appeared to be an advertisement	6
Appeared to be a mass-mailing	2
Was too long	1
Appeared to be 'rubbish'	1

Quantity of Electronic Mail and Electronic Overload

The amount of electronic mail received on average in a day varied from 0 messages to 30, though eight individuals reported an average number of emails between 5 and 10 per day. Only one person indicated receiving more than 10 messages a day. Similarly, the quantity of electronic mail messages perceived as 'alot' of email ranged from 4 to 50 email messages: three stated greater than 10, three stated greater than 20, one each noted greater than 3, 4, 30 and 50, while two stated that they did not know. While six individuals noted that their routine does not change on days that they receive alot of email, three noted that they are 'quicker to delete messages,' and two noted that they sometimes come back at a later time.

Attitudes towards Electronic Mail surveys

Overall, reactions to the use of email and the internet were positive (10 out of 12 interviewed). Though, several individuals expressed a lack of confidence in using such technology when so few people have access to email and internet. When asked which medium they preferred for receiving and answering surveys, electronic mail was named seven times, traditional mail was chosen six times, the telephone was named twice, as was the World Wide Web, and face to face was named once. One also said that it depends on a number of variables including length, complexity, and topic. Individuals were not limited in the number of methods they could choose.

Table 2. Preferred Survey Medium

Preferred Medium for Receiving and Replying to Surveys	Number of times given
Electronic mail	7
Mail	6
Telephone	2
World Wide Web	2
Face to Face	1

There appears to be a distinct difference in attitudes towards electronic surveys based upon the purpose of the survey. Almost everyone noted that the lack of anonymity associated with electronic surveys is not a problem when the information collected is for scientific research purposes and is not personal (e.g., income) or ‘harmful’ in some way. Only one person stated that they were reluctant to disclose any information via electronic mail. It is interesting that this comment was made by the one ‘non-responder’ interviewed. Five individuals noted that anonymity was a primary concern when the research was for commercial purposes.

Only two individuals stated unequivocally that they were likely to answer a survey sent to their electronic mail address. Others identified several reasons moderating whether they would respond to an email survey. Topic interest (3), whether research is scientific or commercial (4), sponsorship (1), and length of survey (1) and time available (1) were factors named as moderators of an individual’s likelihood of response. Those mentioning whether research is scientific or commercial clearly stated that they would not participate in commercial research.

Table 3. Moderators of the Decision to Participate

Moderators of the decision to participate in a survey	Number of times given
If the research is for scientific purposes and not commercial purposes	4
If I was interested in the topic	3
If the survey wasn’t too long	1
If I recognized the sponsor	1
If I had the time available	1

When asked why the individuals participated in this study, answers were similar. Interest in the topic was identified four times, helping another researcher was noted five times, and recognition of ZUMA as the sponsor was mentioned twice. In addition the following comments were made: 'it was the only message I got that day', 'it was easy to respond to it', and 'it was the first message like that I had ever gotten.' These statements lend credence to the idea that there may be differences between heavy and light users of email. The one individual that did not respond to the email message but that was available for a telephone interview stated that he had not attended to his email for an extended period of time due to an out of town trip.

Discussion

Results of the interviews revolved around several key themes for discussion. These themes are interest in subject, name recognition, commercial versus scientific research purposes, the use of electronic mail for communication and electronic mail as a survey tool.

Frequency, Routines, and Distribution of Email

As noted in the Results section, the individuals that responded to the email message checked their email at least once per day. These individuals reported having a morning routine of checking their email and of replying upon receipt. A key point is that those interviewed have recognized electronic mail as a mainstream method of communication, as evidenced by the daily use of the method. Related to the frequency of checking email is the response rate to the electronic mail message sent in this study. Seventy-five percent of the sample responded to the electronic mail message. Of those that did not respond, four were found to be out of town (the one interviewed was reached upon his return). Thus, it is reasonable to conclude that these individuals would have responded had they been available.

Reading and Deleting of Messages

Clearly, having an interest in the subject was the primary information used in deciding whether to read or delete an electronic mail message. On one hand, identification of an interesting topic can at least get a survey opened by a potential respondent. Yet, interest in the subject also represents a potential bias for researchers using electronic mail for survey research. While identifying a topic of interest in the

subject line of a email message may increase response to electronically mailed surveys, it also increases the potential for non-response biases (Martin, 1994). Specifically, a bias is created when non-respondents' would be answers differ from the responses of those who do participate in the survey. If responders are more interested than non-responders, then a response bias may exist (Martin, 1994).

While the number of non-responders in this study is too small to draw valid conclusions, that individual's answers did differ in some ways from the others. Specifically, the 'non-responder' did not check his email as frequently, had used email for less time than the others, and felt less comfortable with email.

Quantity of Electronic Mail and Electronic Overload

Those interviewed reported mixed results with regard to how their routine changes on days that they receive alot of mail. Some did state that they are 'quicker to delete' electronic mail that does not interest them on days that they have more mail. However, others stated that their routine remains the same. It is important to note that all of the individuals interviewed could be classified as light users of email. That is, most received between 5 and 10 emails per day. Thus, because none of those interviewed are heavy users of email, we are limited in drawing conclusions about how heavy mail days might affect the reading and deleting of email. In addition, as electronic junk mail continues to increase, the potential for respondents to be 'quicker to delete' emails also increases.

Attitudes towards Electronic Mail Surveys

Overall, responses were positive regarding attitude towards electronic mail as a data collection method. Despite the well-documented dislike for electronic surveys, what is termed a faux pas by 'netiquette' (e.g., Batinic, 1997), several indicated a preference for receiving and responding to surveys via electronic mail over other survey mediums. However, the positive attitude was tempered with a few guidelines. First, the respondents noted that they did not want to receive surveys for commercial use via electronic mail. Second, they did not want personal information requested via this format.

These guidelines also seemed to relate to attitudes towards the desire for anonymity. Anonymity was most important when the information being collected was

of a personal nature or was for commercial use. The interviews indicated that anonymity is not an issue when collecting data for scientific purposes. This conclusion is critical to researchers who can benefit from the many time and cost saving features of electronic surveys.

The responses regarding anonymity also lead to other research questions. Possibly the 'need for anonymity' with regard to electronic communication may fall into *levels* of privacy. For example, some individuals may feel that electronic communication is not anonymous and will refuse to participate completely (the one 'non-responder' interviewed viewed electronic communication in this way). Others may decide that they will not participate in commercial research but will for scientific research. Finally, others may feel that anonymity and privacy are not important issues and will participate in any form of electronic communication without concern.

Responses to the question 'why did you respond to this electronic mail message?' offer new questions for future research. The results indicate that official sponsorship noted in the 'From' line, and different appeals identified in the subject line may influence whether an individual responds to an electronic mail message.

Conclusions

Several conclusions can be made based upon the results reported above. First, individuals are more likely to open messages from individuals whose names they recognize and/or emails about topics they are interested in. Second, individuals are more likely to delete messages that are 'commercial' in nature or that are sent to a mass audience.

Individuals do not appear to be hesitant about answering electronic surveys despite the lack of anonymity as long as the research is for scientific purposes rather than commercial purposes, and as long as the research does not request personal information (e.g., income).

Importantly, individuals seem to like receiving and answering electronic mail surveys. Many of those interviewed preferred the electronic mail survey to other mediums, stating that electronic mail was fast and easy. However, it was noted that short, simple surveys were most appropriate for electronic distribution.

Limitations of Study

The study is limited in several ways. First, the results of this study are based on only a few interviews. The sample was small and may not be representative of the population of email users. Second, electronic mail users in Germany and/or in University settings may differ significantly from other email users. Also, the sample interviewed seemed to be 'light' users of email, most receiving no more than 10 emails per day. The attitudes may differ among 'heavier' users of email. Further, the response to the initial email message requesting an interview was high. Many noted that they responded to 'help another researcher.' Thus, non-academics may respond differently to an email survey. Finally, the research sought to compare the attitudes of non-responders to responders. Yet, only one 'non-responder' was available for an interview.

Suggestions for Future Research

Variables found to be important in this exploratory study can be further investigated by using a factorial design in a future study. Specifically, this study should investigate for differences between American and German users of electronic mail, between heavy, medium, and light users of email, and compare academic users of email to other professions. Subject lines containing 1) topic, 2) egoistic appeal, 3) social utility appeal, or 4) help the researcher appeal, and a 'From' line with either an official scientific sponsor identified versus a commercial sponsor can provide further information on attitudes towards commercial research as well as on the effect of varying information provided in the 'subject' line.

While response or non-response can continue to serve as the primary dependent variable, the electronic mail message should also contain a questionnaire to further investigate the attitudes towards anonymity discussed above. A future study investigating these variables should shed additional light on the use of electronic mail for survey distribution.

References

- Anderson, S. and Gansneder, B. (1995). Using electronic mail surveys and computer-monitored data for studying computer-mediated communication systems. Social Science Computer Review, 13 (1), 33-46.
- Ball, D. (1968). Toward a sociology of telephones and telephoners, In Marcello Truzzi (ed.) Sociology and Everyday Life, Englewood Cliffs, NJ: Prentice-Hall, 59-75.
- Batinic, B. (1997). Fragebogenuntersuchungen im Internet. In Batinic, B. (ed.), Internet für Psychologen, Goettingen: Hogrefe-Verlag.
- Church, A. (1993). Estimating the effect of incentives on mail survey response rates: A meta-analysis. Public Opinion Quarterly, 57: 62-79.
- DeLeeuw, E. and Hox, J. (1988). The effects of response-stimulating factors on response rates and data quality in mail surveys: A test of Dillman's total design method. Journal of Official Statistics, 4 (3): 241-249.
- Dillman, D. (1978). Mail and Telephone Surveys: The Total Design Method. New York: Wiley and Sons.
- Dillman, D., Singer, E., Clark, J., and Treat, J. (1996). Effects of benefits appeals, mandatory appeals, and variations in statements of confidentiality on completion rates for census questionnaires. Public Opinion Quarterly, 60 (3): 376-389.
- Fox, R.; Crask, M., and Kim, J. (1988). Mail survey response rate: A meta-analysis of selected techniques for inducing response. Public Opinion Quarterly, 52: 467-491.
- Frey, J. (1976). Survey Research by Telephone. Sage Publications.
- Heberlein, T. and Baumgartner, R. (1978). Factors affecting response rates to mailed questionnaires: A quantitative analysis of the published literature. American Sociological Review, 43: 447-462.
- Houston, M. and Nevin, J. (1977). The effects of source and appeal on mail survey response patterns. Journal of Marketing Research, 14 (August): 374-378.
- James, J. and Bolstein, R. (1992). Large monetary incentives and their effect on mail survey response rates. Public Opinion Quarterly, 56: 442-453.
- James, L. and Hairong, L. (1993). Why do consumers open direct mail? Contrasting perspectives. Journal of Direct Marketing, 7 (2), Spring p. 34-40.

- Lamb, C., Hair, J. and McDaniel, M. (1997). Marketing Management. Southwestern-Publishing.
- Maddox, L., Mehta, D., and Daubek, H. (1997). The role and effect of Web addresses in advertising. Journal of Advertising Research, 37 (2), 47-59.
- Martin, C. (1994). The impact of topic interest on mail survey response behaviour. The Journal of the Market Research Society, 36 (4): 327-337.
- Mehta, R. and Sivada, E. (1995). Comparing response rates and response content in mail versus electronic mail surveys. Journal of the Market Research Society, 37 (4): 429-439.
- Parker, L. (1992). Collecting Data the Email Way. Training and Development, (July), 52-54.
- Tuckel, P. and O'Neill, H. (1995). Call waiting. Marketing Research: A Magazine of Management and Applications, 7 (2) Spring, 6-13.

Appendix A - Sample electronic mail message

Dear -----,

My name is Dr. Tracy Tuten and I am a visiting researcher with ZUMA - the Center for Survey Research and Methodology. We are conducting a study of how university professors approach reading their electronic mail messages and their attitudes towards the use of electronic mail in survey research. Will you take a moment of your time to read this message?

Your name, electronic mail address, and telephone number were selected from the public list of professors in sociology found on the web site for your university. I would like to contact you by telephone sometime between June 11 - 12 and June 16 - 19 to ask you a few questions about how you use your electronic mail. The interview should only last about 10 minutes. Your participation is voluntary and all your answers will be kept completely confidential. Results of the study will be used to research the use of electronic mail for survey distributions.

Will you reply by completing the form below and returning it to me at the following email address: tuten@zuma-mannheim.de? Should you have a preference in the time and date of the interview, the form provides space for you to note this. In addition, please note any corrections to your telephone number. Your participation will be greatly appreciated. Thank you for your time.

Best Regards,

Tracy L. Tuten, Ph.D.

Visiting Researcher at ZUMA - Zentrum für Umfragen, Methoden und Analysen

Postfach 12 21 55

D-68072 Mannheim

(0621) 1246-144 Office

tuten@zuma-mannheim.de Email

Name: _____ Phone number:

I would prefer a call on _____ at _____.

Should I arrange for a German interviewer or may I speak to you personally in English?

German Interviewer _____ Speak with you in English _____

Appendix B - Response formTime request:

Name: _____ Phone: _____

Affiliation: _____

Gender: M F

Hello, is this _____?

This is Tracy Tuten calling from ZUMA - the Center for Survey Research and Methodology in Mannheim. I received your reply to my letter explaining the study and I appreciate your willingness to answer a few questions. Is now a good time or should I call you again at another time? As I mentioned in the electronic mail message, we are conducting a survey of university professors about their use of electronic mail and their attitudes towards electronic mail in survey research. The questions will take only a few minutes to answer, and your responses will be kept completely confidential. If there are any questions that you don't feel you can answer, please let me know and we'll move on the next one. Okay?

1. How frequently do you check your email messages?
2. Do you have any type of routine you follow in checking your electronic mail?
 - a) For instance, do you usually check it at the same time of day?
3. Do you have an automatic distribution set up such that your email messages are sorted into folders for you?
4. Does someone else receive your email and sort it for you prior to your reading it?
 - If so, what guidelines do they use in sorting the messages?
5. How do you usually go about reading your email?
 - a) For example, do you usually read every message?
 - b) If no, how do you decide which messages to read first?
6. When might you decide to delete a message without reading it?
7. How much email do you consider to be alot of email?
8. Do you follow the same routine you described before on days that you receive alot of mail?

9. On average, how many email messages do you receive in a day?

Because electronic mail and the internet are becoming an increasingly accepted form of communication, researchers are considering electronic mail as a way of gathering data. I would like to ask you a few questions on your attitudes towards the use of electronic mail for survey research.

10. What is your reaction to the use of electronic mail and the Internet for distributing surveys?
11. If you were approached to answer a survey, through which medium would you prefer to receive the questionnaire?
- a) Would not want to receive
 - b) Email
 - c) Web survey
 - d) Traditional mail survey
 - e) Telephone survey
 - f) Face to face interview
 - g) Other
12. Would you like to answer the questions using that same medium?
13. When using electronic mail to respond to surveys, the computer used to answer the questions can be identified in the reply message. This means that while a researcher can assure you of confidentiality, the researcher cannot guarantee you anonymity. To what degree is anonymity important to you in deciding whether to respond to a survey?
14. How likely are you to answer a survey sent to your electronic mail address?
15. What conditions might cause you to refrain from answering a survey sent to your electronic mail address?
16. Why did you reply (or not reply) to the message I sent you?
17. In what year were you born?
18. What is your position in the University?
- a) C2 - Asst Prof.
 - b) C3

- c) C4
 - d) Wissenschaftliche mitarbeiter
 - e) Other
19. How long have you been using electronic mail?
20. Did you feel comfortable speaking with me in English?

Non-response form²

Name: _____ Phone: _____

Affiliation: _____

Gender: M F

Hello, is this _____?

This is Tracy Tuten calling from ZUMA - the Center for Survey Research and Methodology in Mannheim. We are conducting a survey of university professors about their use of electronic mail and their attitudes towards electronic mail in survey research.

A few days ago I sent an electronic mail message describing the survey to you but we didn't receive your reply. I am phoning to have a short interview with you. Is now a good time?

Your name, electronic mail address, and telephone number were selected from the public list of professors in sociology found on the web site for your university. I would like to ask you a few questions about your use of electronic mail. The questions will take only a few minutes to answer, and your responses will be kept completely confidential. If there are any questions that you don't feel you can answer, please let me know and we'll move on the next one. Okay?

²The questions contained in the non-response form were identical to those in the response form. Only the introduction varied.