

Marketing Email UX — User Research Methodology

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About This Report

This report includes research details about each of six studies conducted to create email newsletter usability guidelines for the report [Marketing Email and Newsletter Design to Increase Conversion and Loyalty](#).

For each study, you will find detailed information about the recruiting techniques used and in-depth descriptions about the participants that took part. In addition, each study summary includes a thorough description of how the study was designed, set up and conducted; the sites and newsletters tested; activities completed and any follow-up questions asked. This detail, along with relevant lessons learned and tips and tricks for using each methodology, are included so researchers can learn from our study methodologies and adapt these approaches for their own research needs.

Overview of the Usability Studies

FIRST STUDY

The first study tested 10 sites and email newsletters with 15 participants. We derived additional insights from newsletters our test users already received, though we didn't study them systematically.

We chose the 10 sites and newsletters for users to evaluate, because they covered various topics and featured a variety of subscribe and unsubscribe processes, content displays, and delivery frequencies. All the newsletters were general interest, covering topics such as travel, news, and entertainment.

Because of the special nature of email newsletters, we conducted the first study in two rounds, which differs from our normal usability studies. For a website, it makes sense to evaluate a single visit because users will never become repeat customers unless their first visit is successful. For newsletters, the user experience takes place over a period of time, as users first subscribe, then begin receiving issues, and perhaps later decide to unsubscribe.

For the first round, we spoke to users on the telephone as they activated subscriptions to two of the newsletters we chose for the project. This round ensured that all participants were receiving some of the newsletters we wanted to study and also ensured that the users had active subscriptions that we could ask them to cancel during the second round.

The second round took place three weeks after the first round and was a more traditional, in-person usability test. We visited the participants in their homes or offices so they could use their usual computers and internet connections. We also reviewed the users' inboxes to observe their behavior with newsletters they were receiving under normal usage circumstances.

During the second round, one of the users' tasks was to subscribe to additional newsletters. This let us study subscription-process usability more closely than was possible in a telephone conversation. We also asked participants to unsubscribe from the newsletters they'd subscribed to three weeks earlier. Finally, we observed users reading and working with newsletters and interviewed them about other aspects of the newsletter user experience.

For full details about the first study's methodology, please see the section *First Study: Sites, Newsletters Participants, and Methodology* (page 11).

SECOND STUDY

When planning another round of testing on email newsletters, we had several goals in mind. Specifically, we wanted to:

- Include users from a broader geographical area
- Evaluate newsletters that users had self-selected
- Include both business and personal newsletters
- Focus more closely on content

Given our ongoing experiences with email newsletters, we determined that subscription and account maintenance guidelines hadn't significantly changed since our first study. What we needed was a way to investigate users' personal

experiences with newsletters they already received. We therefore conducted an email-based diary study. Most of our participants were in the U.S., with additional participants in Australia, England, Hong Kong, Japan, and Sweden.

Users participated via email. Twenty-one people were involved in the study for four weeks and five people participated for two weeks. The study consisted primarily of users forwarding copies of email newsletters that they already received, answering direct questions about some of those newsletters, taking screenshots of their inboxes, and answering general questions about email newsletters. We contacted participants via email based on a predetermined schedule.

For more on the second study, see the section *Second Study: Sites, Newsletters Participants, and Methodology* (page 17).

THIRD STUDY

For the third study, we decided to review the guidelines for subscribe and unsubscribe processes. In addition, we used eyetracking technology to gather information about what users focused on when they looked at websites and newsletters. The main goals of our third round of research were to:

- Review, revise, or add to the subscribe/unsubscribe process guidelines
- Collect eyetracking information for using inboxes, reading newsletters, and using subscribe/unsubscribe processes
- Include users' own email accounts and email newsletters
- Evaluate RSS use
- Observe people using email and other information sources in work environments

We conducted usability sessions with 42 people in an office in New York City. We gave each participant the same set of tasks, including: subscribe to a newsletter, confirm the subscription or read a welcome message, read and evaluate email newsletters, select and read newsletters of interest, read your own newsletters, and unsubscribe from a newsletter. We also asked participants to use an RSS reader.

We selected four different sites and newsletters for the subscribing, reading, and unsubscribing tasks. We selected them on the basis of subject matter, the subscribe/unsubscribe processes, and content presentation. For the reading task, we selected eight newsletters that offered a variety of topics, content, formats, and frequency.

In another task, we asked users to peruse an inbox containing newsletters from 52 different sites, and select one newsletter to read and evaluate. The inbox included the 12 newsletters included in the subscribe and reading tasks, along with 40 additional newsletters.

Our third study also included field studies with six participants. In these studies, we observed participants performing typical work tasks in their offices over a 2.5-hour period. Our goal was to observe participants using email and email newsletters in their work environments, as well as to learn about other competing sources of information, including personalized web pages and RSS feeds.

For more on this study, see the section *Third Study: Sites, Newsletters Participants, and Methodology* (page 31).

FOURTH STUDY

When planning our fourth study, we had a number of goals. They were to:

- Review, revise, or add to existing subscribing process and newsletter content guidelines
- Include users' own personal and work-related newsletters and email accounts
- Collect users' comments and attitudes towards varying newsletter writing style and tone
- Evaluate how users interacted with video within newsletters
- Study people's use and attitude towards social network references during the subscription process and within newsletters
- Observe how users read newsletters on mobile devices

We conducted usability sessions with 10 people in Portsmouth, New Hampshire and six people in London. All participants were asked to review newsletters in personal and work accounts. Some newsletters were selected as part of the study and others were newsletters they already received.

All 16 participants reviewed newsletters on their mobile devices. In New Hampshire, all 10 participants also reviewed newsletters on a laptop computer.

For our London study, we selected six different sites and newsletters for the subscribing and reading tasks. We selected them on the basis of subject matter, the subscribe process, and content presentation. Two weeks prior to the study, we asked users to subscribe to three different newsletters based on their interests and preferences indicated during the screening process. During the test session, we reviewed the newsletters they signed up for as part of the study as well as newsletters in their own personal and work email accounts.

For our New Hampshire study, we gave users a list of 17 different sites and asked them to select one to sign up to receive updates from. Users selected nine sites to receive updates from via a newsletter, social network, or RSS. This task was given to gather expectations about content sent through newsletters, social networks, and RSS.

If users didn't sign up for the newsletter as part of the task, we asked them to do so in the next task. After they subscribed, we asked them to evaluate an edition of the newsletter in an inbox set up for the study. In addition, they were asked to evaluate another newsletter of interest in the study inbox. Finally, we asked users to subscribe to a newsletter from a website of their choice.

For more on this study, see the section *Fourth Study: Sites, Newsletters Participants, and Methodology* (page 50).

FIFTH STUDY

When planning our latest round of testing on email newsletters, we had several goals in mind. Specifically, we wanted to:

- Focus on newsletters read on a mobile device
- Include users from a broader geographical area
- Evaluate newsletters that users received on their own
- Include both business and personal newsletters

- Focus more closely on content

We conducted an email-based diary study. A total of 14 people participated in the study; six participants were in the U.S. and an additional eight participants were in Australia and the U.K.

Users participated via email and online surveys. The study ran for 9 days. A pre-assignment was given on a Thursday, which was due on Friday, and the remainder of the study (the main diary study) ran from the following Monday through Friday. The study consisted primarily of users forwarding copies of email newsletters that they opened and/or read on their mobile device, along with a screenshot of the newsletter. They answered questions about the newsletters as well as general questions about reading email newsletters on a mobile device. We contacted participants primarily via email; our initial email contact included a schedule of the study and what to expect.

For more on this study, see the section *Fifth Study: Sites, Newsletters Participants, and Methodology* (page 69).

SIXTH STUDY

When planning our sixth study, we wanted to do research to review and revise all aspects of newsletter usability from subscribe and unsubscribe processes to content and visual design. Our specific goals included:

- Review, revise, or add to the subscribe/unsubscribe process guidelines
- Collect eyetracking information for reading newsletters
- Include users' own email newsletters
- Gather data from both desktop and mobile use
- Evaluate, revise and add to content, layout and visual design guidelines
- Review, revise and add to sender, subject line and frequency guidelines

For subscription processes, we conducted remote unmoderated usability tests with 12 participants. We gave each participant a set of tasks asking them to subscribe to newsletters from a set of specific websites. We selected each site based on subject matter, the design of the subscribe process, and content presentation. We asked them specific follow-up questions regarding their experiences on each.

For unsubscribe processes, we conducted remote unmoderated usability tests with 16 participants. We asked each participant to unsubscribe from a few newsletters that they received in their own inboxes. We then asked them to fill out a survey regarding their experiences with each.

In addition, we conducted a two-week diary study with 10 participants. In this study, we asked users to forward us newsletter they received and fill out a corresponding survey to provide insights on their usability and value of each newsletter. This study was made up of two phases. The first phase required users to forward at least 8 newsletters that they chose to open and report their experience with each. The second phase asked users to forward at least 3 newsletters they liked and 3 newsletters they disliked, then answer corresponding survey questions about each. Our goal was to understand what newsletters were valuable and what worked well for users in terms of content, presentation, layout, and visual design.

Our sixth study also included research using eyetracking technology to gather information about what users focused on when they used websites and read

newsletters. These participants were asked to complete a variety of activities including:

- We asked users to read specific predefined message selected based on a variety of content presentations.
- We asked participants to sign into an inbox with 48 preselected newsletters and read any newsletters of interest. These messages included a variety of topics and areas of interest. The main goal was to understand reading patterns and what elements garnered attention among newsletters.
- In addition, we asked users to sign up for newsletters on 6 different sites selected based on a variety of subscription processes

For more on this study, see the section *Sixth Study: Sites, Newsletters Participants, and Methodology* (page 77).

First Study: Sites, Newsletters Participants, and Methodology

ABOUT THE SITES AND NEWSLETTERS STUDIED

For the first study, we studied one newsletter from each of 10 different websites. The newsletters differed in subject matter, format, and frequency. The newsletters had a range of delivery schedules, from several times a day to once a week. Because of time constraints, we didn't study monthly newsletters. We also asked users about newsletters they subscribed to prior to participating in the study.

The sites selected all offered at least one newsletter with reliable delivery. We selected the sites of companies from a variety of industries, including: ecommerce, reference, print publications, electronics, consulting, finance, news, recreation, and travel. In an attempt to assure that participants were interested in some of the newsletter topics, we selected newsletters with subjects having a broad appeal. The newsletters included in the first study are listed in the following table:

NEWSLETTERS IN FIRST STUDY		
Company and Newsletter	Company Description	Newsletter Description
Cooking.com <i>All About Shopping</i>	Online retailer selling cooking-related products and providing cooking content	Twice-weekly newsletter with special offers, products, and cooking tips (HTML format, with many images)
Dictionary.com <i>Word of the Day</i>	Online language reference	Daily newsletter featuring a word, its definition, and sample usage sentences (text format)
<i>The Economist</i> <i>The World This Week</i>	Website associated with weekly print magazine, focusing on world, business, and financial news	Weekly newsletter with headlines, story summaries, and images (HTML or text format)
<i>Entertainment Weekly</i> <i>EW Monitor</i>	Website associated with pop-culture magazine that offers news, reviews, and commentary	Daily newsletter with headlines and blurbs from the day's top stories (HTML format)
Handspring	Website for handheld computer (PDA) and wireless communications	Weekly newsletter with product information, tips and tricks, software, and user stories (HTML format)
The Herman Group <i>Trend Alert</i>	Strategic business futurists focusing on workforce and workplace issues	Weekly newsletter about trends and studies; always under 350 words (text format)

NEWSLETTERS IN FIRST STUDY		
Morningstar <i>Technology Bytes</i>	Investment research firm offering data on stocks and mutual funds	Twice-weekly column about technology companies and stocks (text format)
MSNBC <i>Breaking News Update</i>	TV channel and news-oriented website	Breaking news headlines delivered once a day or more (text format)
New York City Parks and Recreation <i>The Daily Plant</i>	City department responsible for 1,700 parks, playgrounds, and recreation facilities	Daily listing of the department's events, programs, and accomplishments (text format)
<u>Site 59</u> <u>Top Picks</u>	Company specializing in last-minute, discount travel packages	Weekly newsletter highlighting last-minute trip packages and deals (HTML format)

ABOUT PARTICIPANTS

Fifteen people participated in the first study, conducted in 2002. All participants were employed, and one participant was a college student who had a part-time job. All were between the ages of 20 and 55. We screened participants to exclude those working in the fields of web design and development, internet marketing, software programming, and usability research.

The study included seven men and eight women. All the participants lived or worked in New York City, and most had been working in their current fields between one and five years. Participants' occupations included:

- Academic Advisor
- Administrative Assistant
- Art Professor
- Advertising Creative Assistant
- Architect
- Assistant Performing Artist Manager
- Computer Lab Assistant (Student)
- Freelance Animation Producer
- Graphic Designer
- Library Technical Assistant
- Paralegal
- Telecommunications Sales Manager
- Video and Film Producer
- Youth Program Director

All participants had been using the internet for at least three months, and 12 participants had been using it for more than three years. Twelve participants used the internet every day, and three used it several times a week.

Eight participants used PCs and seven used Apple computers for the study. Participants used a variety of email programs for the study, including:

- AOL (four users)
- Hotmail (four users)
- Netscape mail (three users)
- Outlook (two users)
- Yahoo! (two users)

METHODOLOGY OF THIS STUDY

The first study was conducted in two parts: a 30-minute phone call and a 2-hour in-person usability test.

During the initial phone call, the facilitator led the users through the sign-up process for two newsletters, each on a different site. The goal was to get users successfully signed up for newsletters so that they could evaluate and unsubscribe from those newsletters during the in-person usability session. The facilitator took notes during the sign-up process, and asked users about their expectations for the newsletters once they were signed up. She also asked users to talk through what they were doing on their computer. This call, however, was not meant to collect usability feedback. Users were told to forward newsletters they received from the site to the test facilitator to ensure that the sign-up had been successful.

The second part of the study was a 2-hour in-person meeting that took place at least three weeks after the initial phone call. The three-week period allowed users to receive at least three newsletters from each site.

During the in-person usability session, the facilitator gave the users tasks to perform, including unsubscribing from the newsletters they were receiving, subscribing to new newsletters, and reading the new newsletters for content. After the subscribe and unsubscribe tasks, users rated their confidence, satisfaction, and frustration on a 7-point scale. They also evaluated the content of the newsletter in a series of statements rated on a 1 to 7-point scale, with 7 being the most positive rating.

After the tasks were completed, the facilitator discussed email newsletter usage with the participants. Participants discussed other newsletters they received and their preferences about newsletters.

The same facilitator conducted all the calls and in-person visits with all fifteen users. During the in-person session, the facilitator sat next to or slightly behind the users, observing and taking notes as users worked on the tasks.

Usage Order

Users signed up for two sites during the phone call. During the in-person session, they unsubscribed from those newsletters and signed up for newsletters on two additional sites.

The users evaluated newsletter sign-ups only during the in-person sessions. Each site was evaluated three times in each part of the study, both for subscribing and unsubscribing. The sites were used in different orders during the study to ensure they were used first and second in each part of the study at least once.

Session Location

The sessions occurred in users' homes or offices. Participants used their own computers and internet connections. The phone calls occurred at the user's home or office, depending on their preference.

Test Tasks and Discussion

The general tasks included two tasks asking users to unsubscribe from newsletters, two tasks asking users to subscribe to newsletters, and four tasks (two on each newsletter) asking users for information about the newsletters they read during the study. Sample tasks included:

- You currently receive cooking information in your email and you no longer want to receive it. Stop receiving the information.
- You want to improve your vocabulary. Go to www.dictionary.com and sign up to receive information about learning new words.
- What is National Trails Day? What is the quote of the day? (NYCParks.com)

After the subscribe and unsubscribe tasks, we gave users a written questionnaire about that site. The questionnaire attempted to evaluate the following criteria on a 1 to 7 scale, with 7 being the most positive rating:

- User confidence in their completion of the tasks
- User satisfaction with their completion of the tasks
- User frustration with their completion of the tasks

After reading each sample newsletter, users rated the following statements on a 1 to 7 scale, with 1 being least positive and 7 being most positive:

- The newsletter was easy to read.
- The information in the newsletter was interesting.
- The newsletter was written well.
- The newsletter was designed well.
- From the newsletter, I understand what content is available on the website.
- Overall, I was satisfied with the newsletter.

Users also answered the following questions:

- What, if anything, was easy to use and understand in the newsletter? What was difficult to understand and use in the newsletter?
- Would this newsletter make you want to visit the website it came from, or do anything else with the newsletter? Why or why not?
- What would you say is the primary purpose of the newsletter?
- How would you describe the newsletter's style of writing?
- How could the writing in this newsletter be improved?
- Are you satisfied with the amount of content in the newsletter? Why or why not?

ABOUT USING THIS METHODOLOGY

Telling users what to expect

The study involved users giving out personal information as well as allowing the facilitator to see their email inboxes. Users were asked during the screening process if they were willing to use their email addresses and warned that the facilitator would see their email inboxes. This didn't cause any users to drop out of the study, and alerted users to what they would be required to do.

Matching user interests

To try to account for newsletter evaluations being a matter of interest in the subject matter, we gave users a list of topics and asked which ones they would be interested in reading information about. We gave each user at least one newsletter that matched his or her stated interests in each part of the study.

Phone call

The initial phone call allowed us to make sure that users were signed up for newsletters so that we could test the unsubscribe process during the in-person session.

The phone calls all went smoothly with users. The initial study plan called for users to call the facilitator back after completing tasks if the user had to use the phone line for dial-up access during the call. However, all users either had multiple phone lines if they relied on dial-up connections or they used their cell phones for the phone call so a callback wasn't necessary.

It was important to make sure that if users completed the phone call at work and the session at home, that they could access the same email account from either location. One user signed up at work through his work account, but then participated in the study from his home. He subscribed from both his home and work email accounts.

Forwarding newsletters

Users were asked to forward the newsletters they received during the study and to save them until the study was complete. Participants were initially asked to forward the newsletters to the facilitator to ensure that they were actually receiving the newsletters and that sign-up had been successful.

Some users did run into delivery problems. The facilitator followed up with users who were not forwarding newsletters and helped to troubleshoot to make sure that all users eventually received their mail. One user had to adjust her security settings in Hotmail. Another had typed "Okay" in response to a confirmation email rather than "OK" and was not subscribed to a list. Another user's Hotmail account was not receiving mail for an unknown reason, so he created a new account for the study.

Once users forwarded copies of both emails they were receiving, the facilitator told them they could stop forwarding them. The week before the sessions, however, users were asked to forward newsletters again. The facilitator printed the latest copy of the received newsletters and took them to the sessions as a backup in case the users had deleted messages from their inboxes. Most users didn't mind forwarding their emails.

Reading new newsletters

Users subscribed to two additional newsletters during the session. Users were then asked to read and evaluate those newsletters for content and design. Initially, the facilitator was going to forward the most recent copy of the newsletter to the user. The plan was to set the delivery time so that the newsletter would arrive during the study and not before, to eliminate the possibility that users would delete or read the newsletter before the study. The sender address was also to be changed so that it appeared as though it were the actual newsletter.

The logistics of this plan proved too difficult because the facilitator could not reliably send email at specific times. To allow users to see newsletters onscreen, and to avoid sending them email in advance of the session, users instead logged into a Hotmail account set up for the study where they could view each newsletter. This worked well.

Scheduling and compensation

Both the phone call and the follow-up session were scheduled at the same time, which meant that the in-person sessions were scheduled at least three weeks in advance. We emailed all users to remind them of the study a day or two before their scheduled meeting times. Only two users had scheduling problems and were able to reschedule quickly.

Because of the length of the study and the use of the user's email, users were given slightly higher monetary compensation than normal.

The sessions were scheduled in 2-hour blocks, and most took about 1.5 hours. Only four sessions took place in offices, and the rest occurred at participants' homes.

Unsubscribing

During the in-person session, users were asked to subscribe to two additional newsletters. At the end of the session, we told them they could unsubscribe and offered to stay while they went through the process. Only one user unsubscribed immediately after the session was over.

Second Study: Sites, Newsletters Participants, and Methodology

ABOUT THE SITES AND NEWSLETTERS STUDIED

In the second study, we didn't select newsletters for users. Users evaluated only those newsletters that they signed up for and received on their own, independent of the study.

ABOUT PARTICIPANTS

Fifteen women and 11 men participated in the second study. (An additional four people participated in the two pilot studies, but these users are not included in this section's statistics). All participants were between the ages of 20 and 55 (nine were in their 20s, nine in their 30s, four in their 40s, and three were between the ages of 50 and 55¹).

All participants were employed. We accepted some participants who worked in technology or marketing fields, which we don't normally allow in a usability study. We did this because many newsletters are technology- or marketing-related, and we didn't want to exclude readers of these types of newsletters. We did screen participants to exclude those working in internet marketing or web design.

Participants had spent an average of seven years working in their respective fields. Their occupations included:

- Acting Director of Recruiting
- Administrative Assistant
- Artist
- Chef
- Community Relations Coordinator
- Computer Technical Support
- Director of Learning and Development
- Director of Strategic Planning
- Education Research and Development
- Game Artist
- Importer/Distributor of Semi-Durables
- Instructional Design and Delivery Manager
- Land Survey Crew Member
- Marketing Associate
- Ophthalmologist
- Outreach Coordinator
- Partners' Membership Coordinator
- Product Engineer

¹ For information about older users, please see our separate report, *Senior Citizens (Ages 65 and older) on the Web* (<https://www.nngroup.com/reports/seniors>). Even though this report is based on website testing and doesn't cover newsletter-specific issues, several of the findings are still relevant for newsletters that target seniors. In particular, HTML newsletters should let users specify bigger font sizes.

- Program Manager
- Regional Sales Manager
- Researcher
- Salesperson
- Senior Customer Support Specialist
- Software Project Manager
- Speech Language Pathologist
- Technical Communicator

Fifteen participants lived and worked in the U.S., and nine participants lived in other countries: England, Sweden, China (Hong Kong), Japan, and Australia. All participants were required to read and write in English, but newsletters could be sent in any language. Users lived in the following locations:

United States (alphabetical by state):

- Scottsdale, Arizona
- Berkeley, California
- Los Angeles, California
- San Francisco, California (two users)
- Boulder, Colorado
- Fairfield, Connecticut
- Woodstock, Georgia
- Chicago, Illinois
- Hartsdale, New York
- New York, New York
- Cleveland, Ohio
- Phoenixville, Pennsylvania
- Scranton, Pennsylvania
- Riverton, Utah
- Reston, Virginia
- Port Orchard, Washington

International (alphabetical by country):

- Artarmon, New South Wales, Australia
- Putney, New South Wales, Australia
- Hong Kong, China
- Redhill, Surrey, England
- Ealing, England
- Shizuoka, Japan
- Tokyo, Japan
- Linköping, Sweden (two users)

Our study participants all received both personal and work-related newsletters, and had to list examples of their newsletters. We tried to recruit an equal number of male and female users representing a range of ages, geographic locations, and

occupations. Originally, we had 31 participants, but 5 dropped out in the early stages of the study.

Participants had spent an average of 7 years online, with a minimum of 2 years and a maximum of 13. Most used the internet every day; 3 used the internet several times a week.

Participants used a variety of email programs for the study, and some used different tools for personal and work email.

- Outlook (11 users)
- Yahoo! (five users)
- Hotmail (four users)
- AOL (three users)
- Outlook Express (three users)
- Netscape mail (one user)
- Lotus Notes (one user)
- Bloomba (one user)

Differences in email program use between the two studies are not significant, but we do note a substantial growth for Microsoft Outlook and a substantial decline for AOL. These two changes are not surprising: they reflect general knowledge about the changing fortunes in enterprise computing and ISPs, respectively, in recent years.

METHODOLOGY OF THIS STUDY

In the first study, we asked users to sign up for and unsubscribe from email newsletters of our choosing, and we also asked them to read and evaluate newsletters of our choosing. Though we tried to match participants' stated interests with our newsletter selections, it was not the same as looking at what users actually received on their own and eliciting their opinions about those newsletters.

To get different information in the second study, we determined that a diary- or questionnaire-based approach would allow us to gather information we didn't get in the original study. In addition, doing a remote study allowed us to include a wider geographic range of participants and add an international component to the study.

Our study was conducted via email. After screening participants, we emailed them a schedule of participation, which gave them our preset schedule for contacting them. Because our users were spread out from New York to Sydney, we told users the schedule was based on dates on the U.S. East Coast. Because of the time differences, our participants in Japan, Hong Kong, and Australia typically received messages the day after we sent them, as they weren't checking email in the middle of the night.

We started the study with a request for users to forward one copy of all email newsletters that they had in their inboxes. We requested that users take screenshots of their inboxes on that day as well. After receiving the participants' forwards, we followed up with questionnaires about four of the forwarded email newsletters.

The rest of our contacts included requests for newsletters received within specific time frames, questionnaires about various topics relating to email newsletters, and one additional screenshot request.

As we discuss in *Recruiting and Participation* (next page), we conducted the study as a four-week study for 21 participants, and as a two-week study for five participants. In each study, users were contacted the same number of times and responded to the same questionnaires. Participants in the four-week study were asked to forward received newsletters one more time than participants in the two-week study.

Pilot study

We ran a pilot study with four users: one user participated in a one-week study and three users participated in a two-week study. The original structure of the study included sending follow-up questionnaires about each email newsletter received. We conducted a pilot study to improve our study methodology and to determine if our questionnaires and requests were clear.

Based on the pilot study, we made considerable changes to the structure of the study. We initially intended to send users the same questionnaire about various newsletters throughout the study, but we quickly found that they were tired of the questionnaire after they'd received it a few times. We also made changes to the wording of instructions and questionnaires to make them easier for users to understand and to get the information that we were trying to collect. Another change we made as a result of the pilot study was to limit the initial number of forwards users sent; one of our pilot study participants sent over 300 forwards of sample newsletters dating back to 2000.

Recruiting and participation

When planning the study, we expected that some users might drop out before completing the study. We knew from the participation in the shorter pilot studies that even users who seemed initially enthusiastic about the project soon grew tired of the process. Though we made changes to make the study more interesting for participants and more valuable for us, we were still cautious that we could lose several users over the four-week period.

We recruited 26 users for a four-week study, hoping to finish the study with at least 20 participants. We attempted to call every U.S. participant, with the idea that a human contact at the beginning of the study might encourage better participation. We were unable to reach a small number of participants via the phone. Contact with the international participants took place via email.

At the halfway point in the study, 11 participants had fallen behind in the study, and we had not received any response from three participants. Because of our concern that we were losing participants more rapidly than anticipated, we recruited five additional participants who completed the same study in a two-week time frame, concurrent with the last two weeks of the four-week study.

In all, five participants dropped out of the study. Three never responded to any requests and two others dropped out after beginning the study.

Sample email messages

Note: each message included extra space for answers to questions and closed with the facilitator's contact information, which is not included here. We sent messages in plain text and used symbols for emphasis in the messages.

Subject: Newsletter study schedule

Thank you for agreeing to be a part of Nielsen Norman Group's study of email newsletters. If at any time during the study you have any questions, please email me at newsletters@nngroup.com

-----Your participation and schedule-----

I plan to contact you by email about the study approximately eight times. On each day, I will include instructions about your tasks for that day. The dates may vary slightly, but the targets are the following days (Eastern Time, U.S.):

Thursday, November 20

Tuesday, November 25

Monday, December 1

Friday, December 5

Monday, December 8

Thursday, December 11

Monday, December 15

Thursday, December 18

On Friday, December 19, I will mail or email your honorarium as a thank you for your participation.

Your participation on each of these days will mostly involve you forwarding email newsletters that you receive to me and answering questions about those newsletters. It may also involve answering additional questions about email newsletters and taking a screenshot, or a picture, of your email inbox, trash, and spam or junk mail folder, if you have one.

The questionnaires are mostly very short, but there are a few longer ones, too. We would really appreciate it if you bear with us on the few longer questionnaires and do write comments whenever you see fit. These help us enormously.

-----How the information from the study will be used-----

Nielsen Norman Group will publish a report and presentation about this study. All identifying information and any proprietary information will be removed from your newsletters and screenshots prior to their inclusion in our report.

-----Instructions for now-----

During this study, please continue to use all email accounts that you normally do. If you have personal email account as well as a work email account, please check both. Check your email accounts only as often as you normally would.

Thank you for your participation. You will receive the first email with instructions on November 20 (Eastern Time, U.S.). Please do not hesitate to email me with any questions or feedback you may have.

Subject: Newsletter request: One issue of all newsletters

(Email 1a of 8)

Welcome to the Nielsen Norman Group email newsletter study. Here are the steps to do now:

- Go through your email inbox(es), including your new mail folder, other folders, and the trash. Look for ALL email newsletters that you have.
- Forward *one issue of each email newsletter* that you have in your email account(s) to me at newsletters@nngroup.com (To forward in most email programs, open the newsletter and click the *Forward* button. Address it to me and send the message.)
- Even if you have already put a newsletter in the trash, please forward it if you still have a copy of it.
- If you have multiple email addresses, please check them all.
- If you have a large number of email newsletters in your email accounts, please send *no more than 20.*

-----What is a newsletter?-----

We consider an email newsletter to be any email communication that you receive from an organization on a recurring basis. If you are unsure whether an email fits the definition, assume that it does.

All personal, identifying, or proprietary information will be removed from your newsletters prior to their inclusion in our report.

Please contact me at newsletters@nngroup.com with any questions.

Subject: Request for screenshots

(Email 1b of 8)

Take a screenshot, or picture, of your email inbox and email trash as it looks right now and email them to me in a Word document. Please include both images in one document. If you have any sort of spam or junk mail folder, please include an image of that folder as well.

NOTE: Please do this twice today, once in the morning and once in the afternoon. If you received this message in the afternoon or evening, please do it once now and once tomorrow morning.

Instructions for both PC and Macintosh users are listed below.

-----On a PC: -----

1. Make your email program the active or selected window on your screen, as though you were checking your email.
2. Press the *Print Screen* key on your keyboard. This button is usually in the upper right corner of your keyboard. It may appear as "Prt Scr". Pressing it will take a picture of your screen. (You will not hear or see any feedback.)
3. Open a new Word document and paste the image into the document, by clicking in the blank document and then going to the *Edit* menu and choosing *Paste*.
4. Return to your email program and click to open your email program's trash.
5. Repeat step 2.

6. Return to your Word document and paste the image into the document, beneath the image of the inbox.
7. Take a screenshot of your junk mail or spam folder, if you have one, and paste it in the document.
8. Save the document and name it with your last name and the date. For instance, StoverNov202003.doc.
9. Address an email to me at newsletters@nngroup.com , attach that document, and send the email.

-----On a Macintosh:-----

1. Make your email program the active or selected window on your screen, as though you were checking your mail.
2. Hold down the *Command*, *Shift*, and *3* key on your keyboard at the same time. You will hear a sound like a camera click if your volume is turned up.
3. Open a new Word document and paste the image into the document, by clicking in the blank document and then going to the *Edit* menu and choosing *Paste*.
4. Go back to your email program and access your email program's trash.
5. Repeat step 2.
6. Return to your Word document and paste the image into the document, beneath the image of the inbox.
7. Take a screenshot of your junk mail or spam folder, if you have one, and paste it in the document.
8. Save the document and name it with your last name and date. For instance, StoverNov202003.
9. Address an email to me at newsletters@nngroup.com , attach that document, and send the email.

Questionnaire about individual newsletters, sent to users as a forward added to their sent email newsletter:

(Email 1c of 8)

Please answer the following questions about this particular issue of the newsletter that you forwarded to me (see bottom of this email for a copy of it).

This is the longest questionnaire you will receive during this study. You will receive no more than four of these questionnaires today. We would really appreciate it if you bear with us on the few longer questionnaires, and please do write comments whenever you see fit. Your comments help us enormously.

Reply to this message, and answer each question by typing the letter or number that corresponds with your answer next to "Type letter/number/answer here:"

*If this newsletter is in a language *other than English,* please include the following information:

Website or organization the newsletter came from:

General subject matter of the newsletter:

1. Do you receive this newsletter for business or personal use?
 - a. Business
 - b. Personal

Type letter here:

Comments:

2. Do you remember signing up for this newsletter?
- a. Yes
 - b. No

Type letter here:

Comments:

3. If you don't remember signing up for it, why do you think you received it?

Type answer here:

4. Did you read this newsletter?
- a. Read thoroughly
 - b. Read parts of it/Skimmed through the content
 - c. Plan to read it later
 - d. Did not read it and don't plan to

Type letter here:

Comments:

5. Which parts of this newsletter did you read? Why did you read them? If you are not planning to read the newsletter, why not?

Type answer here:

6. In what format do you receive this newsletter?
- a. HTML format — It includes images, pictures or colors and may resemble a web page.
 - b. Text-only — It includes only plain text, with no images or pictures.

Type letter here:

Comments:

Please answer the following questions on a 1–7 scale. Your answer should be a number between 1 and 7. If the question is not applicable, type N/A.

7. Information in the newsletter

Not useful 1 2 3 4 5 6 7 Very useful

Type number or N/A here:

Comments:

8. Length of the newsletter

Too long 1 2 3 4 5 6 7 Too short

Type number or N/A here:

Comments:

9. The way the newsletter looks/aesthetics

Does not look good 1 2 3 4 5 6 7 Looks very good

Type number or N/A here:

Comments:

10. Ease of finding information of interest in the newsletter

Very difficult to find information 1 2 3 4 5 6 7 Very easy to find information

Type number or N/A here:

Comments:

11. Overall value of the newsletter for you

Not at all valuable 1 2 3 4 5 6 7 Very valuable

Type number or N/A here:

Comments:

12. Frequency of the newsletter

Too frequent 1 2 3 4 5 6 7 Not frequent enough

Type number or N/A here:

Comments:

13. How often do you receive this newsletter?

- a. Daily
- b. Multiple times a week
- c. Weekly
- d. A few times a month
- e. Monthly
- f. Less than once a month
- g. Other:
- h. I don't know.

Type letter here:

Comments:

14. If you have any additional comments about any aspect of this newsletter, good or bad, please type them here:

Thank you.

Standard email newsletter request

Subject: Newsletter request: Received since Sunday

(Email 2a of 8)

Thank you for your participation in our email newsletter study. Here are the steps to do now:

- Go through your inbox(es), including your new mail folder, other folders, and the trash.
- Forward me a copy of all email newsletters that you have received since Sunday. (To forward in most email programs, open the newsletter and click the *Forward* button. Address it to newsletters@nngroup.com and send the message.)
- Even if you have already put a newsletter in the trash, please forward it if you still have a copy of it.
- If you have multiple email addresses, please check them all.

-----What is a newsletter?-----

We consider an email newsletter to be any email communication that you receive from an organization on a recurring basis. If you are unsure whether an email fits the definition, assume that it does.

All personal, identifying, or proprietary information will be removed from your newsletters prior to their inclusion in our report.

Please contact me at newsletters@nngroup.com with any questions.

Subject: Most valuable newsletters

(Email 2b of 8)

Think about all the email newsletters you receive, including those you have forwarded as part of the study and any other newsletters you currently receive. Consider both work-related and personal email newsletters.

Of all the newsletters you receive, which are the most valuable to you? (Please select about four newsletters.) Why are they valuable?

Please be as specific as possible about each newsletter. This will be the only question to answer for the day.

Please contact me at newsletters@nngroup.com with any questions.

Subject: Least valuable newsletters

(Email 3b of 8)

Think about all the email newsletters you receive, including those you have forwarded as part of the study and any other newsletters you currently receive. Consider both work-related and personal email newsletters.

Of all the newsletters you receive, which are the least valuable to you? (Please choose about four newsletters.) Why aren't they valuable?

Please be as specific as possible about each newsletter. This will be the only question to answer for the day.

Please contact me at newsletters@nngroup.com with any questions.

Subject: What do you do with your newsletters?

(Email 4b of 8)

Think about all the email newsletters you receive, including those you have forwarded as part of the study and any other newsletters you currently receive. Consider both work-related and personal email newsletters. Please answer all questions below.

Please be as specific as possible. These will be the only questions to answer for the day.

1. Saving newsletters
 - a. Are there any email newsletters you receive that you normally save for more than a day? (If yes, please list by name of newsletter and name of company or sender)
 - b. Why do you save them?
 - c. Where do you save them? (Inbox? Another folder? What folder?)
2. Forwarding newsletters
 - a. Do you ever forward email newsletters to someone else? (If yes, please list by name of newsletter and name of company or sender)
 - b. Who do you send them to (co-workers, friends, relatives, yourself to another address), and why?
 - c. When you forward a newsletter, do you generally add anything to the newsletter or remove anything from the newsletter before sending it?

Subject: Business newsletters

(Email 6b/8)

Think about all the email newsletters you receive that are *work or industry-related.*

1. What is your most valuable work or industry-related email newsletter? Why?
2. Do you receive any work-related email newsletters from vendors or businesses that you (or your company) have an ongoing business relationship with? If so, which newsletters are they?
3. Are the newsletters you receive from these companies valuable?
4. Do you ever make or influence *work-related* purchases based on any email newsletters you receive? If so, please explain.

5. Of the work or industry-related email newsletters you receive, do any offer content that is personalized to you? If so, which newsletters, what personalization do they offer, and what do you think about it?

Subject: Questions about email newsletters

(Email 7 of 8)

Please answer all the questions below. This is the only newsletter request you will receive today — you do not need to forward any email newsletters.

Please be as specific as possible and consider both work and personal newsletters. If you have any questions, email me at newsletters@nngroup.com

1. Approximately how many email messages do you receive in your work email account in a day? About what percentage of the messages you receive in your work account are junk mail, or spam?
2. Approximately how many email messages do you receive in your personal email account in a day? About what percentage of the messages you receive in your personal account are junk mail, or spam?
3. Do you use any sort of spam or junk mail filter, or anything that sorts your email messages for you? If so, please explain.
4. Do you prefer to receive your newsletters as text (plain text, no images or pictures) or HTML (includes images, pictures, and colors)? Why?
5. Do you receive any newsletters that don't look right when they're delivered (for example, pictures don't show up, or design elements look wrong)?
 - a. If so, which ones, what is wrong with them and why do you think they look that way?
6. Do any of your newsletters use your name in the content of the newsletter (for example, they greet you by name at the beginning of the newsletter)?
 - a. What do you think about newsletters using your name?
7. Do any of your newsletters provide content that is personalized, specific for you (for example, content that is only about your interests or information that is specific to where you live)?
 - a. If so, which newsletters, what personalization do they offer, and what do you think about it?

Subject: Final questionnaire

(Email 8 of 8)

Thank you for participating in our email newsletter study. This is the final day of the study, and this will be your last questionnaire. If you have any questions, email me at newsletters@nngroup.com

Please answer all the questions below. Please be as specific as possible.

1. How do you decide what newsletters you want to sign up for? Give a specific explanation for why you signed up for three of your email newsletters.
2. What is the last newsletter you unsubscribed from? Why did you unsubscribe?
3. Are there any newsletters that you look forward to receiving? Which ones, and why?
4. Are there any newsletters that have become a routine part of your day, week, or month? Which ones, and why?

5. Are there any newsletters that increase your productivity, in your personal or professional life? Which ones, and why?
6. What are three things that annoy you about email newsletters?
7. What are three benefits of email newsletters?
8. If you could give advice to someone creating a new email newsletter, what would you tell them?

ABOUT USING THIS METHODOLOGY

Our methodology worked well for the study. Our biggest challenge was in maintaining a relationship with 26 different users and keeping track of their individual participation in the study. We maintained a spreadsheet of users' participation, but following up with individuals about their outstanding questionnaires was time consuming. We included contact information in each contact with users and advised them to email with any questions. Fortunately, users didn't have very many questions during the study so it was not difficult to keep up with answering individual questions.

When users didn't respond to requests, we forwarded the message to them again after one to three days, keeping the original message and simply adding the word "REMINDER" to the subject line. This worked relatively well. At the halfway point in the study, we called participants who had not yet responded. One user quit on the phone and another said his computer was broken. No one we called finished the study.

When we recruited additional participants, we knew we only had two weeks for users to respond. We asked that they try to respond within 24 hours of receiving a request. We advised them that doing so would make participation easier for them, since they were going to receive eight requests in 10 working days. We had no problems receiving timely responses in the two-week study. In fact, on the two days when we didn't request any participation from users, we received messages from participants asking if we forgot to send the requests.

The pilot study was extremely valuable in terms of determining what people would be willing to do and when the study seemed to be asking too much of them. It also helped us clarify the language in our study email messages and come up with a fairly successful format for a text-only email-based questionnaire.

Two users had difficulty with screenshots. One was able to follow the instructions, but the resulting document was too large for him to email. He used a file-sharing site to send the first document, and the facilitator then sent him instructions for decreasing the file size so he could email it from his existing free email account.

In retrospect, the two-week study was more successful. Users were asked to do something for the study almost every day for two weeks, so it became an expected part of their day for that time frame. Users in the four-week study lost track of when they would be contacted, and were less reliable about responding quickly. While response times could have been more of a factor of the individuals recruited for each part of the study, it seems that the shorter, more routine schedule was more effective. A drawback to the shorter schedule, however, was that it decreased the chances of receiving editions of monthly newsletters.

Because the study was conducted via email, we had to determine the best way to pay participants. Typically, we meet participants in person and hand them their

incentive money. For participants in the U.S., we gave participants the option of online gift certificates or payment by check. Most took the check. International participants were given the choice of a Visa gift card or a check in U.S. dollars, with a small additional amount to cover international check-cashing charges. Half selected the check and half selected the gift card. Some users who selected the check were highly suspicious of the gift card because they were not familiar with the concept and felt it was not the same as a check. Also, the issuing bank could not send gift cards internationally, so the cards had to be sent first to the facilitator and then on to participants. In retrospect, simply sending all international users a check would have been better.

Third Study: Sites, Newsletters Participants, and Methodology

ABOUT THE SITES AND NEWSLETTERS STUDIED

We selected newsletters from 52 sites for the third study. These sites included the four sites used for subscribing and unsubscribing tasks and the eight newsletters selected for a task in which users read and evaluated a newsletter. An additional 40 newsletters were in a group inbox that users perused in order to select a newsletter of interest to read. This inbox included newsletters from all 52 sites.

All newsletters included in the study needed to cover subject areas broad enough to interest multiple users. We asked users during the screening process which topic areas they were interested in and matched the newsletters and sites users tested with their stated interests. We also selected newsletters for their variety of presentation, use of images, writing style, length, and frequency.

Each of the sites used for the subscription and unsubscribe tasks sent at least one weekly newsletter. This let us set up accounts for users so they could receive at least one edition of each newsletter that we asked them to unsubscribe from.

The newsletters we selected featured varied subscribe and unsubscribe processes. Two sites required a confirmation of subscription and two did not.

The sites and newsletters used for the subscription, read, and unsubscribe tasks are listed in the following table:

NEWSLETTERS IN THIRD STUDY: SUBSCRIBE, EVALUATE, AND UNSUBSCRIBE		
Company and Newsletter	Company Description	Newsletter Description
Allrecipes.com <i>Daily Dish</i>	Food site featuring recipes and meal ideas from home cooks	One recipe a day, delivered Monday through Friday (HTML or text format)
Bankrate.com <i>Frugal News</i>	Financial site that provides aggregated financial rate information to consumers. Also publishes personal finance stories and articles	Weekly newsletter with ideas on how to save money and cut costs, delivered every Tuesday (HTML or text format).
SmarterTravel.com <i>Last-Minute Airfares</i>	Travel site that provides information about discount travel and promotions	Weekly text newsletter with time-sensitive discount airfares from airports of the user's choosing
USAToday.com <i>Daily Briefing</i>	Newspaper covering U.S. and world news and events, as well news about money, sports, lifestyle, technology, and weather	News headlines delivered each business day (in HTML or text format)

Users chose newsletters to read from an inbox filled with newsletters from 52 different websites. The newsletters selected for reading tasks are listed in the following table:

NEWSLETTERS IN THIRD STUDY: EVALUATE ONLY		
Company and Newsletter	Company Description	Newsletter Description
AdAge.com <i>AdAge Daily</i>	Provider of news about marketing, advertising, and media	Daily news, five days per week (HTML format)
BNET <i>Business Tools for Busy Leaders</i>	Website focused on business leadership, with white papers, case studies, webcasts, and content aimed at business leaders	Weekly headlines and articles to help leaders manage their businesses (HTML format)
Fodors.com	Publisher of travel guidebooks, with information on places to stay, eat, and shop	Weekly newsletter with travel advice and information (HTML format)
<i>The New York Times</i> <i>Books Update</i>	Newspaper with national and international news	Weekly newsletter with book reviews, news, and features from the print <i>New York Times Book Review</i> (HTML format)
ManhattanUsersGuide.com	Publisher of information about life in New York City	Daily information about New York City, focusing on restaurants, entertainment, services, politics, architecture, and media (HTML format)
Overstock.com <i>O-Mail</i>	Website offering discount prices on brand names	Ecommerce newsletter with deals, savings, and offers (HTML format)
WineLoversPage.com <i>The 30-Second Wine Advisor</i>	Website offering tips and information on wine	Weekly information on wine tasting and wine appreciation (HTML format)
Zacks.com <i>Profit from the Pros</i>	The website of Zacks Investment Research, a firm providing tools and financial information for individuals and institutions	Text newsletter with investment insights, stock tips, ideas, and marketing commentary, delivered five days a week

In addition, the inbox included the 12 newsletters listed above, along with the following newsletters:

NEWSLETTERS IN THIRD STUDY: SELECT FROM INBOX		
Website	Newsletter	Subject matter
AMNH.org	<i>AMNH e-Notes</i>	Events and exhibits at New York City's American Museum of Natural History
ArtsJournal.com	<i>Today's ArtsJournal Newsletter</i>	Arts information
BeliefNet.com	<i>Daily Inspiration</i>	Religion and faith
BusinessWeek.com	<i>Top Stories Insider</i>	Business news
CareerBuilder.com		Jobs information
CircuitCity.com		Shopping/retail for electronics
Citi-Habitats.com	<i>My CitiSearches Open House Program</i>	Real estate open houses
Comics.com	<i>Your Daily Dilbert</i>	Comics
eDiets.com	<i>eDiet Bytes</i>	Diet/exercise information
Edmunds.com	<i>InsideLine</i>	Cars
Elle.com	<i>Elle.com Update</i>	Fashion and style
Ellen.WarnerBros.com	<i>Ellen Weekly Newsletter</i>	Television show updates
ENN.com	<i>ENN Daily News</i>	Environmental news
FoxNews.com	<i>FNC Alert</i>	Breaking news
Gayot.com	<i>The Food Paper New York</i>	Restaurant information for New York City
Healthology.com	<i>Weekly Health Newsletter</i>	Health tips and information
HistoryChannel.com	<i>This Day in History</i>	Historical news from the day
IGN.com	<i>IGN Insider</i>	Gaming information
JamBase.com	<i>JamBase Weekly</i>	Live music and performances
KnitPicks.com		Sewing/knitting ecommerce
MarketingSource.com	<i>Virtual Marketing Newsletter</i>	Marketing tips

NEWSLETTERS IN THIRD STUDY: SELECT FROM INBOX		
MiracleGro.com	<i>Timely Gardening Tips</i>	Gardening products and tips
NewYorkRangers.com	<i>New York Rangers Game Notes</i>	Professional hockey team game information
NYC.gov	<i>My NYC.gov News</i>	City news and announcements regarding traffic and transit
OnTheHouse.com	<i>On The House Tip of the Day</i>	Home maintenance/home improvement
Parenting.ivillage.com	<i>Toddlers, Kids, & Teens</i>	Parenting tips
PetPlace.com		Pet care information
PopSci.com	<i>PopSci Weekly Newsletter</i>	Science headlines
RitzCamera.com		Photography information and ecommerce
RottenTomatoes.com	<i>Fresh/Rotten Report</i>	Movie reviews
Sears.com		Shopping/retail for department store
<u>Southwest.com</u>	<i>Click 'N Save Update!</i>	Airline news and airfare specials
TechBargains.com	<i>TechBargains Weekly Newsletter</i>	Discounts and specials on technology
TechNewsWorld.com	<i>Tech News Flash</i>	Technology news headlines
TheGarden.com	<i>Backstage Access</i>	Events at Madison Square Garden
TownHall.com	<i>What's New</i>	Political news and commentary
UNICEF.org	<i>UNICEF News</i>	Information on the non-profit organization's activities
Weather.com	<i>Weather and travel forecast</i>	Weather forecast
WorkingKnowledge.HBS.edu	<i>Working Knowledge</i>	Business news from Harvard Business School
Z100.com	<i>ZVIP E-mail Alert</i>	Events and promotions for a radio station in New York City

ABOUT PARTICIPANTS

In the third study, 42 people participated in the eyetracking study and six people participated in field studies.

Fifteen men and 27 women participated in the eyetracking study. Two additional users were recruited but did not participate in the study due to scheduling conflicts. All were between the ages of 20 and 55, with eight users between ages 20 and 29 years old, 15 between ages 30 and 39, 14 between ages 40 and 49, and two between ages 50 and 55.

All eyetracking participants were drawn from participants in a previous eyetracking study, and we selected them from a list of participants who had calibrated well using the eyetracking system. The eyetracking tool had to be calibrated for each user to track eye movements on the browser. Based on our previous experiences with the technology, we determined it was best to include only those users who could be successfully calibrated. In the newsletter study, we asked users to do entirely different tasks than they were asked to do in the previous study.

To participate in our third study, users were required to receive at least one email newsletter and had to either name or describe that newsletter. All participants lived or worked in New York City.

All participants were employed except one, who was a homemaker and mother; another participant was a college student and part-time drugstore employee.

Participants' occupations included:

- Account Executive (two participants)
- Account Manager (two participants)
- Accountant
- Art Director
- Art Gallery Manager
- Assistant
- Case Manager
- Clothing Designer
- Compliance Officer
- Customer Service Representative
- Fashion Industry Worker
- Financial Analyst (two participants)
- Financial Services Representative
- Home Improvement Specialist
- Homemaker
- Lawyer
- Medical Assistant
- Medical Biller
- Mental Health Social Worker
- Musician
- Office Manager
- Paralegal
- Personal Assistant

- Postal Worker
- Public Relations Account Executive
- President
- Print Salesperson
- Project Manager
- Real Estate Agent
- Real Estate Broker
- Realtor
- Salesperson
- Sales Associate
- Software Salesperson
- Student/Drugstore Employee
- Studio Manager
- System Administrator
- Teacher/Counselor
- Urban Planner/Teacher

We asked users if they had an email account that they could access from a computer other than their own as part of the study, with the understanding that we would only be looking at email newsletters in their accounts. All but six users agreed to this.

Users accessed their email via the following tools:

- Yahoo! (11 users)
- Hotmail (nine users)
- AOL (five users)
- Gmail (four users)
- OptOnline (two users)
- A work email account (one user)
- Juno (one user)
- CompuServe (one user)
- Mail.com (one user)

Six additional users — three women and three men — participated in field studies. Four were between the ages of 20 and 29, and two were between the ages of 30 and 39. All participants had been using the internet for more than three years, and all agreed to let us visit them at their work place for 2.5 hours during a standard workday.

Field-study participants were required to receive at least one work-related email newsletter. In addition, two were required to use RSS and two were required to use personalized web pages. All users worked within a 1.5-hour drive of New York City. Users worked at offices in the following locations (alphabetical by state):

- East Hanover, New Jersey
- Rochelle, New Jersey
- Union, New Jersey
- Fort Greene, New York
- New York, New York

- Port Washington, New York

All field-study participants were employed, and we excluded any people working in usability, web design, or internet marketing. We tried to recruit users from a variety of positions at different-sized companies. Participants had the following occupations:

- Blogger, News Website (one employee in home office)
- Branch Manager, Employment Agency (two to 10 employees in work location)
- Business Analyst, Food Production and Distribution (more than 100 employees in work location)
- Graduate Assistant, University MBA Department (more than 100 employees in work location)
- Information Technology Manager, Mergers and Acquisitions Firm (41 to 100 employees in work location)
- Systems Administrator, EKG Analysis (two to 10 employees in work location)

This list of occupations includes a larger proportion of technology professionals than we usually like to include in our studies. This was necessary in order to meet our requirements for participants who used RSS (news feeds): a technology that was not widely adopted by mainstream users at the time of our third study.

METHODOLOGY OF THIS STUDY

Our third email newsletter study revisited the existing usability guidelines in order to update or amend them. The study also used eyetracking to observe what users were looking at as they completed each task.

To facilitate the use of the eyetracking technology, we conducted the study at a New York City office located in midtown Manhattan. We used Tobii's eyetracking technology and ClearView software to analyze the results.

We conducted the study in individual sessions over a two-week period. Each user participated in a session that lasted 75 minutes. Each session began with the calibration of the eyetracking software to enable tracking of the user's eye movements.

The facilitator gave users tasks to perform, including subscribing to an email newsletter, reading two email newsletters selected for them, reading a welcome message or confirming the newsletter subscription, reading the latest edition of the newsletter subscribed to, picking two newsletters of interest to read from an inbox filled with newsletters, and reading two newsletters of their own in their own accounts. Users also used an RSS reader.

We wrote all tasks on individual sheets of paper. We asked users to read the tasks and then summarize them back to the facilitator. We did this to ensure the task was clear to the user.

This was a quantitative study, and we didn't ask users to think out loud during the sessions. This was due in part to the use of the eyetracking technology: we didn't want discussion of users' actions to affect what they were looking at on the screen.

After each task, users completed a questionnaire. For each task where it was appropriate, users rated their confidence in completing the task, satisfaction in completing the task, and frustration with completing the task. For each reading-evaluation task, users rated newsletters on a series of criteria on a 1 to 7 scale, with

7 being the most positive. Users also completed a few additional questions specific to each task.

Following each task, we asked users if there was anything they liked or disliked about the task and received commentary from users in that way.

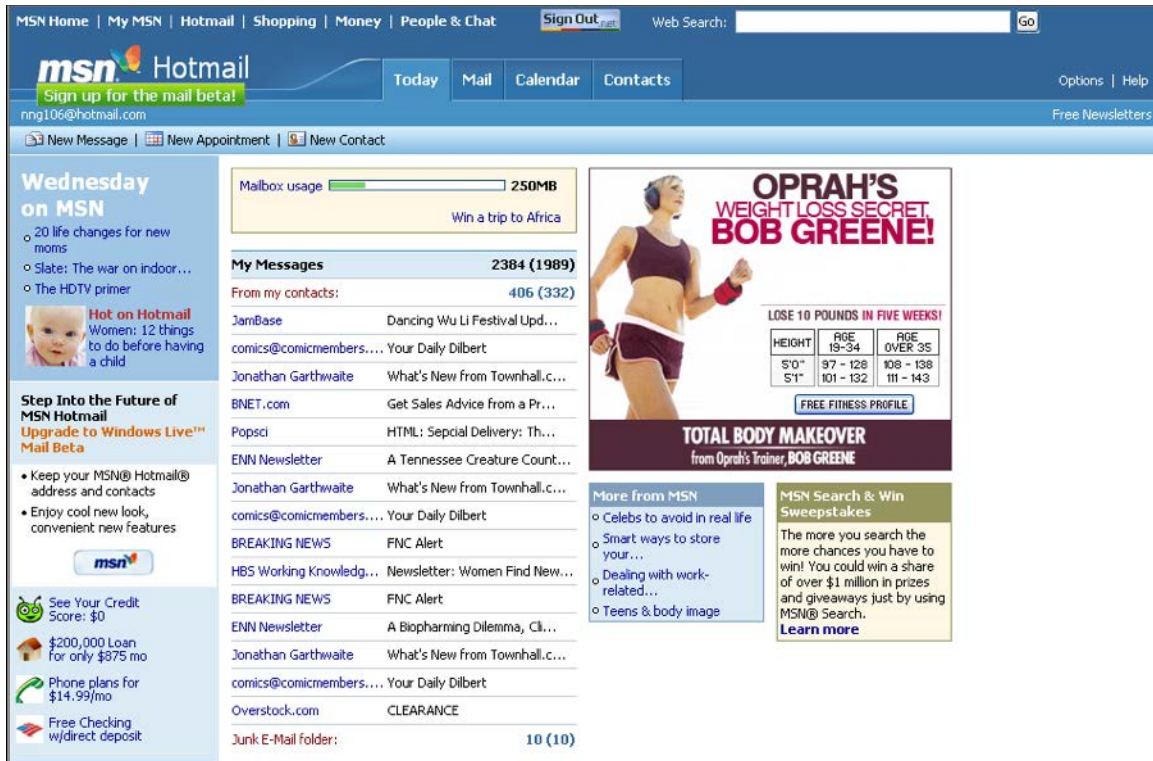
The same facilitator ran all sessions, helping to ensure consistency in how the tests were run. The facilitator sat at the eyetracking observation monitor while users participated on the test monitor. The facilitator was slightly behind the users, observing and taking notes as users worked on the tasks. Sessions were recorded via the eyetracking software as well as on videotape, and participants wore a microphone during the session. We informed participants of our recording plans both when we recruited them and at the start of the session.

Pilot study

We ran two pilot studies with two users each. We conducted these studies to ensure that tasks and questionnaires were clear, and that sites, newsletters, and the eyetracking technology were functional. We also wanted to determine how many tasks users could complete within the scheduled 75-minute session.

Based on the pilot studies, we made tweaks to how tasks were worded. We also shortened the post-task questionnaires, re-ordered tasks, and finalized details so that tests using the eyetracking technology would run smoothly.

In the pilot studies, we discovered that users who were unfamiliar with Hotmail — the study's email tool — had a lot of difficulty using it. Users were particularly confused by the tool's introductory page. The page listed only a handful of messages from the inbox, and users didn't know if it was their full inbox, or, if not, how to access the rest of their inbox messages.



Hotmail's introductory page confused users. Users didn't know if this was their full inbox, or, if not, how to access the rest of their messages.

Because testing Hotmail's usability was not one of our goals, we decided to give users a brief introduction to Hotmail. At the beginning of each session, we showed users two printed screens from a sample Hotmail account that didn't include any of the study's newsletters. We showed users the introductory page they'd see after logging in to an account, how to move from that page to the inbox, and what a full inbox looked like. This helped alleviate the problems with Hotmail.

Recruiting and Participation

All users who were a part of the study had participated in another Nielsen Norman Group eyetracking study at some time within the previous four months. Normally, we would not reuse participants, particularly within such a short time frame. However, it's difficult to calibrate some users with the eyetracking technology. Various factors can affect the quality of the eyetracking calibration, including bifocals, long eyelashes, heavy makeup, or hair that covers the users' eyes.

Because successful eyetracking was crucial to the study, we gathered a list of participants from the previous study that had calibrated well with the eyetracking tool. We recruited users from this list, looking for a mix of gender, age, and web experience.

This method made recruiting much more efficient for several reasons. Users came from a pre-existing list, and had already proven that they'd show up for a usability study. We also had information about the users and knew if they fit our profile or not.

Given this, we determined that the value of reusing participants outweighed any concerns. The previous study they'd participated in was in no way related to email newsletters or to subscribing to or unsubscribing from them.

Users had already gone through a screening process for the previous study, but we had a few additional screening questions for this study. The most important questions were: if they received any email newsletters, if they would be willing to access an email account of their own during the session, and which subject areas they were interested in reading about. All users needed to receive at least one email newsletter. Users were given an option of allowing us to see their email inboxes or not, and all but six users allowed it. We used the subject-matter question to determine which newsletters to show each user.

Approximately one user canceled or rescheduled each testing day. We were able to reschedule or replace all but two users, leaving us two users shy of our goal of 44 users in the study (four in the pilot tests, and 40 in the final study).

Usage Order

Users viewed two newsletters selected to match their interests. Each user viewed a different set of two newsletters, from a list of eight newsletters selected for the study. Each newsletter was viewed by nine to 11 participants. Half of the participants who viewed each newsletter viewed it in the first of the two reading tasks, and the other half viewed it second.

Tasks and Questions

Subscription Task

Each user completed one subscription task on one of four sites; tasks varied to include information relevant to that site. We gave each user an individual email account to use for the task. For example, the task specific to Allrecipes.com was:

You like to cook and want new ideas for what to cook for dinner. Sign up to receive information in your email to give you new ideas for what to cook from Allrecipes.com.

Your email address for this task is: [username@hotmail.com]

Users started the task on a blank web page, and were asked to use the browser's list of *Favorites* to navigate to the appropriate homepage. If users opened the *Favorites Explorer* rather than using the menu, they were asked to close the *Favorites* pane after making their selection. This task was completed as a screen stimulus.

After the task, users answered the following questions:

- Have you used this website before today?
- Have you ever received email from this site/company?
- How confident are you that you completed the task? (1–7)
- How satisfying was doing this task? (1–7)
- How frustrating was doing this task? (1–7)
- How trustworthy do you think this site/company is? (1–7)
- How interested are you in the information you signed up for? (1–7)

- Do you have to do anything else in order to receive the information you signed up for? If so, what do you have to do?
- How frequently do you expect to receive the information?
- What kind of information do you expect to be in the newsletter?
- Will the newsletter include pictures, colors, or images?

Read User's Own Newsletter (two tasks)

During the recruiting process, we asked users if they would be willing to check their own email account as a part of the study. All but six users agreed to do so. We asked participating users to complete the following task twice:

Log in to an email account of your own where you receive email newsletters.

Check your mail and read any newsletter that you haven't already read. Read it as though you were reading it on your own, at home or work.

Users began this task on a blank web page and proceeded by navigating to whatever email tool they regularly used. The second task of this type was started from the ending point of the previous task whenever possible. This task was completed as a screen stimulus.

After the task, users answered the following questions:

- What company was the message from?
- Do you receive this newsletter for business or personal use?
- Do you remember signing up to receive this newsletter?
- If you **don't** remember signing up, why do you think you received it?
- Was the information in this newsletter useful? (1–7)
- Was it easy or difficult to find information in this newsletter? (1–7)
- What did you think of the writing of the newsletter? Was it well written or poorly written? (1–7)
- What did you think of the look, or the aesthetics, of the newsletter? (1–7)
- How trustworthy is the company that sent this newsletter? (1–7)
- Overall, how valuable was this newsletter? (1–7)
- How often do you read this newsletter (in part or the whole thing)? (1–7)
- How frequently do you get this newsletter?

Evaluate a Newsletter (two tasks)

We selected eight newsletters for this task. We matched the newsletters to users' stated topics of interest, based on questions they answered during recruiting.

Read the message, which is a recent edition of a newsletter.

Pretend that you are signed up for the newsletter and you just received this in your own email. Read it the way you would if you received it in your own mail.

Users began each task on a page displaying the newsletter as it appeared in a Yahoo! inbox. Each user saw the same edition of the newsletter, to allow for the creation of heat maps. This meant the newsletters were slightly out-of-date as the

study progressed, but were never more than two weeks old. This task was completed as a web stimulus.

After each task, users answered the following questions:

- What company or website was this newsletter from?
- Have you ever visited the website for this company?
- Have you received email from this company or site before?
- Was the information in this newsletter useful? (1–7)
- Was it easy or difficult to find information in this newsletter? (1–7)
- What did you think of the writing of the newsletter? Was it well written or poorly written? (1–7)
- What did you think of the look, or the aesthetics, of the newsletter? (1–7)
- How trustworthy is the company that sent this newsletter? (1–7)
- Overall, how valuable was this newsletter? (1–7)
- Would you want to sign up to receive this newsletter in your own email account? Why or why not?
- What was the primary purpose of this newsletter?

Read a Welcome Message or Confirm a Subscription

Users signed up for a newsletter as the first task in the session. In this task, users checked their individual email accounts, set up for the study, to check any messages received from the newsletter for which they already signed up. For two newsletters, this was a welcome message, and for the other two, this was a confirmation request.

Check your email and read any messages you have received about the cooking information that you signed up for earlier.

Your email address for this task is: [username@hotmail.com]

Your password is: [password]

Users began each task on a blank web page and were asked to navigate to Hotmail.com using a link in the browser's *Favorites*. The task was completed as a screen stimulus.

After each task, users answered the following questions:

- How confident are you that you completed the task? (1–7)
- How satisfying was doing this task? (1–7)
- How frustrating was doing this task? (1–7)
- Was the information in this message useful? (1–7)
- Was it easy or difficult to find information in this message? (1–7)
- What did you think of the writing of the message? Was it well written or poorly written? (1–7)
- What did you think of the look, or the aesthetics, of the message? (1–7)
- How trustworthy is the company that sent this message? (1–7)
- Overall, how valuable was this message? (1–7)

Read the Latest Edition of the Newsletter Subscribed To

We asked users to read the latest edition of the newsletter they had subscribed to during the study's first task. Because the newsletter would not yet have been delivered to their individual email accounts, users logged into a group email account that every user accessed for this task. This inbox included subscriptions to 52 different email newsletters, including the four used for the subscription task.

Read the latest edition of the cooking-related newsletter you signed up for earlier today.

You will use a different email account for this task.

Your email address is [username@hotmail.com]

The password for your email account is [password]

Note: Although you just signed up for the newsletter today, the latest edition may be more than one day old.

Users began this task on the Hotmail login page. This task was completed as a web stimulus.

After each task, users answered the following questions:

- Have you seen this newsletter before?
- How confident are you that you completed the task? (1–7)
- How satisfying was doing this task? (1–7)
- How frustrating was doing this task? (1–7)
- Was the information in this newsletter useful? (1–7)
- Was it easy or difficult to find information in this newsletter? (1–7)
- What did you think of the writing of the newsletter? Was it well written or poorly written? (1–7)
- What did you think of the look, or the aesthetics, of the newsletter? (1–7)
- How trustworthy is the company that sent this newsletter? (1–7)
- Overall, how valuable was this newsletter? (1–7)
- Did this newsletter meet your expectations, based on what you thought you would receive when you signed up for it? Why or why not?
- Would you want to sign up to receive this newsletter in your own email account? Why or why not?
- What was the primary purpose of this newsletter?

Pick a Newsletter of Interest (two tasks)

We asked users to log in to the group email account, which contained newsletters from 52 different sites, and select and read any newsletter that looked interesting to them. We included this task to let users select a newsletter that matched their own interests.

There are many different newsletters in this inbox. Look through the email and pick the one message that looks the most interesting to you.

Read the message as though you are receiving it in your own email.

For this task, your email address is [username@hotmail.com]

The password for your email account is [password]

Users began each task on a blank web page and were asked to navigate to Hotmail.com using a link in the browser's *Favorites*. The second task of this type was started from the ending point of the previous task whenever possible. The task was completed as a screen stimulus.

After each task, users answered the following questions:

- What company or website was this newsletter from?
- Have you ever visited the website for this company?
- Have you received email from this company or site before?
- Was the information in this newsletter useful? (1–7)
- Was it easy or difficult to find information in this newsletter? (1–7)
- What did you think of the writing of the newsletter? Was it well written or poorly written? (1–7)
- What did you think of the look, or the aesthetics, of the newsletter? (1–7)
- How trustworthy is the company that sent this newsletter? (1–7)
- Overall, how valuable was this newsletter? (1–7)
- Would you want to sign up to receive this newsletter in your own email account? Why or why not?
- Was the newsletter what you expected, based on the subject line and sender of the email? Why or why not?

Unsubscribe

We asked users to unsubscribe from a newsletter. We used the same set of sites for this task as we used for the subscribe task. In order to unsubscribe, users obviously needed an active subscription; given this, in advance of the study, we subscribed each individual study email account to a newsletter from another site. For example, a user asked to subscribe to Allrecipes.com was asked to unsubscribe from USAToday.com, or a user who subscribed to SmarterTravel.com was asked to unsubscribe from Bankrate.com.

A few months ago, you signed up to receive cooking-related email, and you no longer want to receive it. Stop receiving the information.

For this task, your email address is [username@hotmail.com]

The password for your email account is [password]

Users began each task on a blank web page and were asked to navigate to Hotmail.com using a link in the browser's *Favorites*. The task was completed as a screen stimulus.

After each task, users answered the following questions:

- Have you used this company's website before today?
- Have you received email from this company before?
- How confident are you that you completed the task? (1–7)
- How satisfying was doing this task? (1–7)
- How frustrating was doing this task? (1–7)
- How trustworthy do you think this company/site is? (1–7)

- Do you think you will receive any additional email from this site/company? If so, what do you think you will receive?

Using an RSS Reader

(Even though we tested RSS news feeds as part of the third newsletter study, the results from this part of the research are not included in the present report. They are presented in our separate report on *Streams, Walls, and Feeds*, which also includes findings from additional RSS studies and from studies of social media.)

We asked participants to use an RSS reader. This task had two parts: first, to use the reader to read any items of interest and to acquaint themselves with the tool; and second, to locate a headline from a specific source. We gave users a brief explanation of RSS under the assumption that it would be a new concept to many of the users, which turned out to be correct.

We used four different tools for this task: Awasu, Bloglines, FeedDemon, and Rojo. Two were web-based and two were standalone tools. We provided users with usernames and/or passwords as needed. Each tool was set up in advance of the study to include headlines from a variety of news sources, blogs, and websites.

Many sites offer content through RSS.

This means that you can read headlines or information from the website in an RSS reader. RSS readers tell you when new content is available from sites and allow you to read headlines and information from many different websites all in one place, rather than having to go to many different sites to read information. You can choose which information is shown in the reader.

There are many different RSS readers, or tools, that allow users to read RSS headlines. Now you will use one of them.

When the tool opens, take a few minutes to use the tool and read any items of interest to you.

Users of the web-based tools began the task on a blank web page, and we asked them to navigate to the tools via shortcuts in the *Favorites* menu. For the standalone applications, we asked users to look away from the monitor as the tool was loaded and began the task once the tool was loaded on their monitor. Each task was completed as a screen stimulus.

When users said they were finished exploring the tool, we continued with the task's second part:

Now, using this tool, find the latest headlines from CNN. Pick any CNN story that is interesting to you and read it.

When you are finished reading the story, you will be asked to write a brief summary of the information, as though you were telling a friend about what you learned.

Users began this task where they left off on the previous task.

After each task, users answered the following questions:

- Please summarize the story you read. Pretend you are telling a friend about what you learned.
- How confident are you that you completed the task? (1–7)

- How satisfying was doing this task? (1–7)
- How frustrating was doing this task? (1–7)
- How easy or difficult was it to find information of interest to you? (1–7)
- Before today, were you familiar with RSS?
- Before today, have you ever used an RSS reader?

Field Studies

The third study also included field studies with six participants. We visited users at their offices during their normal workdays. We asked users to receive permission from their supervisors and colleagues, as appropriate.

Each 2.5-hour visit included at least two hours of observation. Users were asked to do what they would normally do in the course of their workday, as if we were not there. Users were not asked to describe each activity they were doing. We didn't interrupt users except for quick questions to clarify what they were doing.

We sat slightly behind users and observed and took notes during the visit. We focused on how they received and used information throughout the day, with a particular emphasis on their use of email, newsletters, RSS, and personalized web pages. Two participants used RSS and four had personalized web pages.

We ended each session with follow-up questions regarding their activities during the visit as well as additional questions about their use of email, newsletters, RSS, and/or personalized web pages. If users had not used RSS or their web page during the visit, we asked them to open the tool or web page and explain their use of it.

We took photographs and video as allowed. Users gave their permission for pictures and videos during the recruiting process, and confirmed their permission at the beginning of the session.

ABOUT USING THIS METHODOLOGY

Using the Eyetracking Technology

The eyetracking technology we used had several constraints. It didn't track sites with dynamic menus well, so we avoided using sites with such navigation. The technology also had trouble creating heat maps for pages with dynamic content and dynamic URLs, and didn't handle pop-up windows well. We avoided all such sites accordingly. Before the studies began, we tested many sites with the eyetracker to establish which ones would create the most successful heat maps.

At the start of each session, we calibrated the eyetracking tool. A website was open on the monitor, and we asked users to sit at the computer in a comfortable position. We asked them to pull in their desk chairs and put a hand on the mouse, to try to get them in a position that would mimic how they'd be sitting for the length of the study.

We then asked users to watch a blue dot as it moved around the monitor, growing and shrinking in size. As users watched the dot move, the facilitator's computer provided information on the calibration quality. If the calibration was not good enough, the process was repeated until an adequate calibration was achieved. To accommodate different users, the facilitator sometimes had to adjust either the monitor's height or the distance between the monitor and the user.

If users moved significantly between tasks or if the system crashed, we sometimes had to recalibrate the users. We therefore told them that they might need to repeat the blue dot exercise later in the session.

We told users we were recording where they were looking on the monitor. We also explained that, due to the technology used, if they sat back or forward in their chair or put their hand under their chin, we'd have to ask them to change their position to allow the eyetracking to work.

Users completed tasks using the test monitor, and the facilitator sat in the same room at another monitor, which displayed the eyetracking software. Each task began with the facilitator launching a window on the user's computer; this started the eyetracking and recording of the task.

Each task began as either a web stimulus or a screen stimulus. This was a factor of the eyetracking tool. Using a web stimulus meant the software could create heat maps based on unique URLs, and could create cumulative heat maps across many users. Screen stimuli merely recorded whatever images appeared on the screen, and didn't automatically create heat maps.

The user's monitor was an extension of the facilitator's, so between tasks, control of the keyboard and mouse switched to the facilitator. Also, the user's monitor didn't have any taskbar and couldn't include shortcut links. Because of this, the facilitator set up each task for users and told them when to begin. For tasks using a screen stimulus, the facilitator launched a blank browser or piece of software and started the recording tool. For tasks using a web stimulus, the software could launch a browser page for the user.

Because the facilitator had to launch programs for participants using a screen stimulus, many tasks began with a blank web page (the homepage set to blank in Internet Explorer). The facilitator then asked users to navigate to the appropriate site via a list of *Favorites* in the browser.

To begin the tasks using the RSS standalone tools, the facilitator had to first open the tool for the users. Because we wanted to capture eyetracking for the users' initial view of the tool, we asked them to look at a note tacked to a nearby wall while the software loaded. We told them when they could look at the screen, after the tool loaded and the recording began.

Approximately once a day, the eyetracker crashed during sessions. This sometimes required reconnecting the eyetracking monitor, and other times required a restart of the whole system. When this happened, we explained to users that there was a problem with the computer and told them it would take a few minutes to correct. In only one case did we have to cancel a user's session because the technical problem couldn't be fixed.

Setting up inboxes

In the first study, we visited users at their homes or offices and asked them to sign up for information using their own accounts. In this study, users had to come to a lab setting, so we needed to ensure that users would be able to access their email accounts on the lab computer. We therefore set up individual email accounts for each user before the study and didn't ask them to use their own email addresses to sign up for any information.

Also, because of the eyetracking technology, we had to use an email tool that tested well with the technology. We originally planned to use Yahoo!, but the eyetracking software performed better with Hotmail.

Each user received an individual Hotmail account to use for subscribing, reading a welcome message or confirming their subscriptions, and for unsubscribing. We set up each account in advance and subscribed each to email newsletters in advance so they'd have active subscriptions to cancel in the unsubscribe task.

Also, we wanted users to evaluate the newsletters they signed up for during the subscription task based on their expectations during that process. However, we couldn't count on newsletters that users subscribed to being delivered during the 75-minute sessions. We therefore set up a group account and subscribed it to all four subscription-task newsletters.

This account was also subscribed to newsletters from the eight sites used for the evaluation tasks and an additional 40 newsletters from 40 different sites.

Each user had his or her own individual account, and all participants used the group account. Because the group account was a live mailbox — that is, it was constantly receiving new newsletter editions — it was rare for two users to see the exact same inbox. To eliminate any effect of previous users on later users, we marked all messages as unread between sessions. Also, if users deleted or moved inbox messages, we returned the messages to the inbox.

For the most part, using these accounts was successful. However, using assigned email addresses did seem to affect users during the subscription process. In our first study, users signed up with their own email addresses and were very concerned with privacy, spam, and the information that sites requested of them. Users in our third study were much less concerned with such things, most likely because they weren't using their own email addresses. Users seemed much more willing to sign up for information when they knew it would have no impact on them beyond the test session.

Accessing users' email accounts

During the screening process, we asked users if they had an email account that they could access from a computer other than their own, and if they were willing to use that email account during the study. Specifically, we addressed this issue as follows:

As a part of this study, we are interested in seeing what email messages people receive in their own accounts.

We are interested in messages that come from companies and organizations, rather than from friends, relatives, or colleagues.

To help us with our research, and with your permission, we would like you to look at your email account with us during the study.

We will respect your privacy throughout the study, and will not use any identifying or personal information about you or your email account in our reports or presentations.

Will you be willing to log in to your email account as part of the study?

All but six users agreed to this.

Several users accessed their email via AOL. The AOL web-based email tool opened messages in a new window. This was a problem with the eyetracking tool we used because the user's message opened on the facilitator's screen, rather than the user's screen. When this happened, we told the user we had to make a quick change to allow them to see the message. We asked users to look at a note tacked on a nearby wall while we moved the message to their monitor and restarted the eyetracking. Although this interrupted the task flow, it didn't seem to negatively impact the user's experience.

Only one user was unable to check his email during the study. He tried to remotely access his work email account, which required a download to the computer. This caused the eyetracking tool to crash. The problem was not resolved quickly enough to continue with his session, but he did volunteer to return at a later date to finish the rest of his session, which he did a few days later.

In some cases, when users accessed their email accounts, they contained only one or two messages. We therefore suspect that some users set up accounts for the study. This was not our intention, as we wanted to see users' actual inboxes. This seemed to be the case for only two or three users and it didn't affect the overall study.

Matching Users' Interests

During the screening process, we asked users about their interest in many different topics. We simply read a list of topics, and users answered yes (if they were interested in reading about that topic) or no (if they were not).

Most users said they were interested in almost every topic listed. However, when they viewed newsletters about topics they said they were interested in, they declared that they didn't care about the topic. This was not a problem in the first study, which we conducted in a similar way. Our third study's users had already participated in one of our studies, however, and were probably eager to come back again; they therefore might have expressed interest in everything to make sure they qualified to participate.

Fourth Study: Sites, Newsletters Participants, and Methodology

ABOUT THE SITES AND NEWSLETTERS STUDIED

London study

We selected six newsletters and asked each London participant to sign up for three of them prior to their session date. The sites and newsletters used for the London participants were:

NEWSLETTERS IN FOURTH STUDY, LONDON ONLY: SUBSCRIBE AND EVALUATE		
Company and Newsletter	Company Description	Newsletter Description
BBC Weather <i>BBC Weather Newsletter</i>	Site covering weather-related news stories and topics	Weekly newsletter featuring highlights from the BBC Weather site (in HTML format)
Frommer's <i>Deals & News</i>	Guidebook and site with travel tips, advice, and deals	Deals and travel news delivered every Monday, Wednesday, and Friday (in HTML format)
Hello! Magazine <i>hellomagazine.com newsletter</i>	Celebrity news weekly magazine and site that covers latest UK celebrity news	Weekly newsletter covering top celebrity news stories in UK (in HTML format)
<u>The Independent</u> <i>Indy News</i>	London-based daily newspaper that covers national UK news and international news	Daily newsletter with links to the top stories from the UK and around the world (in HTML format)
Reuters <i>Reuters Daily Investor Update</i>	UK-based news service that provides news from around the world on a variety of topics	Daily newsletter covering activity in London markets, including UK stocks, top corporate news, latest broker research and stock tips (in HTML or text)
Yahoo! Sport UK & Ireland <i>Yahoo! Eurosport</i>	Sports news site that covers latest UK and Ireland sports news	Daily newsletter covering latest UK and Ireland sports news (in HTML format)

New Hampshire study

For our New Hampshire study, users signed up for a newsletter from one of 17 sites we selected for the study.

We selected the sites for the subscription task because they offered a variety of newsletters and topic areas, and featured varied subscribe processes. Three sites required a confirmation of subscription and the rest did not. In addition, the sites offered other ways to receive information, such as through RSS or a social network. All sites offered updates through Facebook, Twitter, or both, and nine sites also offered updates through RSS.

The following table lists the nine sites and newsletters users chose for the subscription and evaluation tasks in the New Hampshire study:

NEWSLETTERS IN FOURTH STUDY, NEW HAMPSHIRE ONLY: SUBSCRIBE AND EVALUATE		
Company and Newsletter	Company Description	Newsletter Description
Babies"R"Us/ Toys"R"Us <i>Safety and Recall Notices</i>	Ecommerce site that sells products for babies and children	Updates sent on an as-needed basis about new product recalls (in HTML or text format)
The Daily Puppy <i>The Daily Puppy</i>	Site featuring puppy pictures, videos, and information	Daily email featuring a "puppy of the day" (in HTML format)
Lonely Planet <i>Best of Lonely Planet</i>	Travel advice, tips, and destination information	Newsletter sent two to four times a month with photos, videos and discussions from travelers, authors, and staff (in HTML format)
Ode Magazine <i>And now for the good news...</i>	Print and online publications about positive news	Daily newsletter featuring a summary of positive news stories (in HTML or text format)
Susan G. Komen for the Cure <i>KomenLink</i>	Organization supporting breast cancer research	Monthly newsletter with updates on research, fundraising, and events (in HTML format)
Thrillist <i>Thrillist Boston</i> (2 users)	Digital lifestyle publication, providing newsletters with information about 17 U.S. and UK cities.	Daily newsletter featuring Boston's top restaurants, bars, entertainment, shops, and technology (in HTML or text format)

NEWSLETTERS IN FOURTH STUDY, NEW HAMPSHIRE ONLY: SUBSCRIBE AND EVALUATE		
Tide <i>Tide Current</i>	Laundry detergent manufacturer	Monthly newsletter with product promotions, laundry tips, and ongoing initiatives (in HTML format)
Virgin <i>Fare Alerts</i>	California-based domestic airline	Updates sent on an as-needed basis featuring travel deals and alerts (in HTML format)
Zappos.com <i>n/a</i>	Ecommerce site that sells shoes and apparel	Weekly newsletter featuring deals, new styles, and special offers (in HTML format)

Users were asked to choose and read another newsletter of interest from the testing inbox. In addition to the nine newsletters listed in the table above, the inbox also contained a single edition of 35 additional newsletters.

The 10 newsletters that were chosen and evaluated by users during this task are listed in the following table:

NEWSLETTERS IN FOURTH STUDY, NEW HAMPSHIRE ONLY: EVALUATE ONLY		
Company and Newsletter	Company Description	Newsletter Description
Bob's Stores <i>n/a</i>	Ecommerce site that sells apparel	Newsletter featuring new products, deals, and promotions sent weekly or two times per week (HTML format)
Carnival Cruise Lines <i>n/a</i>	Cruise line	Newsletter featuring cruise deals and promotions sent once or twice per week (in HTML format)
Dale Carnegie <i>n/a</i>	Professional training organization	Upcoming training courses, webinars, and events (in HTML format)
EHS Today <i>Weekly Update</i>	Site that informs professionals in the service sector about how to provide safe and healthy work sites	Weekly newsletter that highlights environment, health, and safety stories (in HTML format).
eMusician <i>eMusician XTRA</i>	Print and online publication providing information about music recording technology and techniques	Newsletter sent twice per month containing industry news, new products, and events in the music industry (in HTML format)

NEWSLETTERS IN FOURTH STUDY, NEW HAMPSHIRE ONLY: EVALUATE ONLY		
Foundation Center <i>Philanthropy News Digest</i>	National non-profit service organization that works to strengthen the non-profit sector by advancing knowledge about U.S. philanthropy	Weekly newsletter listing philanthropy-related news stories (in plain-text format)
Funniest Stuff <i>Today's funny stuff</i>	Site featuring funny videos, pictures, and jokes	Newsletter with new and top-rated videos, pictures, and jokes sent twice per day (in HTML format)
Funny or Die <i>Weekly F'Bomb</i>	Site featuring funny videos, pictures, and jokes	Weekly newsletter with new and top-rated videos, pictures, and jokes (in HTML format)
Kraft <i>food&family</i>	Food and beverage corporation	Newsletter featuring family-friendly recipes sent once or twice per week (in HTML format)
Toyota <i>Your Toyota eNews</i>	Automobile maker	Monthly newsletter featuring stories about Toyota in the news (in HTML format)

In addition to the sites and newsletters we chose for users to subscribe to and/or evaluate, we asked users to think of a newsletter they'd be interested in subscribing to. Users subscribed to newsletters from the following sites:

NEWSLETTERS IN FOURTH STUDY: SELECT FROM INBOX		
Website	Newsletter	Subject matter
Autonews.com	<i>Automotive News Weekly Digest</i>	Breaking news and headlines about the automotive industry
Bobstores.com		Ecommerce site that sells apparel
Compassionatefriend.org		Self-help bereavement organization for families who have lost a child
DHS.gov		U.S. governmental organization working to prevent terrorist attacks
Hurley.com		Store and ecommerce site that sells apparel
Keithurban.net		Fan site for country music singer, Keith Urban

NEWSLETTERS IN FOURTH STUDY: SELECT FROM INBOX		
NHinsider.com	<i>Letters to the Editor</i>	Site providing political news updates and commentary, focusing on state and local issues
Oldnavy.com		Store and ecommerce site that sells apparel
Spiegel.com		Ecommerce site that sells women's apparel
<u>Tjmaxx.com</u>		Store that sells discounted brand name apparel

ABOUT PARTICIPANTS

Sixteen people participated in the fourth study. All participants were employed. All were between the ages of 20 and 55. We screened participants to exclude those working in the fields of web design and development, internet marketing, software programming, and usability research.

The study included eight men and eight women. 10 participants lived or worked in the greater Portsmouth, New Hampshire area. Six participants lived or worked in the greater London area.

Participants' occupations included:

- Actor
- Audio Engineer
- Election Services Manager
- Finance Consultant
- Financial Sales Support
- HR Administrator
- Lithographic Printer
- Personal Assistant (two users)
- President, Non-profit Organization
- Real Estate Agent (two users)
- Recruitment Consultant
- Safety Manager
- Sales Representative
- Senior Recruiter of Healthcare Therapists

All participants had been using the internet for more than three years. All participants used the internet for over 10 hours every day, with the exception of one participant who used it between five and 10 hours per day.

We asked New Hampshire users if they had both work and personal email accounts that they could access from a computer during the study, with the understanding that we would only be looking at email newsletters in their accounts. (In the London study, users only accessed their own email from their mobile device.) All users

agreed to this during the recruiting process. Users accessed their email via the following tools:

- Yahoo! (six users)
- Hotmail (one user)
- Gmail (four users)
- Work account (seven users)
- Personal domain (two users)
- Rocketmail (one user)
- Comcast (one user)

In addition, we asked all users if they had at least one email account that they could access from their mobile device as part of the study, with the understanding that we would only be looking at email newsletters in the email accounts. All users agreed to do this.

All participants used a mobile device to check their email at least three times per week.

Participants used a variety of mobile devices to access their email for the study. One user had two devices: a feature phone for personal use and a Blackberry issued by her company. Users accessed email using the following devices:

- iPhone (six users)
- Blackberry (six users)
- Other Smartphone (two users)
- Feature phone (three users)

METHODOLOGY OF THIS STUDY

Our fourth email newsletter study revisited the existing usability guidelines in order to update or amend them. The study also focused on newsletter content, including tone of voice, videos, social network references, and work-related newsletters. In addition, the study included tasks to gather information about how people perceived and used updates sent through social networks, RSS, and newsletters. Finally, the study focused on how people access and use email newsletters on mobile devices.

We conducted the study in individual sessions over four days. We conducted one day of testing in London and three days of testing in New Hampshire. Each London session lasted one hour and each New Hampshire session lasted two hours. In London, users accessed email newsletter from their mobile devices. After running six sessions in London, we increased the New Hampshire session duration to gather more data about work-related and personal newsletters accessed on a testing laptop *and* a mobile device.

In the London study, the facilitator gave users tasks to perform, including reading the newsletters they were asked to receive as part of the study, as well as accessing and evaluating newsletters they were already subscribed to on their mobile devices.

In the New Hampshire study, the facilitator gave users tasks to perform, including subscribing to updates via a social network, RSS, or an email newsletter, subscribing to an email newsletter, reading a newsletter subscribed to during the study, reading an additional newsletter of interest, subscribing to an email newsletter of their

choice, reviewing favorite and least favorite work-related and personal newsletters, and reviewing frequently and infrequently accessed newsletters on mobile devices.

We wrote all tasks on individual sheets of paper. We asked users to read the tasks and then summarize them back to the facilitator. We did this to ensure the task was clear to the user.

After each task, users completed a questionnaire. For each subscription task, users rated their confidence in completing the task, the difficulty level in completing the task, the information provided while completing the task, frustration with completing the task, and their level of trust in the company whose newsletter they subscribed to. For each reading-evaluation task, users rated newsletters on a series of criteria on a 1–7 scale, with 7 being the most positive.

Following each task, we asked users a series of follow-up questions and received commentary from users in that way. At the end of the study, the facilitator asked some additional interview questions.

The same facilitator ran all sessions, helping to ensure consistency in how the tests were run. Sessions were recorded via Morae. We informed participants of our recording plans both when we recruited them and at the start of the session.

Recruiting and Participation

We recruited 16 participants for the study. Users were required to:

1. Receive at least three newsletters for personal reasons and at least three newsletters for business or work purposes [New Hampshire participants only, London participants were required to receive at least two newsletters: at least one work-related newsletter and one personal newsletter]
2. Be willing and able to access work-related and personal newsletters in work and/or personal email accounts on a testing computer [New Hampshire participants only]
3. Be willing and able to access at least one email account containing work-related and/or personal newsletters from a mobile device [All participants]
4. Access email from a mobile device at least three times per week and must have done so for more than three months
5. Be willing to subscribe to three newsletters two weeks prior to the scheduled session [London participants only]
6. Be willing to save all work-related and personal newsletters for two weeks (between recruitment and the scheduled session)
7. Have a Facebook, Twitter, or RSS account that they log into at least several times/week

Tasks and Questions: London Study, six users

Read newsletters received as part of study

We asked users to read the most recent editions of the three newsletters they subscribed to two weeks prior to their scheduled session. The following task was given three times, once for each newsletter they subscribed to as part of the study.

Read the latest _____ newsletter you received in your email. As you read it, let me know what you like or don't like about it or if you think anything is confusing or works well.

After they read through and commented on the newsletter, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How easy was it to read this newsletter on your phone?
- How trustworthy is the company that sent this newsletter?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- Would you ever want to read this newsletter on your phone again? Why or why not?
- Did you read any of the messages you received from _____ during the week leading up to the study? Why or why not? If so, what did you think of the messages?
- What are your general thoughts or feedback about this newsletter?
- Was there anything you really liked or disliked about this newsletter?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?
- [After all newsletters have been reviewed]: Which newsletter did the best job of conveying information to you? Which newsletter did the worst job?

Read own newsletters (not those received as part of study)

We asked users to read newsletters they already received (not those they were asked to sign up for as part of the study). The following task was given at least twice.

Check your email and read any recent newsletters you have received from companies or organizations. As you read each newsletter, let me know what you like or don't like about it or if you think anything is confusing or works well.

After they read through and commented on the newsletter, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How easy was it to read this newsletter on your phone?
- How trustworthy is the company that sent this newsletter?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- What company was this from?

- What kind of information does it contain?
- Do you normally read this email newsletter when you receive it on your phone? Why or why not?
- Do you normally read this email newsletter if you receive it on your computer? Why or why not?
- How easy or difficult is it to read this message on your phone?
- What are your general thoughts or feedback about this newsletter?
- Was there anything you really liked or disliked about this newsletter?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?

Review any tweets, SMS messages, or newsfeeds from companies or organizations

If users received tweets, SMS messages, or news alerts from companies or organizations on their mobile device, they reviewed them with the facilitator. Four out of six users completed this task.

Read any notifications you have received from companies or organizations via Twitter/SMS/RSS. As you read them, let me know what you like or don't like about them or if you think anything is confusing or works well.

After they read through and commented on the messages, users were asked some interview questions:

- What company was this from?
- What kind of information does it contain?
- Why did you sign up to receive this information on your phone?
- What are your general thoughts or feedback about this Tweet/SMS/Alert?
- Was there anything you really liked or disliked about this Tweet/SMS/Alert?
- What was the most important piece of information in this Tweet/SMS/Alert?
- What, if anything, is missing from this Tweet/SMS/Alert?
- Is there anything you would do to improve this Tweet/SMS/Alert?
- Do you use Twitter to receive tweets from individuals as opposed to companies?
- Do you use a news feed on your computer at home or work? If so, why don't you use one on your phone?

Post-Test Questions

After users completed all tasks, they were asked post-test questions.

- How often do you check or read your email using your phone?
- Why and when do you check your email on your phone, rather than on a computer?
- How frequently do you read newsletters on your mobile device? (Asked in screener as well)
- Are there any newsletters you receive that are easy to read on your phone?
- Are there any newsletters you receive that are difficult to read on your phone?

- Are there any newsletters you receive that you always read on your phone? If so, why?
- Are there any newsletters you receive that you never read on your phone? If so, why? Do you ever open them on a PC?
- How frequently do you access tweets, SMS messages, or other alerts from news feeds on your mobile device? (Asked in screener as well)

Tasks and Questions: New Hampshire Study, 10 users

Sign up to receive updates via social network, RSS, or newsletter from list of selected sites

Each user completed a task to receive updates via social networks, RSS, or a newsletter. They chose one company from a list of provided companies to receive updates from.

Choose a company or organization from the list that you're interested in receiving updates from. Find a way to receive updates from them using the web. Users started the task on a blank web page, and were asked to find

This task was given to see what types of updates users prefer to receive from companies and organizations. We selected 17 websites for this task. We chose websites that offered at least two of the three options: social networks, RSS, and newsletters.

If participants weren't comfortable using their email address or other login credentials for this task and any subsequent task, we would provide the details for them. In our study, everyone provided their own personal information during this task.

After the task, users answered the following questions in a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How confident are you that you completed the task?
- How easy or difficult was it to complete this task?
- How clear was the information on the site as you completed this task?
- How frustrating was it to complete this task?
- How trustworthy do you think this site/company is?

Users also answered interview questions after they completed the task, including:

- Did you notice any other ways to receive information from the organization? If so, why did you choose to receive information via newsletter/social network?
- What types of information do you expect to receive in newsletter/RSS/social network updates from _____?
- How often do you expect to receive newsletter/RSS/social network updates from _____?
- What did you like about the process of signing up? What didn't you like?
- Is there anything you would do to improve this process?
- [Only ask if they signed up for a newsletter] Do you have to do anything else in order to receive the information you signed up for? If so, what do you have to do?

Sign up to receive a newsletter

If participants didn't sign up for a newsletter as part of the first task (above), they were asked to do so. One out of 10 participants completed this task. (In the previous task, he chose to receive Facebook updates from Virgin America because he couldn't locate their newsletter subscription process.)

Sign up to receive emails from the same company or organization.

After the task, users answered the following questions in a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How confident are you that you completed the task?
- How easy or difficult was it to complete this task?
- How clear was the information on the site as you completed this task?
- How frustrating was it to complete this task?
- How trustworthy do you think this site/company is?

Users also answered interview questions after they completed the task, including:

- What types of information do you expect to receive in newsletter/RSS/social network updates from _____?
- How would this differ from the information you received through Facebook/Twitter/RSS?
- How often do you expect to receive newsletter/RSS/social network updates from _____?
- How would this differ from the frequency of updates sent through Facebook/Twitter/RSS?
- What did you like about the process of signing up? What didn't you like?
- Is there anything you would do to improve this process?
- How did this compare to finding a way to sign up to receive updates through Facebook/Twitter/RSS [from previous task]? Was one process easier than the other? Why?

Read latest newsletter subscribed to in previous task

We asked users to read the most recent newsletter they subscribed to in the previous task. Because the newsletter would not yet have been delivered to their individual email accounts, users logged into a dummy email account that every user accessed for this task. This inbox included editions of 42 different email newsletters from 42 different sites, including the 17 used for the subscription task.

We asked users to locate the newsletter in the inbox before opening and reading it.

Log into this email account: [we provided users with log in information for a Yahoo! mail account]

Find the latest edition of the newsletter you just signed up for but don't open it yet.

Note: Although you just signed up for the newsletter today, the latest edition may be more than one day old.

After users located the newsletter in the inbox, we asked:

- What do you think about the sender information?
- What do you think about the way the subject line is written?
- What do you expect this newsletter to contain?
- If this was in your inbox, would you open it? Why or why not?

After the above questions were asked, we gave the users the second part of the task.

Open the newsletter. Read it the way you would if you received it in your own mail. As you read the newsletter, let the facilitator know what you like or don't like about it or if you think anything is confusing or works well.

We asked about users' first impressions once they opened the newsletter. After they read through and commented on the newsletter, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How trustworthy is the company that sent this newsletter?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- What was the primary purpose of this newsletter?
- Did this newsletter meet your expectations, based on what you thought you would receive when you signed up for it? Why or why not?
- What did you like about this newsletter? What did you dislike?
- How would you describe the newsletter's style of writing?
- What did you think about the way this newsletter is written?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?
- Would you want to receive this newsletter in your own email? Why or why not?

Read another newsletter

We asked users to select another newsletter to read while they were still logged into the dummy inbox. In total, users selected an additional 10 newsletters for this task, which were available in the dummy inbox. We selected general interest newsletters as well as newsletters related to participants' occupations.

Select another newsletter from any company in this inbox. Pick the one you'd like to read the most. Find one you'd like to read, but don't open it yet.

After users selected a newsletter to read in the inbox, we asked:

- Why did you select this newsletter?
- What do you think about the sender information?
- What do you think about the way the subject line is written?

- What do you expect this newsletter to contain?
- If this was in your inbox, would you open it? Why or why not?

After the above questions were asked, we gave the users the second part of the task.

Open the newsletter. Read it the way you would if you received it in your own mail. As you read the newsletter, let the facilitator know what you like or don't like about it or if you think anything is confusing or works well.

We asked what users' first impressions once they opened the newsletter. After they read through and commented on the newsletter, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How trustworthy is the company that sent this newsletter?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- What was the primary purpose of this newsletter?
- Did this newsletter meet your expectations, based on what you thought you would receive when you signed up for it? Why or why not?
- What did you like about this newsletter? What did you dislike?
- How would you describe the newsletter's style of writing?
- What did you think about the way this newsletter is written?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?
- Would you want to receive this newsletter in your own email? Why or why not?

Sign up to receive updates via a newsletter from site of your choice

Users were asked to subscribe to newsletters from a company or organization they'd be interested in receiving updates from. If users couldn't come up with a company or organization, the facilitator prompted them by asking them to think of their preferred news provider, favorite band or musician, or favorite store.

Think of any company or organization you'd be interested in hearing from and find a way to receive information from them sent to your email. Please pick a company or organization that you do NOT already receive email from.

After the task, users answered the following questions in a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How confident are you that you completed the task?
- How easy or difficult was it to complete this task?

- How clear was the information on the site as you completed this task?
- How frustrating was it to complete this task?
- How trustworthy do you think this site/company is?

Users also answered interview questions after they completed the task, including:

- What types of information do you expect to receive in newsletter from _____?
- How often do you expect to receive newsletters from _____?
- What did you like about the process of signing up? What didn't you like?
- Is there anything you would do to improve this process?
- Do you have to do anything else in order to receive the information you signed up for? If so, what do you have to do?

Review favorite and least favorite work-related and personal newsletters

During the recruiting process, we asked users if they would be willing to check their own email account as a part of the study. We asked users to complete the following tasks for their work-related and personal newsletters.

Log in to an email account where you receive work-related/personal newsletters. Find a work-related/personal newsletter that you really enjoy or regularly read and read it like you normally would.

Find a work-related/personal newsletter that you don't enjoy or rarely read and read it like you normally would.

After they read through and commented on each newsletter, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How trustworthy is the company that sent this newsletter?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- What company was this from?
- What was the primary purpose of this newsletter?
- Do you remember signing up to receive this newsletter?
- If you don't remember/don't think you signed up, why do you think you received it?
- Do you remember how you found out about this newsletter?
- Why did you sign up to receive newsletters from this organization?
- What do you do with the information in the newsletter?
- What do you like about receiving these newsletters? What do you dislike about receiving these newsletters?
- [If they don't like newsletter] Why do you still receive this newsletter? Have you done anything to stop receiving it?

- Do you normally read newsletters from this company when you receive them? Why or why not?
- Do you normally read these newsletters on your desktop/laptop or your mobile phone? Why?
- How would you describe the newsletter's style of writing?
- What did you think about the way this newsletter is written?
- What did you dislike about this newsletter? What did you like about this newsletter?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?
- [After reviewing favorite and least favorite work-related newsletters] Which work-related newsletters are most valuable to you and why?
- [After reviewing favorite and least favorite personal newsletters] Which personal newsletters are most valuable to you and why?

Review newsletters frequently read on mobile phone

During the recruiting process, we asked users if they would be willing to check at least one of their own email accounts on their mobile device as a part of the study. We asked users to complete the following tasks using a mobile device:

- Use your mobile phone to access a work-related or personal newsletter that you frequently read on your mobile phone.
- Use your mobile phone to access a work-related or personal newsletter that you rarely or never read on your mobile phone.

After they read through and commented on the newsletters they viewed frequently and infrequently on their mobile devices, users were asked to complete a subjective questionnaire. All questions were asked on a scale of 1–7, where 1 was the most negative and 7 was the most positive:

- How useful was this newsletter?
- How informative was this newsletter?
- How well written was this newsletter?
- How well designed (look, aesthetics) was this newsletter?
- How trustworthy is the company that sent this newsletter?
- How easy was it to read this newsletter on your phone?
- Overall, how valuable was this newsletter?

Users also answered interview questions after they completed the task, including:

- What company was this from?
- What was the primary purpose of this newsletter?
- Do you remember signing up to receive this newsletter?
- If you don't remember/don't think you signed up, why do you think you received it?
- Do you remember how you found out about this newsletter?
- Why did you sign up to receive newsletters from this organization?
- What do you do with the information in the newsletter?

- What do you like about receiving these newsletters? What do you dislike about receiving these newsletters?
- [If they don't like newsletter] Why do you still receive this newsletter? Have you done anything to stop receiving it?
- Do you normally read newsletters from this company when you receive them? Why or why not?
- Do you normally read these newsletters on your desktop/laptop or your mobile phone? Why?
- How would you describe the newsletter's style of writing?
- What did you think about the way this newsletter is written?
- What did you dislike about this newsletter? What did you like about this newsletter?
- What was the most important piece of information in this newsletter?
- What, if anything, is missing from this newsletter?
- Is there anything you would do to improve this newsletter?

Users were also asked general questions about how they used email and newsletters on their mobile devices.

- How often do you check your email on a mobile device? When do you typically check your email on your phone?
- How often do you read newsletters on your mobile phone? Are there certain places/situations where you tend to read newsletters on your mobile device more frequently?
- Are there certain newsletters you always read on your mobile phone? Any that you always skip on your mobile phone? Why?
- Which newsletters are most valuable to you when you are reading them from a mobile phone and why?
- Which newsletters are least valuable to you when you are reading them from a mobile phone and why?

Post-Test Questions

After users completed all tasks, they were asked post-test questions.

Email Accounts

- How many email accounts do you have?
- Why do you have [number of email accounts] accounts/what do you use each account for?
- How do you decide which email address to sign up for a newsletter?
- How many messages do you receive a day in your primary personal account, on average? How many spam messages do you receive in that account?
- How many messages do you receive a day in your primary business account, on average? How many spam messages do you receive in that account?
- Do you read all your email messages? How do you decide which to read?

Spam/Whitelisting

- Do you use a spam filter or junk mail folder?

- Do you ever do anything special to make sure a newsletter or message doesn't go to your junk folder? If so, when? What do you do?
- Do you ever look at the messages in your spam or junk mail folder? If yes, how often?
- Do you ever report messages as spam? If yes, what prompts you to do so? How often do you do this?

Subscribing to Newsletters

- Do you receive any personalized newsletters for business/work purposes? Can you tell me about an example or show me one if you have it?
- Do you prefer HTML messages, with pictures and colors, or plain text messages? Why?
- What's the most recent work-related/personal newsletters you've subscribed and why?

B2B Newsletters

- Have you ever made a purchase/attended a seminar based on a work-related newsletter? If so, please explain.

Reading Newsletters

- Are there any newsletters that are part of your routine – any that you read at a particular time during the day?
- Do you look forward to receiving any work-related/personal newsletters? Which ones and why?
- Do you receive any newsletters that you think are very well written or very poorly written? Which ones and why? [If yes, ask participant to show me example]

Newsletter Maintenance and Organization

- Do you ever save work-related/personal newsletters? Which ones? Why? How long do you save them for?

Unsubscribing to Newsletters

- Do you ever unsubscribe from newsletters? If so, what's the last one you remember unsubscribing from? Why did you unsubscribe?

Sharing Newsletters

- Do you ever forward newsletters to others?

Newsletter Perceptions

- What are some of the benefits of receiving work-related/personal newsletters?
- What are some of the things that annoy you about receiving work-related/personal newsletters?

ABOUT USING THIS METHODOLOGY

Setting up a Dummy Inbox

In our New Hampshire study, all participants used a Yahoo! dummy email account to review newsletters during the study. Because the group account was a live mailbox — that is, it was constantly receiving new newsletter editions — it was rare for two users to see the exact same inbox. To eliminate any effect of previous users on later users, we marked all messages as unread between sessions. Also, if users deleted or moved inbox messages, we returned the messages to the inbox. In between sessions, if new messages arrived, we deleted them.

Asking Users to Provide Email Address or Other Login Credentials

For subscription tasks in our New Hampshire study, we did not give users an email address or other login credentials (Facebook, Twitter, or RSS) to use. If users felt uncomfortable subscribing with their own information, we had dummy information for them to use.

Asking Users to Save Personal and Work-Related Newsletters

A large portion of the fourth study was focused on the personal and work-related newsletters users already received. As part of the screening process, we asked users if they'd be willing to save all personal and work-related newsletters they received from the time of recruitment to their scheduled test session.

In our confirmation email and phone calls prior to the scheduled session, we reminded users to save personal and work-related newsletters. In addition, London participants were asked to save the any newsletters they received that they subscribed to as part of the study.

Accessing Users' Email Accounts

During the screening process for our New Hampshire study, we asked users if could access work-related and personal newsletters via an email account that they could access from a computer other than their own, and if they were willing to do so during the study. Specifically, we addressed this issue as follows:

1. As a part of this study, we are interested in seeing what email messages people receive in their own accounts.
2. We are interested in messages that come from companies and organizations, rather than from friends, relatives, or colleagues.
3. To help us with our research, and with your permission, we would like you to look at your email account with us during the study.
4. We will respect your privacy throughout the study, and will not use any identifying or personal information about you or your email account in our reports or presentations.
5. Will you be willing to log in to your email account as part of the study?

All participants accessed at least one email account. In our confirmation email and phone calls prior to the scheduled session, we reminded users to bring login credentials to their session (if necessary).

Accessing Users' Email Accounts on Mobile Devices

During the screening process, we asked users if they could access at least one email account that contained work-related or personal newsletters from their mobile device. We stressed the same points regarding privacy (See *Accessing Users' Email Accounts*, above).

In our confirmation email and phone calls prior to the scheduled session, we reminded users to bring their mobile device and charger with them to the study.

Compensation

For our New Hampshire sessions, users were given slightly higher monetary compensation than normal, because of the length of the study (two hours) and the use of the user's email on a computer and a mobile device.

Matching Users' Interests

For the subscription and read newsletter tasks, we chose sites and newsletters that were of general interest, including: food, news, weather, travel, entertainment, and shopping.

For the New Hampshire study, we selected additional newsletters to include based on participants' occupations.

Fifth Study: Sites, Newsletters Participants, and Methodology

ABOUT THE SITES AND NEWSLETTERS STUDIED

In the fifth study, we didn't select newsletters for users. Users evaluated only those newsletters that they signed up for and received on their own, independent of the study.

191 newsletters were included in this study, simply because the participants happened to receive these newsletters during the 5-day study period.

ABOUT PARTICIPANTS

Eight women and six men participated in the fifth study. All participants were between the ages of 20 and 50 (one was in her 20s, 10 were in their 30s, two were in their 40s, and one was 50).

All participants were employed. Their occupations included:

- Advertising Executive
- Anesthesiologist
- Business Development Manager
- Business Team Coordinator
- Childbirth Educator
- Electrical Engineer (two users)
- Pharmacist
- Real Estate Investment/Development
- Real Estate Sales
- Registered Nurse
- Sales
- Strategic Director
- TV Producer

Six participants lived and worked in the U.S., four participants lived in the U.K. and four participants lived in Australia. All participants were required to read and write in English. Users lived in the following locations:

United States (alphabetical by state):

- Rockfall, Connecticut
- Methuen, Massachusetts
- Gilford, New Hampshire
- New York, New York
- Beaverton, Oregon
- Pomball, Texas

United Kingdom (alphabetical by city):

- Guildford
- Nottingham

- Surrey

New South Wales, Australia (alphabetical by city):

- Bellevue Hill
- Bondi
- Sydney (two users)

Our study participants all received and read both personal and work-related newsletters on their mobile devices, and had to list examples of their newsletters. We tried to recruit an equal number of male and female users representing a range of ages, geographic locations, and occupations.

Participants read email on their phones for at least three months prior to the study and all checked their email on their phones several times per day.

Participants used a variety of email programs for the study, and some used different tools for personal and work email.

- Comcast (1 user)
- Gmail (4 users)
- Hotmail (5 users)
- Outlook (4 users)
- Yahoo (1 user)

All users accessed email from an iPhone. iPhones were exclusively used for this study, because users could easily take screenshots. At the time of the study, other devices, such as Androids and Blackberry phones, had a more complex process for taking screenshots. (Users needed to download a Software Development Kit in order to take a screenshot, and we didn't want to ask users to do this.)

METHODOLOGY OF THIS STUDY

In the fourth study, we asked users to sign up for email newsletters of our choosing to be read on a mobile device. We also asked them to read and evaluate newsletters that they already received on a mobile device. Though we tried to match participants' stated interests with our newsletter selections, it was not the same as looking at what users actually received on their own and eliciting their opinions about those newsletters.

To get more in-depth information in the fifth study, we determined that a diary- or questionnaire-based approach would allow us to gather information we didn't get in the previous study. In addition, doing a remote study allowed us to include a wider geographic range of participants and add an international component to the study.

Our study was conducted via email and online surveys (using Google Docs). After screening participants, we emailed them a schedule of participation, which gave them our preset schedule for contacting them. Because our users were spread out from New York to Sydney, we told users the schedule was based on dates on the U.S. East Coast. Because of the time differences, our participants in the U.K. and Australia typically received messages the day after we sent them, as they weren't checking email in the middle of the night.

We started the study with a request for users to forward the most recent newsletter they had received, along with a screenshot of that newsletter. This was done to ensure they could complete the assignment on time and were still interested in

participating in the study. We also asked users to complete an online questionnaire about their use of newsletters on their mobile devices. This was done to get more information about how they used newsletters.

For the next five business days, users forwarded any email newsletter they opened or read. They also took a screenshot of the newsletter and emailed it to the study facilitator. After reading the newsletter, they filled out a questionnaire about it.

Pilot study

We ran a pilot study with one user. We conducted the pilot study to improve our study methodology and to determine if our questionnaires and requests were clear.

Based on the pilot study, we made some small changes to the wording of the assignments (sent via email) and questions in the online surveys.

Recruiting and participation

When planning the study, we expected that some users might drop out before completing the study.

We recruited 14 users for the study, hoping to finish the study with at least 10 participants. Surprisingly, all 14 participants finished the study. (Usually, you have to plan for some drop-off in diary studies because they require a long-term commitment from the participants.)

To ensure users completed all assignments, the facilitator sent a reminder message to participants who had not yet completed the assignment after the due date for each assignment had passed. In total, we sent five reminder emails. This helped in keeping users active in the study. Also, the length of the study (9 days, 7 business days) was deliberately short so users wouldn't get burned out. The diary completion part of the study was even shorter, at 5 business days.

Sample email messages

Note: each message included extra space for answers to questions and closed with the facilitator's contact information, which is not included here. We sent messages in plain text and used symbols for emphasis in the messages.

Subject: Study schedule and pre-assignment

Thank you for agreeing to be part of Nielsen Norman Group's study of email newsletters read on iPhones. You're part of a small group of people who will be participating in this study, and we're looking forward to your participation. If at any time during the study you have any questions, please email me at xxxxx@nngroup.com

-----Your participation and schedule-----

You will receive an email on Monday, August 15 with instructions for Monday through Thursday. On Friday, August 19, you'll receive a separate email with instructions for that day.

From Monday through Thursday, you'll forward any email newsletters you open or read throughout the day on your iPhone. (I'll send instructions on how to forward a

newsletter from your phone.) You'll also add a brief note to the forwarded message about where you are when you open the message and what prompted you to open it.

You'll also send screenshots of the email newsletters you opened or read on your iPhone throughout the day. (I'll send instructions on how to take a screenshot.) Finally, you'll fill out a brief survey about the newsletters you read or open on your iPhone that day.

On Friday, you'll complete an online survey about how you typically use email newsletters on your iPhone.

On Friday, August 19, I will mail your check for \$150 as a thank you for your participation.

-----What is a newsletter?-----

We consider an email newsletter to be any email communication that you receive from an organization on a recurring basis. If you are unsure whether an email fits the definition, assume that it does.

-----How the information from the study will be used-----

Nielsen Norman Group will use this information in reports and seminars. All identifying information and any proprietary information will be removed from your screenshots and surveys prior to their inclusion in our reports or seminars.

-----Instructions for now-----

Please complete the following assignment **within the next 24 hours**.

- Forward the most recent newsletter you've received on your iPhone to xxxxx@nngroup.com.
- Send a screenshot of the most recent newsletter you've received on your iPhone to xxxxx@nngroup.com. (Screenshot instructions are below.)
- Complete an online questionnaire about your use of email newsletters on your iPhone: <URL> .

-----How do I take a screenshot of the email newsletter on my phone?-----
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1. Open the email newsletter you'd like to take a screenshot of.
2. Press and hold the "Home" button at center bottom of the iPhone, then press and release the "Sleep" button on top right of the iPhone. This causes the iPhone to "flash" white briefly.
3. Navigate to the iPhone "Photos" app. (The app icon is a sunflower.) Once the app is opened, select the "Camera Roll".
4. Select the screenshot you want to send.
5. In the lower left corner of the screen, click the "Share" icon. (The icon is a square with an arrow coming out of it.)
6. Choose the "Email Photo" button. A blank email will open.
7. Address the message to xxxxx@nngroup.com and click "Send".

Thank you for your participation. Please do not hesitate to email me with any questions or feedback you may have.

Pre-Assignment questionnaire (accessed via Google Forms)

Email usage on your mobile device

1. How often do you typically check your email on your iPhone?
 - a. Several times a day
 - i. Approximately how many times?
 - b. Once a day
 - c. Every few days
 - d. Once a week
 - e. Less than once a week
2. Are there any particular time(s) of day that you check your email using your iPhone? Or during any particular activities?
3. If so, when and why do you check your mail at those times?

Newsletters usage on your mobile device

1. How often do you read newsletters (messages from companies or organizations, not messages from friends, colleagues or family members) on your iPhone?
 - a. Several times a day
 - i. Approximately how many times?
 - b. Once a day
 - c. Every few days
 - d. Once a week
 - e. Less than once a week
2. Are there certain places/situations where you tend to read newsletters on your iPhone more frequently? Why?
4. Are there any particular time(s) of day that you tend to read newsletters using your iPhone? Or during any particular activities?
3. If so, when and why do you check your mail at those times?
4. Are there any particular email newsletters you tend to read using your

Subject: Assignment for Monday through Friday

Please complete the following activities Monday through Thursday of this week:

- If you open or read ANY email newsletter on your iPhone, forward the message to xxxxx@nngroup.com immediately after it has been read or opened. Include a short note about where you are and why you opened the message. (Forwarding instructions are below.)
- Take a screenshot of each email newsletter you opened or read and send them to xxxxx@nngroup.com. (Screenshot instructions are below.) You can choose to do this throughout the day or at the end of each day, whichever is most convenient for you.
- Complete an online questionnaire about the *each* email newsletter you opened or read on your iPhone throughout the day: www.URLtoSurvey.com. You can choose to do this throughout the day or at the end of the day, whichever is most convenient for you.
- If you read email in multiple email accounts on your iPhone, please check them all.

- If you have a large number of email newsletters in your email accounts that you read or open on your iPhone, please forward *no more than 6* per day.

-----How do I take a screenshot of the email newsletter on my phone?-----

1. Open the email newsletter you'd like to take a screenshot of.
2. Press and hold the "Home" button at center bottom of the iPhone, then press and release the "Sleep" button on top right of the iPhone. This causes the iPhone to "flash" white briefly.
3. Navigate to the iPhone "Photos" app. (The app icon is a sunflower.) Once the app is opened, select the "Camera Roll".

To send a single screenshot:

1. Select the screenshot you want to send.
2. In the lower left corner of the screen, click the "Share" icon. (The icon is a square with an arrow coming out of it.)
3. Choose the "Email Photo" button. A blank email will open.
4. Address the message to xxxxx@nngroup.com and click "Send".

To send multiple screenshots in one message:

1. In the lower left corner of the "Camera Roll" screen, select the "Share" icon. (The icon is a square with an arrow coming out of it.)
2. Select the screenshots you'd like to send. (Please note, you can only send five screenshots at one time so you may need to send more than one email.)
3. Choose the "Share" button and then the "Email" button. A blank email will open.
4. Address the message to xxxxx@nngroup.com and click "Send" button.

-----How do I forward an email newsletter from my phone?-----

1. Open the email newsletter you'd like to forward.
2. Select the "Share" icon in the menu at the bottom of the screen. (The icon is an arrow pointing to the right.)
3. Select the "Forward" button.
4. Put your cursor at the top of the message and briefly explain where you are/were when you opened or read the message and what prompted you to open or read it.
5. Address the message to xxxxx@nngroup.com and click the "Send" button.

Newsletter questionnaire, completed for each newsletter read or opened (accessed via Google Forms)

Please complete the questions below.

1. What company sent this newsletter to you?
2. Do you receive this newsletter for work-related or personal reasons?
3. Where were you when you opened and/or read it?
4. Why did you open/read this newsletter (rather than another message) at that time/in that place (rather than at another time)? Please be specific.
5. What was your main reason for opening/reading the newsletter? What did you hope to accomplish? Please be specific.

6. Did you find what you were looking for or accomplish what you wanted to, using this newsletter? Why or why not?
7. How much of the newsletter did you read (None, some, most, all)?
8. Please explain your answer to the previous question.
9. Did you click on any hyperlinks in the message?
10. If you answered yes, please indicate which links you clicked on, why you clicked on them, and what the experience was like.
11. If you didn't click on any links in the newsletter, please explain why.
12. What, if anything, did you like about the newsletter?
13. What, if anything did you dislike about the newsletter?
14. Do you normally open/read this newsletter on your iPhone (Always, usually, sometimes, rarely, never)?
15. Please explain your answer to the previous question.
16. Do you normally open/read this newsletter on your desktop or laptop (Always, usually, sometimes, occasionally, rarely, never)?
17. Please explain your answer to the previous question.
18. Do you have any other comments?
19. On a scale of 1 to 7, with 7 being very easy, how easy was it to read this newsletter on your iPhone?
20. On a scale of 1 to 7, with 7 being very well designed, how well designed was this newsletter on your iPhone?
21. On a scale of 1 to 7, with 7 being very appropriate, how appropriate was the length of this newsletter while reading it on your iPhone?
22. What is your last name?

ABOUT USING THIS METHODOLOGY

Our methodology worked well for the study. Our biggest challenge was in maintaining a relationship with 14 different users and keeping track of their individual participation in the study.

We included contact information in each communication with users and advised them to email with any questions. Fortunately, users didn't have very many questions during the study so it was not difficult to keep up with answering individual questions.

We considered using email for the surveys, but decided to use Google Docs because it would help us organize the data more efficiently. After a user had completed an online questionnaire, the responses were populated in a spreadsheet, so we could analyze the data in real time.

We maintained a spreadsheet of users' participation, but following up with individuals about their outstanding questionnaires was time consuming. To keep track of survey responses, we asked users to provide their last name as the final questions. This was compiled with the rest of the responses in Google Docs, so we could see, in real time, who had completed assignments for that day.

When users didn't respond to requests, we forwarded the message to them again after one to three days, keeping the original message and simply adding the word "REMINDER" to the subject line. This worked relatively well.

The pilot study helped us clarify the language in our study email messages and online questionnaires.

A couple of users had trouble with taking screenshots, even with instructions. One user thought that taking screenshots would harm his phone. (At the time of the study, the iPhone screen briefly flashed white when a screenshot was taken.)

In retrospect, the nine-day study (7 business days) was successful. Users were asked to do something for the study almost every day for a week, so it became an expected part of their day for that time frame. A drawback to the shorter schedule, however, was that it decreased the chances of receiving editions of monthly newsletters.

Because the study was conducted via email, we had to determine the best way to pay participants. Typically, we meet participants in person and hand them their incentive money. For this study, a check was mailed to all participants.

Sixth Study: Sites, Newsletters Participants, and Methodology

SUBSCRIPTION RESEARCH

About participants

Seven women and five men participated in the newsletter subscription study. All participants were between the ages of 25 and 40 (5 were in their 20s, 6 in their 30s, and 1 in their 40s).

Gender	Age	Country	OS	Browser	Screen Resolution
Female	25	United States	MacOSX 10.10	Chrome 56	1280x800
Female	32	United States	MacOSX 10.10	Safari 10	1366x768
Male	28	United States	Win8.1 6.3	Chrome 56	1366x768
Female	40	United States	Win7 6.1	IE 11	1366x768
Male	34	United States	MacOSX 10.11	Safari 10	1920x1200
Female	28	United States	MacOSX 10	Firefox 50	1440x900
Male	34	United States	Win10 10.0	Firefox 50	1600x900
Female	33	United States	Win10 10.0	Edge 14	1366x768
Female	27	United States	Win10 10.0	Chrome 56	1600x900
Male	28	United States	Win8.1 6.3	Chrome 56	1366x768
Female	36	United States	Win10 10.0	Chrome 55	1920x1080
Male	33	United States	MacOSX 10.10	Chrome 55	2560x1440

About the sites and newsletters studied

We asked 12 users to subscribe to newsletters from 3 different websites each. We selected a total 18 websites to use for these subscription activities across all participants. The websites and newsletters we selected featured a variety of subscription processes and varied approaches to confirmation messages.

The sites and newsletters used for the subscription, read, and unsubscribe tasks are listed in the following table:

- GoldsGym.com
- MarthaStewart.com
- Madewell.com
- OliveGarden.com
- Reddressboutique.com
- Thehenhouse.com/au
- Aaptiv.com
- AceHardware.com
- VitaminShoppe.com
- VerticalResponse.com
- Weather.com
- Asos.com
- Cinemark.com
- Purina.com
- BostonGlobe.com
- Storq.com
- SallyBeauty.com
- Delish.com

Methodology of this study

The newsletter subscription research was conducted using a web-based remote unmoderated testing platform. A set of 3-4 activities were prepared in advance asking users to complete newsletter subscriptions on preselected websites and answer related questions.

After each activity, users verbally answered a few questions about their experience. The same researcher created and evaluated all sessions, helping to ensure consistency in how the tests were run and analyzed. A list of the questions users answered during these activities is provided below:

Subscription activity follow-up questions

Following each activity users were asked a series of follow-up questions about their experience. Those questions and additional wrap-up questions answered by participants at the end of each session are listed below:

- Was there anything you liked or disliked about completing that activity?
- Was it clear when you were finished signing up?
- Did it say how often you will receive emails? Do you have any thoughts about that?
- Did it say when you will receive your first email? Do you have any thoughts about that?

Subscription wrap-up Questions

- Which subscription process do you prefer and why?

- Which subscription process do you least prefer and why?

If users received a welcome or confirmation email following subscription:

- Was there anything you liked or disliked about receiving these emails?
- If you did not receive a message from any of these sites, what do you think about that? Did you expect anything? What?
- Which email do you like the best and why?

About using this methodology

See section *About using this methodology: Subscribe and Unsubscribe* (Page 80)

UNSUBSCRIBE RESEARCH

About participants

Nine women and seven men participated in the newsletter unsubscribe study. All participants were employed and between the ages of 19 and 46 (1 was in their teens, 8 were in their 20s, 5 were in their 30s, and 2 in their 40s).

All participants reported having average web expertise. Each received at least 6 newsletters each day and were subscribed to newsletters from at least 3 different organizations. All participants were willing to be observed logging into their own email inboxes and unsubscribing from newsletters they received on their own. Detailed information about participant demographics is included in the following tables by device.

Two different recruiters were used for the mobile and desktop portion of the study.

Desktop participants

Gender	Age	Country	Income	Browser	Email Client
Female	32	Canada	\$40,000 to \$100,000	Safari	Yahoo
Male	41	United States	\$100,000 +	Chrome	Gmail
Male	24	United States	\$40,000 to \$100,000	Chrome	Hotmail
Female	29	United States	\$40,000 to \$100,000	Chrome	Gmail
Female	46	United States	\$40,000 to \$100,000	Chrome	Gmail
Female	25	Canada	\$40,000 to \$100,000	Firefox	Yahoo
Female	28	United States	\$40,000 to \$100,000	Chrome	Gmail
Male	19	United States	\$40,000 to \$100,000	Chrome	Hotmail

Mobile participants

Gender	Age	State	Country	Income	Education
Male	28	North Carolina	USA	\$60,000 - \$69,999	Undergraduate degree

Female	30	Arizona	USA	\$60,000 - \$69,999	Postgraduate degree
Male	28	Ohio	USA	\$100,000 - \$124,999	Postgraduate degree
Female	39	Wisconsin	USA	\$90,000 - \$99,999	Undergraduate degree
Male	34	Pennsylvania	USA	\$100,000 - \$124,999	Some college
Female	24	California	USA	\$50,000 - \$59,999	Undergraduate degree
Female	24	Georgia	USA	\$40,000 - \$49,999	Some college
Male	31	New York	USA	\$100,000 - \$124,999	Undergraduate degree

Methodology of this study

The newsletter unsubscribe research on desktop was conducted using a remote unmoderated test platform. A set of 3-4 activities were prepared in advance asking users to complete various newsletter subscriptions on preselected websites and answer related questions.

After each activity, users verbally answered a few questions about their experience. The same researcher created and evaluated all sessions, helping to ensure consistency in how the tests were run and analyzed. A list of the questions users answered during these activities is provided below.

Unsubscribe activity follow-up questions

Following each activity users were asked to fill out a questionnaire about their experience. Those questions and additional wrap-up questions answered by participants at the end of each session are listed below:

- Regarding the emails that you just unsubscribed from, do you know why you receive these emails?
- Do you ever read them? If not, why haven't you unsubscribed from it in the past?
- Was there anything in particular you liked or thought was helpful about the process of stopping email from this organization?
- Was there anything in particular you disliked or anything you would do to improve the process of stopping email from this organization?
- On a scale from 1-7, how confident are you that you successfully stopped email from this organization and why?
- On a scale from 1-7, how frustrating was the unsubscribe process and why?
- On a scale from 1-7, how would you rate the level of effort it took to stop email from this organization's email and why?

About using this methodology: Subscribe and Unsubscribe

This was an efficient and effective methodology for observing users as they unsubscribed from newsletters out of their own inbox. The most time-consuming part

of this type of study was watching each recording and capturing users' answers to the verbal feedback questions.

A helpful way to record and organize observations and notes for each participant and each subscribe activity was to record each activity in an Excel spreadsheet. By recording specific things while watching the videos such as the newsletter, the type of unsubscribe process, and the overall level of ease or difficulty the participant showed in completing the activity there was an organized framework for analyzing the data after the study. Other observations were also recorded; such as the tone of voice encountered, any specific usability issues encountered and specific user quotes and other provided feedback about the experience.

One of the drawbacks about this methodology is that it is not possible to probe the participant for more information during the session or following the activities. You must rely heavily on the follow-up questions and the responsiveness of the participant to get insight into what the users is thinking during the activity and their specific thoughts about each experience.

DIARY STUDY

About participants

Four women and five men participated in the newsletter diary study. All participants were employed and between the ages of 23 and 40 (4 were in their 20s, 5 were in their 30s, and 1 in their 40s).

Participants received newsletters from at least 6 different organizations regularly and reported checking their email at least 6 times a day and on multiple devices. Participants were willing to share any marketing or newsletter emails they received. Detailed information about participant demographics is included in the following tables by device.

Gender	Age	Location	Job Title
Male	27	Los Angeles, CA, USA	Purchasing Manager
Male	32	Rancho Cucamonga, CA, USA	Mental Health Worker
Female	40	Lafayette, IN, USA	Quality Rater
Male	32	Barcelona, Spain	Commercial Account Manager
Male	33	Malverne, NY, USA	Museum Director
Male	28	Cincinnati, OH, USA	Academic Advisor
Female	33	San Francisco, CA, USA	Property manager
Female	23	Oakland, CA, USA	Associate Director of Research
Female	24	North Brunswick Township, NJ,	Graduate Assistant

Methodology of this study

We designed a 10-day diary study aimed at collecting insights on a variety of different newsletters and marketing messages. We were interested in users' behaviors when it came to selecting and reading newsletters from their own inboxes,

what they found helpful and valuable from newsletters and what they found frustrating or problematic.

We conducted this study in two phases, in order to get a wide variety of feedback on different aspects of email newsletters without overloading users with work and questions in one phase.

Phases of the study

1. **Emails and Newsletters You've Opened** – The purpose of this phase was to understand what emails users were opening and why. This would help us understand the role of subject lines and senders in selecting messages from the inbox and how these influenced expectations users had for the content of the messages themselves. We also wanted to understand users' experiences with each of these messages.

Participants were asked to report at least 8 newsletters that they opened over a period of 5 days

After each reported email, participants filled out a questionnaire about that message their experiences with it

2. **Emails and Newsletters You Like and Dislike** – The purpose of this phase of the study was to understand what users found liked and found valuable from newsletters and what they disliked or did not find valuable. This information would help us understand content related needs and what users preferred from a visual design perspective.

Participants were asked to report at least 6 newsletters in a 5-day period. At least 3 newsletters they liked and 3 that they disliked.

After each reported email, participants filled out a questionnaire about that message their experiences with it

Recruiting and participation

When planning the study, we expected that some users might drop out before completing the study. We recruited 9 users for the study, hoping to finish the study with at least 8 participants. Surprisingly, we had 9 participants finish the study. (Usually, you must plan for some drop-off in diary studies because they require a long-term commitment from the participants.)

To ensure users completed all assignments, the facilitator sent reminder messages to participants periodically throughout each phase, giving them updates on their progress and motivating them to finish the requested number of emails reported for each phase.

Email Messages

- **Introduction and Welcome:**

Subject: Welcome to the Email Marketing and Newsletter Diary Study

Hello and welcome to the Email Marketing and Newsletter 10-Day Diary study! My name is [researcher name] and I will be facilitating this study. I will be providing you with all the details about how to complete the study and get paid! I will also be available for any questions you have along the way, so please don't hesitate to ask.

What to Expect:

A diary study is much like it sounds. Essentially, we ask that you use your email just as you normally would in your everyday life. However, during the 10-day period, we ask that you report your experiences with marketing emails and company newsletters by forwarding them to us and sharing your thoughts about them through a questionnaire for each email submitted. During this time frame, you will be asked to report a minimum of 14 emails. There will be 2 phases to this study. I will check in with you via email throughout the study to communicate progress or clarify any information you've provided. I may also follow-up with you via email for clarification on any information you provided following the 10-day reporting period. More detailed information to come!

The Fine Print:

To help us with our research, and with your permission, we would like information about marketing email and newsletters you receive. We are interested in messages that come from companies and organizations, rather than from friends, relatives, or colleagues. All personal, identifying, or proprietary information will be removed from your newsletters and marketing emails prior to being used in any capacity for our research publications.

Schedule:

The reporting period will run from [date period.] During the first five days, I will ask you to report emails and answer specific questions about them. During the next five days, I will ask you to forward different types of emails and ask you a new set of related questions. You have some flexibility as to when you report these so that it works with your schedule. However, we do ask that you please do not complete all of your submissions in one fell swoop. So basically, don't do it all in one day or procrastinate until the end. The purpose of doing a multi-day diary study is to get real insights about the role of these emails in your life over time, so doing it all at once is not a real-life scenario. Spread out is better.

Next Steps:

First, we need to get some business out of the way.

Tomorrow, I will be sending you a consent form through an electronic document signing service. This tells you more about what kind of data we are collecting and what we plan to do with it. Please read the consent form and provide your electronic signature. Once your signed consent form is received, I will send you the details for the first phase of the study.

I am excited to work with you throughout this study! Please reply to this email and let me know that you have received it. Also, let me know if you have any questions, and be on the lookout for the consent form tomorrow morning!

- **Phase 1: Emails and Newsletters You've Opened**

Subject: Diary Study Phase 1: Emails and Newsletters You've Opened

Hello, Thank you for signing the consent form. Now we can get started with the first phase of the diary study!

Emails You've Opened: (Phase 1 - [date period]) *Feel free to start early since you've completed your consent form!

When you open a marketing email or a newsletter from an organization, report back about your experience. In the next 5 days, report **at least 8 emails**. When you have completed 8 submissions, I will send you the details for phase 2. Then you'll get paid!

Reporting your experience:

Here's what it takes to report an email.

Forward the original email to xxxx@nngroup.com

You will get an auto reply with a link to a questionnaire about this email. Click on the link and answer the questions for **each email** you submit. This auto reply email will serve as a reminder for you to go complete the questionnaire for that email.

When it comes to filling out this questionnaire, **the sooner the better**, because it will ask you specific questions about the situation you are in and what you did with the email. However, if you are not able to fill out the questionnaire immediately, be sure to fill out the questionnaire for the reported email **at least 24 hours after you first opened it**.

This questionnaire requires you to type out your answers to certain questions, so if you forward something from your phone or tablet, you may want to complete the related questionnaire from a laptop or desktop.

Tip - If you choose to forward something and fill out the questionnaire for it later, it may be helpful to include some general comments in the email about your experience with it. This will be nice context to have when you fill out the questionnaire, and will appear in the thread with the auto reply for that message.

For example: Got this newsletter while checking email on the bus into work. Read the portion about the 2016 presidential campaign. Visited the article, but it wasn't very informative. Returned to the email and deleted it.

Important Notes:

During this study, use all email accounts that you normally do (personal and work-related). Open emails as you normally would, please do not open any emails for this study that you wouldn't normally open. Take action on anything in the email as you normally would. Please wait to report your

experience until you've completed any interaction with the organization via that email. Please do not submit more than 3 emails each day. Email reports should be spaced out over the course of the next 5 days. Be sure to submit a variety of emails. It's OK to send some that you open but then decide not to read, but please send a majority that you at least partially read

Let me know if you have questions! I'll check in as we go.

- **Phase 2 – Emails and Newsletters You Like and Dislike**

Subject: Emails and Newsletters You Like and Dislike

Thank you for completing Phase 1 of the Study. You are ready to begin Phase 2.

Emails and Newsletters You Like and Dislike: (Phase 2 – Tomorrow, [date period])

Over the next five days, as you receive marketing emails and newsletters I'd like you to think about whether you like the email or dislike the email and why?

Report to us 3 different marketing emails or newsletters that you like or find valuable and 3 that you dislike or you don't find to be valuable. If you are indifferent about the email and you do not especially like or dislike it for any reason, do not report that email.

Please do not send example of emails you like simply for coupons or sale information. We are interested in things you like aside from coupon offerings and sales. So try to consider what you like without taking into account sales and offerings.

When you have completed 6 submissions, including at least 3 likes and 3 dislikes, I will mark you as complete to Respondent.io so you can get paid!

***Note - Please do not begin reporting phase 2 emails until tomorrow, because the questionnaire link in the auto-reply will be changed as of tomorrow morning to take you to the new questionnaire for phase 2. Until then, the link will still take you to the phase 1 questionnaire.

Reporting your experience (Same as before):

Forward the original email to xxxx@nngroup.com

You will get an auto reply with a link to a different questionnaire about the next set of emails you are reporting. Click on the link and answer the questions for **each email** you submit. This auto reply email will serve as a reminder for you to go complete the questionnaire for that email.

When it comes to filling out this questionnaire, **the sooner the better**, because it will ask you specific questions about the situation you are in and what you did with the email.

However, if you are not able to fill out the questionnaire immediately, be sure to fill out the questionnaire for the reported email **at least 24 hours after you first opened it.**

This questionnaire requires you to type out your answers to certain questions, so if you forward something from your phone or tablet, you may want to complete the related questionnaire from a laptop or desktop.

Tip - If you choose to forward something and fill out the questionnaire for it later, it may be helpful to include some general comments in the email about your experience with it. This will be nice context to have when you fill out the questionnaire, and will appear in the thread with the auto reply for that message.

For example: Got this newsletter while checking email on the bus into work. Read the portion about the 2016 presidential campaign. Visited the article, but it wasn't very informative. Returned to the email and deleted it.

Remember:

- During this study, use all email accounts that you normally do (personal and work-related).
- Open emails as you normally would, please do not open any emails for this study that you wouldn't normally open.
- Take action on anything in the email as you normally would. Please wait to report your experience until you've completed any interaction with the organization via that email.
- **Please do not submit more than 2 emails each day** (One fewer than last phase). Email reports should be spaced out over the course of the next 5 days.

Email reporting questionnaires:

Phase 1 questionnaire - (accessed via Survey Monkey link)

- Your first name.
- Which email is this questionnaire in reference to?
- Who was the email from?
- What was the subject line?
- How well did the subject line of this email catch your interest and attention? (1-7 scale)
- Why or why not?
- How well did the subject line communicate what was found inside? (1-7 scale)
- Why or why not?
- Why did you choose to open this email?
- How much of it did you read? (All of it, some of it, most of it, I skimmed it at a high level, none of it)
- If you read part of it, please elaborate on what part you read and why? If you read none of it, please indicate why.
- Did you click on anything in the email that took you to the organization's website? (Yes, No)
- Why or why not?
- If you did click on something that took you to the website, how was your experience?

- Why or why not?
- How easy or difficult was it to take action on the options provided in the email?
- Was there anything in the email you liked or found helpful?
- Was there anything in the email you disliked or found confusing? If so, what was it and what advice would you give to the organization that sent it?
- How well designed (look, aesthetics) was the newsletter? (1-7 scale)
- Why or why not?
- How well did the information in the email catch your interest and attention? (1-7 scale)
- Why or why not?
- Overall, how relevant and useful was this newsletter? (1-7 scale)
- Why or why not?
- Was there anything in the email that was personalized or specific to you? If so, please explain what it was and what your feelings are about this personalization.
- We want to know more about the situation you were in when you opened this email. Where you are, what device you are on, etc. Which of the following apply? Select as many as you like. (Multi-select)
- I'm on my phone
- I'm on my work computer
- I'm on my personal computer
- I'm on my tablet
- I'm alone
- I'm in a public place
- I'm at home
- I'm at work
- I'm checking my email as part of my daily email routine
- I'm checking my email to pass the time
- I checked my email because I was notified of a new email
- I'm also using another screen at the same time (such as a computer, tablet, or TV) – explain. (Open text field)

Phase 2 questionnaire - (accessed via Survey Monkey link)

- Your first name.
- Who was the email from?
- What was the subject line?
- Please indicate whether you liked or disliked this email? (I liked it, I disliked it)
- Why exactly do you like/dislike this email?
- How well designed (look, aesthetics) was the newsletter? (1-7 Scale)
- Why or why not?
- How well did the information in the email catch your interest and attention? (1-7 scale)
- Why or why not?

- Overall, how would you rate the ease of reading this email? (1-7 Scale)
- Why or why not?
- Did you click on anything in the email that took you to the organization's website? (Yes, No)
- If you did click on something that took you to the website, how was your experience? If you didn't click on anything, why not?
- How easy or difficult was it to take action on the options provided in the email?
- Overall, how relevant or useful was this newsletter? (1-7 Scale)
- Why or why not?
- Was there anything in the email that was personalized or specific to you? If so, please explain what.
- How much did your experience with this email influence your opinion of the company? (1-7 Scale)
- Why or why not?
- What do you intend to do with future emails or newsletters like this one from this company? (I intend to continue receiving them and reading them with interest, I intend to continue receiving them, and reading them occasionally, I intend to continue receiving them, and ignoring them or deleting them, I intend to unsubscribe)
- We want to know more about the situation you were in when you opened this email. Where you are, what device you are on, etc. Which of the following apply? Select as many as you like. (Multi-select)
- I'm on my phone
- I'm on my work computer
- I'm on my personal computer
- I'm on my tablet
- I'm alone
- I'm in a public place
- I'm at home
- I'm at work
- I'm checking my email as part of my daily email routine
- I'm checking my email to pass the time
- I checked my email because I was notified of a new email
- I'm also using another screen at the same time (such as a computer, tablet, or TV) – explain.

About using this methodology

Our methodology worked well for the study. Our biggest challenge was in creating detailed and straightforward directions and steps for users to follow because this study was conducted remotely.

We included contact information in each communication with users and advised them to email with any questions. Fortunately, users didn't have very many questions during the study so it was not difficult to keep up with answering individual questions.

Survey Monkey worked well for the surveys because it would help us organize the data more efficiently. We were able to analyze survey results in the Survey Monkey dashboard and export them into a spreadsheet for analysis.

It was time consuming keeping tabs on how participants were progressing through each phase of the study and sending check-in messages letting them know how much they'd completed and how many more emails they had left to report. However users appreciated the periodic check-ins and it helped them stay committed to the study.

We set up an autoreply from our research address, so when participants forwarded their emails to this address, the autoreply would thank them for their submission and provide them with a link to the follow-up survey for that phase of the study. This worked well, as each email served as a reminder in the user's inbox to complete the survey for that submission.

Since we recruited for this study using an online recruiting tool, incentive payments were handled by the recruitment platform and we were charged one lump sum.

EYETRACKING RESEARCH

About participants

Eyetracking research was not conducted specifically for newsletter usability or the newsletter usability report, but some insights were included in this report from several related activities that were included in larger eyetracking study that was completed independently. In this study, 65 participants were recruited, all between the ages of 25 and 58.

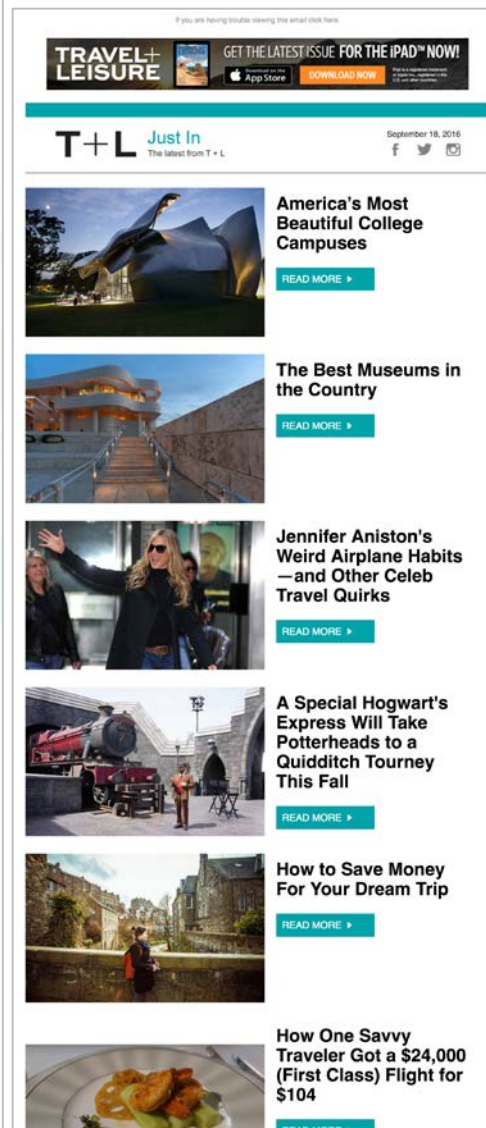
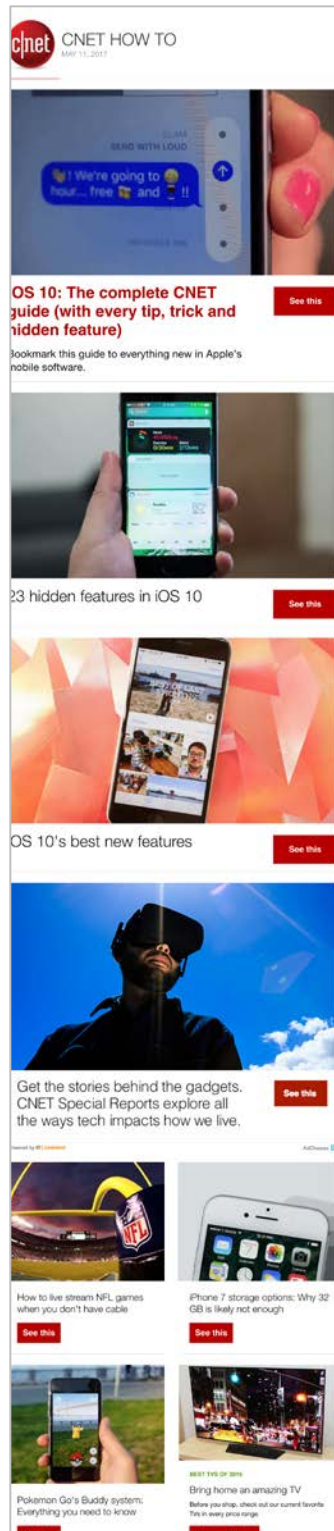
During this study, users were scheduled for a 2-hour test session where they were given a variety of activities to complete. Among those activities were several activities where users were asked to read newsletters and select newsletters out of an inbox or subscribe to newsletters on various sites. These activities were conducted on both desktop and mobile devices.

About the sites and newsletters studied

These participants were asked to complete several activities using pre-selected sites and newsletters, including:

- **Read a preselected message** - We asked users to read specific predefined message selected based on a specific content and presentations of interest. The two articles selected are listed below.
 - Cnet.com: CNET How To
 - TravelAndLeisure.com: *T+L Just In*

These two newsletters were selected because of their design, as both used variations on an image-based list. In addition, each newsletter used animated gifs in place of the images for select list items, which was of interest for eyetracking research.



The CNET *HOW To* and *T+L Just In* newsletters used image-based list styles with animated GIFs.

- **Peruse an inbox** - We asked participants to sign into an inbox with 48 preselected newsletters and read any newsletters of interest. These messages included a variety of topics and areas of interest. The main goal was to understand reading patterns and what elements garnered attention among newsletters.

<input type="checkbox"/>	Smithsonian	Only 1 Day Left just 1 day left to join Friends of the Smithsonian at a special discounted rate. Don't let this offer pass you by! Click here to	9/9/2016
<input type="checkbox"/>	Off Broadway Shoe Warehouse	LIMITED TIME! All Footwear - BOGO 50% off second pair Step into savings online & in-store Trouble viewing this email? Click here. Cc	9/8/2016
<input type="checkbox"/>	Today on CNET	Jet-black Apple iPhone 7 is here Apple's latest and greatest iPhone steps into the spotlight with better cameras, stereo speakers and a	9/7/2016
<input type="checkbox"/>	HGTV Inspiration	Which Color Palette are You Falling For? Get ideas for color lovers, browse beautiful open concept spaces, explore luxurious master suite	9/7/2016
<input type="checkbox"/>	Vetstreet	Petwire: Why Does My Pet... Make a Mess When She Eats? Having trouble viewing this email? Click Here > Is Your Dog at Risk for Hy	9/7/2016
<input type="checkbox"/>	HGTV Insider	5 Epic Flip or Flop Backyard Makeovers + 25 Perfect House Hunter Renos Catch all-new episodes of your favorite shows. Plus, view,	9/6/2016
<input type="checkbox"/>	SHAPE Beauty & Style	Treat. Yo. Self. The Easiest At-Home Facial Get SHAPE Magazine Get SHAPE Magazine Make Your Fragrance Last Dress to the Nines H	9/6/2016
<input type="checkbox"/>	People News	WATCH: Rory Feek Breaks Down Talking About Becoming a Single Father Again After Losing Wife Joey to Cancer Six months after	9/6/2016
<input type="checkbox"/>	People News	Kim Zolciak-Biermann Expresses Her Love for Husband Kroy Biermann After He's Cut from Buffalo Bills The NFL player was let go	9/3/2016
<input type="checkbox"/>	People News	Colin Kaepernick Kneels During Chargers Game in Continued National Anthem Protest as He Is Joined by More Players Teammate Eric R	9/2/2016
<input type="checkbox"/>	Billboard	Keith Urban, Dierks Bentley & Little Big Town to Cover David Bowie's 'Heroes' for Stand Up to Cancer: Exclusive Keith Urban, Dier	8/30/2016
<input type="checkbox"/>	SHAPE Beauty & Style	Get Fancy The Best At-Home Skin GadgetsGet SHAPE Magazine Get SHAPE Magazine The Best 'Poos Get Longer- Looking LashesC	
<input type="checkbox"/>	Dictionary.com	kith Word of the Day Aug. 28, 2016 kith \kith\ noun 1. acquaintances, friends, neighbors, or the like; persons living in the same general l	8/28/2016
<input type="checkbox"/>	SHAPE Beauty & Style	Why Do I Sweat So Much? Your Post-Workout Sweat GuideGet SHAPE Magazine Get SHAPE Magazine Brighteners + Tighteners Sh	8/27/2016
<input type="checkbox"/>	SHAPE Daily	Shh...This Is the Secret to Toned Arms A Secret Worth SharingThe Body ShopGet SHAPE Magazine Get SHAPE Magazine Flex Zone •1	8/27/2016
<input type="checkbox"/>	HISTORY This Day In History	1883: Krakatau explodes Aug 27THIS DAY IN HISTORY 1883Krakatau explodesThe most powerful volcanic eruption in recorded history	8/27/2016
<input type="checkbox"/>	Paper Source	25% OFF Custom Planners In stores: save up to 85% on calendars & planners - limited time! View this mailing as a webpage Locations	8/26/2016
<input type="checkbox"/>	HISTORY This Day In History	1939: First televised Major League baseball game Aug 26THIS DAY IN HISTORY 1939First televised Major League baseball gameOn th	8/26/2016
<input type="checkbox"/>	ZALORA	Discover your dark side with ZALORA's grunge luxe collection Don't miss: Extra 15% off STOREWIDE - Code inside! For web vers	8/26/2016
<input type="checkbox"/>	Walgreens Online Deals	Don't Forget! Take \$5 OFF \$30 + Free Shipping at \$35 Shop Walgreens.com Today: View Mobile View Webpage Don't forget! Enter 10	8/25/2016
<input type="checkbox"/>	HISTORY This Day In History	1835: The Great Moon Hoax Aug 25THIS DAY IN HISTORY 1835The Great Moon HoaxOn this day in 1835, the first in a series of six artic	8/25/2016
<input type="checkbox"/>	ZALORA	Love at First Sight Brand new arrivals for your fashion inspiration! For web version click here You are receiving Newsletter with your er	9/19/2016
<input type="checkbox"/>	Billboard	Jason Alden Achieves Third Straight No. 1 Album on Billboard 200 Chart Jason Alden Achieves Third Straight No. 1 Album on Billboa	9/18/2016
<input type="checkbox"/>	Betty's Daily Special	What to Make for Dinner This Week A+ After-School Snacks View as webpage What to Make for Dinner This Week As fall gets into full s	9/18/2016
<input type="checkbox"/>	American Red Cross	You are amazing You are truly a lifeline for families who don't have anywhere else to turn If you are unable to view this message correctly	9/18/2016
<input type="checkbox"/>	Angle's List	\$139 for Mold Inspection, Mold Report and 2 Air Samples You're now qualified for these savings Top Offers for Email Kansas City \$139	9/18/2016
<input type="checkbox"/>	WebMD	How Can You Tell if Your Liver Is Healthy? Do you know what it does, what can hurt it, and how to tell if it's not doing its job? We've got	9/17/2016
<input type="checkbox"/>	T+L Daily Transporter	The Best Islands in the World Chances are, you could use a beach vacation. We've got plenty of recommendations for your next vacatic	9/17/2016
<input type="checkbox"/>	Sears	✓ EARNED IT: You scored an EXTRA 20% off clothing, accessories & more! Up to 50% off fall fashions for her. Get ready for cooler w	9/17/2016
<input type="checkbox"/>	Today on CNET	Amazon is building an Alexa army With a pitch to home tech dealers in Dallas, Amazon is working to get its virtual assistant into as many h	9/16/2016
<input type="checkbox"/>	EntirelyPets	Apple Treats Sale - 10% Off Sitewide for Eat An Apple Day Use code: APPLE10 for today's promo! Place an order: 1 (800) 889-8967 Vi	9/16/2016
<input type="checkbox"/>	WebMD	Sneaky Signs of Diabetes 1 in 3 people with type 2 diabetes don't even know they have it. Could that be you? Learn to spot these subtle	9/15/2016
<input type="checkbox"/>	T+L Just In	The Best Affordable Getaways in the U.S. Affordable hotel rates, free museums, and plentiful barbecue and beer make these cities a ba	
<input type="checkbox"/>	T+L Daily Transporter	See the Most Amazing Restaurants You'll get much more than an amazing meal at this restaurants around the world. If you are having t	9/15/2016
<input type="checkbox"/>	People True Crime	Dad in Custody Fight Allegedly Kills Daughter, 6, in Front of Park Rangers, Plus Other Crime News Seth Pickering is charged with fir	9/15/2016
<input type="checkbox"/>	Walgreens	Get the Free Walgreens App Health management made easy & more The Walgreens App makes managing your health easier. View	9/15/2016
<input type="checkbox"/>	Kentucky Derby	Kentucky Derby 2017 - The Road Begins Now. This message contains graphics. If you do not see the graphics, click here to view. HOR	9/15/2016
<input type="checkbox"/>	Dictionary.com	longanimity Word of the Day Sep. 14, 2016 longanimity \long-guh-NIM-i-tee, lawng-i\ noun 1. patient endurance of hardship, injuries, or	9/14/2016
<input type="checkbox"/>	Good Morning from CNN	A new clue and a new low View this email in your browser Monday, September 12, 2016 A new MH370 clue... A new low in the campaign	9/13/2016
<input type="checkbox"/>	Warby Parker	Just today, just for you Well would you look at this View this email as a web page. Warby Parker 161 Avenue of the Americas, 6th floor,	9/12/2016
<input type="checkbox"/>	SHAPE Daily	The "I Hate Mondays" Workout You Need Today Punch Monday In the Face The Body ShopGet SHAPE Magazine Get SHAPE Magazin	9/12/2016
<input type="checkbox"/>	HiLine Coffee	FREE GIFT FOR YOU Don't forget to redeem your free gift today! Expires tonight. For consistent delivery, add hi@hilinecoffee.com to y	9/12/2016
<input type="checkbox"/>	Angle's List	\$99 Exterior Pressure Washing for your Driveway, Patio, Sidewalks and Walkway You're now qualified for these savings Top Offers fo	9/11/2016
<input type="checkbox"/>	Nespresso	Find the coffee machine that fits your style Learn more about Nespresso machines. Compare Machines View Online "Receive free sta	8/25/2016
<input type="checkbox"/>	Dictionary.com	mirabilia Word of the Day Aug. 25, 2016 mirabilia \mee-rah-BIL-i-ah\ plural noun 1. Latin. marvels; miracles. Quotes ... I shall like stil br	8/25/2016
<input type="checkbox"/>	ZALORA	The One Dress That Flatters Every Woman! Plus, find your Perfect Pair with 15% off when you buy 2 or more! For web version click i	8/25/2016
<input type="checkbox"/>	WebMD	Bone Wreckers and Bone Builders Are the bubbles in soft drinks bad for your bones? What about smoking? We get to the truth. Trouble v	8/23/2016
<input type="checkbox"/>	Paper Source	HOT DEAL \$19.95 Heat Embossing Tool TODAY ONLY! Free Shipping on any orders over \$25 with code FS25. View this mailing at	8/22/2016

An inbox was created that included a variety of newsletters that discussed a range of topics and areas of interest. Users selected which newsletters they were interested in reading from the messages that appeared in this inbox.

- **Subscribe to a newsletter** - In addition, we asked users to sign up for newsletters on 6 different sites selected based on a variety of subscription processes. The sites included in this part of the study are included below.
 - Papersource.com
 - Ducks.org
 - KentuckyDerby.com
 - Nespresso.com
 - Teavana.com
 - History.com

Methodology of this study

At the start of each session, we calibrated users to the eyetracking tool to ensure we were able to identify their eye fixations on the webpages for each activity. Users completed activities using the test monitor or their own mobile device, and the facilitator sat in the same room at another monitor, which displayed the eyetracking software.

Users were asked to complete the activities as they normally would, and they did not think out loud or talk during the activities. When users were finished with each activity, they let the facilitator know that they were finished, and the website was cleared from their screen. For more details about eyetracking research see the Methodology section from the Third Study (page 37).

About the Authors

Kim Flaherty is a User Experience Specialist with Nielsen Norman Group. She works with clients in a variety of industries and presents regularly about web-page UX design, omnichannel user experience, personas for user-centered design, and creating effective UX deliverables. Kim combines her background as a developer and education in Computer Science with her user experience expertise, particularly around complex applications, to bring well-rounded insights to her work.

Prior to joining NN/g, Flaherty worked as a User Experience Designer for Berkley Technology Services, focusing on design and usability for enterprise software solution for large property casualty insurance corporation, W.R. Berkley Corporation. Before that, she worked in a similar role for a digital advertising agency doing research and UX design for clients in a variety of industries including, food and beverage, financial services, insurance, and telecommunications. She also previously held a variety of software development roles at Principal Financial Group.

Flaherty holds a B.S. in Computer Science from Central College, and an MS in Human Computer Interaction from Iowa State University.

Amy Schade is a Director at Nielsen Norman Group. She has led research and co-authored NN/g reports on the usability of intranets, email newsletters, and site maps, as well as the ecommerce report series. She has co-authored NN/g's Intranet Design Annuals since 2010 as well as NN/g's Intranet Information Architecture report. She conducted many of the user sessions with people with low vision for the NN/g accessibility report and with older web users for NN/g's report on usability for senior citizens.

Schade works with clients large and small in industries including ecommerce, music, publishing, banking, government, telecommunications, non-profits, and education, including extensive work on corporate intranets. She has conducted worldwide user research, including longitudinal studies, remote studies, and eyetracking research, running studies in the United States, Canada, Europe, Asia, and Australia. She regularly presents tutorials on user testing, intranet usability, mobile user experience, writing for the web, and email newsletters.

Before joining NN/g, Schade worked as an information architect at arc e-Consultancy. She previously held a variety of positions in advertising and web production. She holds a master's degree from the Interactive Telecommunications Program at New York University and a BA in communications from the University of Pennsylvania.

Dr. Jakob Nielsen is a principal of Nielsen Norman Group. He is the founder of the "discount usability engineering" movement, which emphasizes fast and efficient methods for improving the quality of user interfaces. Nielsen, noted as "the world's leading expert on Web usability" by U.S. News and World Report and "the next best thing to a true time machine" by USA TODAY, is the author of the bestselling book *Designing Web Usability: The Practice of Simplicity* (2000), which has sold more than a quarter of a million copies in 22 languages. His other books include *Hypertext and Hypermedia* (1990), *Usability Engineering* (1993), *Usability Inspection Methods* (1994), *International User Interfaces* (1996), *Homepage Usability: 50 Websites Deconstructed* (2001), *Prioritizing Web Usability* (2006), *Eyetracking Web Usability* (2009), and *Mobile Usability* (2012). From 1994 to 1998, Nielsen was a Sun

Microsystems Distinguished Engineer. His previous affiliations include Bell Communications Research, the Technical University of Denmark, and the IBM User Interface Institute. He holds 79 US patents, mainly on ways of making the internet easier to use.



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- Evaluating interfaces of all shapes and sizes
- Guiding critical design decisions to improve the bottom line

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- Tested more than 2,000 different interfaces
- Observed more than 4,000 users—in person—in 18 countries and on 5 continents
- Analyzed thousands of hours of recorded user observations sessions
- Conducted countless diary studies, focus groups and remote user tests

Our collective experience will save you time... and money

Making technology easier to use is no longer a nice-to-have. Useful, usable products make money. And our expertise can help your team achieve their design goals quicker and easier than going it alone. Choosing NN/g means you benefit directly from our:

- **Finely tuned methodology:** We have an arsenal of proven tools at our disposal and know how and where to apply each one, taking the guesswork out of how to achieve the optimal design solution to meet your business goals.
- **Comprehensive body of knowledge:** We've taken the results of our decades of research and testing and distilled it down into actionable guidelines, best practices and proven methodologies. Our research library, containing more than 60 published reports, books, and an email newsletter archive dating back to 1995 is unrivaled.
- **Practical approach:** Our approach is 100% practical, useful and actionable. Whether you attend one of our Usability Week events or invite us to consult at your place of business, the training you will receive can be put into action immediately so that you can see the results.



Evidence-Based User Experience Research, Training, and Consulting

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At NN/g there is no “B Team.” When we dispatch consultants to work with you and your team, or when you attend a Usability Week course, you are learning directly from some of the best-educated and most experienced minds in the business.

- Our principals are considered pioneers in the fields of user research and interface design.
- Our researchers and consultants tackle the most recent and relevant topics in usability, from evergreen challenges such as information architecture and intranet usability to emerging trends in social media and mobile usability.

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- Prototyping
- Social UX
- User Testing
- Visual Design
- Web Usability
- Writing for the Web

Available courses and upcoming locations: <https://www.nngroup.com/training/>

In-house Training

Many of our courses can be taught at your location and customized to fit your unique offerings, methods and resources.

In-house training is ideal for:

- Large teams that want to spread user experience perspective throughout the group
- Teams working on large projects that need to kick start the creative process and head in the right direction

In-house training information: <https://www.nngroup.com/consulting/>



Evidence-Based User Experience Research, Training, and Consulting

REPORTS

NN/g has published more than 60 reports that detail thousands of evidence-based design guidelines derived from our independent research studies of websites, intranets, application, and mobile interfaces.



More than 60 reports addressing these topics:

- Agile
- Applications
- Audience Types (e.g., children, college students, seniors, people with disabilities)
- B2B Websites
- Corporate Websites
- Ecommerce
- Email
- Information Architecture
- Intranets
- Mobile & Tablet
- Non-Profit Websites
- User Testing
- Social UX
- Strategy
- Web Usability

Shop for reports here: <https://www.nngroup.com/reports>



Evidence-Based User Experience Research, Training, and Consulting

CONSULTING

The same experts who conduct our research and teach Usability Week training courses are available for custom consulting including:

- **Evaluating your website, application, intranet or mobile interface** (average cost \$38,000 USD)
- **Usability testing** (average cost \$25,000 - \$35,000 USD)
- **On-site training with your team** (average cost \$10,000 USD, plus travel per day)

Consulting details: <https://www.nngroup.com/consulting>