

Rowan University

Rowan Digital Works

Theses and Dissertations

6-30-1999

Intranets vs. printed publications as effective employee communication tools

Paula S. Hoffman
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Public Relations and Advertising Commons](#)

Recommended Citation

Hoffman, Paula S., "Intranets vs. printed publications as effective employee communication tools" (1999). *Theses and Dissertations*. 1815.
<https://rdw.rowan.edu/etd/1815>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

INTRANETS VS. PRINTED PUBLICATIONS AS EFFECTIVE
EMPLOYEE COMMUNICATION TOOLS

by Paula S. Hoffmann

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
(June 30, 1999)

Approved by _____ Professor

Date Approved June 30, 1999

ABSTRACT

Paula S. Hoffmann, Intranets Vs. Printed Publications As Effective Employee Communication Tools, 1999, Dr. Suzanne Sparks, MA Rowan University Graduate Program in Public Relations

Intranets, driven by time and cost-efficiencies, recently emerged as a major corporate communication tool. However, do employees want their company news delivered via an Intranet or do they prefer reading traditional printed publications?

This study's purpose is to determine employees' preferences and constraints concerning Intranet internal news delivery and content. These findings will guide communication managers in delivering effective Intranet content, design and programming.

This study surveyed 100 employees in a self-select method from the Philadelphia area who read company news on an Intranet for at least six months. The survey probed attitude and behavior toward reading an Intranet vs. reading printed publications. The study also tested for reader preferences/constraints concerning story content, length and graphic presentation. Demographics, including age, gender, and education, were cross-referenced with preferences/constraints. Rowan University's Communication Institute used SPSS (Statistical Packaging for the Social Sciences) software to tabulate and analyze the data.

This study found that most employees feel positive and prefer reading their Intranet over print-based publications for internal news.

This research also revealed "employee age" as a significant constraint in Intranet use. The study confirmed that employees won't read lengthy stories online and that males, more than females, prefer reading the Intranet for internal news.

MINI-ABSTRACT

Paula S. Hoffmann, Intranets Vs. Printed Publications As Effective Employee Communication Tools, 1999, Dr. Suzanne Sparks, MA Rowan University Graduate Program in Public Relations

Intranets are growing rapidly as a speedy and efficient internal communication tool. However, do employees enjoy reading an Intranet for their company news or do they prefer printed publications?

This study finds most employees enjoy and prefer reading an Intranet for company news with the exception of employees age 50 and over who prefer printed publications.

ACKNOWLEDGMENTS

To my three children who spent many nights without me so I could attend classes, go to the library and be alone to write and study. At some point, each child was too young to understand the significance of a masters degree or the meaning of a thesis.

To my friends, especially Debbie, Roe and Chuck, for their words of encouragement and understanding about the difficulty of conducting a thesis while working and caring for three children.

To my parents and sister, for helping me with my children when I needed time. Yes, I am finally finished. And no, I did not have the nervous breakdown you continuously warned about.

To my thesis advisor, Suzanne Sparks, who demonstrated patience, encouragement but most of all confidence that I could and would finish.

To my good friends and relatives who took my surveys into work so I could conduct the research necessary to complete this thesis.

Table of Contents

	<i>page</i>
Table of Charts	
Chapter 1	
Introduction.....	1
Problem Statement.....	6
Delimitations.....	7
Purpose.....	7
Hypotheses.....	8
Assumptions.....	12
Procedure.....	12
Definition of Terms.....	13
Chapter 2	
Literary Review.....	15
Important Aspects of Internal Communications.....	16
Intranet Implications on the Structure of Internal Communications.....	19
Important Findings in Electronic Reading.....	22
How Corporate Intranets Evolved.....	28
Current Uses and Future Development of Corporate Intranets.....	31
Summary.....	35
Chapter 3	
Research Methodology.....	36
Instrument Design.....	36
Survey Sample.....	37
Data Collection/Analysis Method.....	39
Chapter 4	
Survey Findings.....	40
Summary.....	49
Chapter 5	
Data Analysis.....	51
Public Relations Implications.....	56
Further Study.....	57
Summary.....	58
Bibliography.....	59
Appendix.....	63

Chapter 1

Introduction

One important aspect of corporate public relations is internal communication—how management communicates with its employees. Internal communication programs are important because they convey to employees an organization's initiatives, goals and expectations as well as its image and culture. This has a bottom-line effect. Companies with effective internal communications experience high employee morale and productivity because employees feel connected, informed and involved.

Corporate communication managers use a variety of media to communicate with employees. Traditionally, internal communicators commonly use newspapers and magazines as a primary channel. However, technology has recently changed that focus. According to trade journals and news reports, more and more communication managers are turning to the Intranet as a top internal communication tool. It appears that the growing popularity of the Internet has spilled over to America's largest corporations where Intranets—an Internet within—are being installed at a quick pace.

Published reports indicate that corporate Intranets will become as common as the desktop computer and the fax. A study of employee communications and technology conducted in 1994 by The Document Company Xerox and Cognitive Communications, LLC, predicted that by

1997 nearly half of employee communications within major corporations in the USA would involve the electronic media, principally computer networks. According to the Forester research, the majority of American companies either have an Intranet, plan to get one, or are studying the idea (qtd. in. Communication World June/July, 1996, 54).

Professional trade journals in human resources, technology and communications currently report that as companies become more global, Intranets play an increasingly important role in employee communications. Large technology companies, such as Netscape and Microsoft, report a lively demand for Intranet software and hardware. Their web sites tout hundreds of American businesses as Intranet clients. Recognizing the efficiency and dollar value of Intranets, American companies have embraced the medium as a speedy, cost-effective communication tool.

Corporate Intranets are best described as a company's own private Internet complete with division web sites, e-mail and chat rooms. Intranets facilitate many information-based tasks. According to published reports and personal interviews with corporate communication managers, use varies depending on need. Intranets are limited only by an organization's time, money and imagination. Intranets are customized and versatile; their benefits vary relative to use. According to a number of trade journal reports, today's Intranets can:

- Enable employees in different locations (time zones, continents) to work on the same project without leaving their desks.
- Allow employees to easily pool ideas and to share solutions.
- Empower employees by giving them the information necessary to work effectively and efficiently.
- Speed-up projects, improve productivity and enhance quality.

- Open the lines of communication among all employees facilitating two-way and multidirectional communication.
- Improve existing communication processes and simplify work flow.
- Present current and back issues of internal news publications, policy manuals, benefits information, annual reports or any important document or report the company wants its employees to access.

Technology advocates and communication managers describe the Intranet in trade journal reports as the top communication tool of the future.

Dave Orman, Manager of Employee Communication at ARCO, reports:

The Intranet is going to emerge in many organizations as the key means of communication. For many, it already has! There probably always will be some reasons for print, but the Intranet is the bullet train careening down our tracks. We had better learn how to help guide it or get the hell out of the way. (qtd. in. Communication World June/July, 1996, 54).

Here's an example of how quickly Intranets are taking hold in corporate America. In 1992, Intranets were virtually non-existent. By 1996, Intranets made the cover of *Business Week* and ranked number three on the top 10 list of *Fortune* magazine's technology trends (qtd. in. Communication World June/July, 1996, 54).

According to trade journal reports, human resource departments led in Intranet application in America's companies. Human resource managers use Intranets for a number of services from registering for training programs and securing vacation days to checking 401(k) balances.

Intranets enticed customer service departments also. Their advantages for customer service are apparent. Quick on-line access to customer history, product information and established problem/solution routines strengthen customer service and productivity. However, employee communication

departments, many lacking technical knowledge, became involved after Intranet applications were created and established. National Intranet expert Shel Holtz reports:

Many Intranets are evolving without the involvement of communication professionals. For their part, the communicators are often surprised to discover that an Intranet has taken root. Since they don't understand the technology — TCP/IP, routers, domains, IP addresses and so forth— they remain uninvolved in its construction, despite its relevance to employee communication (“Intranets: What’s all the excitement?” 55).

This continuing transition to technology presents vast implications for professional communicators with respect to their roles and programs. First, Intranets mean communication departments are no longer driving solo in determining *how* information is presented to employees.

Intranets force a working partnership between technology and communication departments. When an Intranet is enabled, communication departments face creating new programs and message designs. Michael Rudnick, of Cognitive Communications, an employee communications consulting firm that performs Intranet consulting, writes:

The transition from printed to digitized information is not simply a matter of feeding pages through a scanner. Simply converting print publications into on-line words won't work. That would be like sticking a newspaper up to a television camera and calling it television news. Too much stuff is thrown up there without the proper conversion to the medium (qtd. in Finney, Martha “Harness The Power” HR Magazine January 1997 71) .

Finney writes that “interactivity not readability is the key value of Intranets. In fact, Intranet users aren't really readers” (71). Electronic readers reference more than read. Understanding that distinction is essential to effective Intranet design.

There are a number of issues that public relations professionals must consider when using an Intranet to communicate with employees. "Article length" and "point of access" are two key issues. In a personal interview, Intranet consultant Michael Rudnick said:

Research on electronic reading shows that people don't read long articles on-line. They scan information on-line. Knowing the research, practitioners just don't publish lengthy articles over their Intranets. So, at present, what we have is a chicken and the egg theory going.

The issue of "access" was addressed in a speech at an IABC (International Association of Business Communicators) convention in 1997. Research shows that all employees do not have access to their company Intranet. "Months ago when these Intranets were being designed, no one was thinking about the level or points of access. In many companies, only certain departments or divisions have access to the Intranet," Rudnick said.

Only 17 percent of 250 communication managers informally surveyed at a recent IABC convention answered "yes" to total Intranet accessibility, Rudnick recalled. This means that in many companies more than half of the employees do not have Intranet access, an important issue for communication managers to address when contemplating their Intranet applications.

At Cigna, Inc., an international insurance company, informal employee feedback at the Philadelphia office indicates a "continued desire for print publications". In late 1997, Cigna employees used their Intranet to send each other E-mail, perform human resource functions and read company news. Frank Sorbello, Intranet consultant, said:

Although higher-end employees express an interest in continued Intranet developments, my immediate feeling is that we will be dragging our employees onto our Intranet, kicking and screaming.

A second study, in 1996, by Cognitive Communications LLC and The Document Company Xerox of 100 companies using Intranets found that technology departments are gaining ground in determining what is featured on internal corporate home pages, with no default changes allowed. This means that no one can alter these pages. The study found that employee communication departments manage 45 percent of home pages and technical departments manage 33 percent. This trend demands that corporate public relations practitioners keep abreast of Intranet capabilities and learn how to best use them or lose their responsibilities to technology departments.

Problem Statement

This thesis will seek an answer to the following question:

Do rank and file employees want their company news delivered in print or via their Intranet? Also are age, gender, education, and content (in terms of length, hard or soft news and graphic presentation), factors in this decision?

At this point, it is apparent that professional employee communicators need to be systematically included in the design and structure of Intranets. However, as public relations trade journals report, too often this is not the case. Instead, employee communication managers are taking a back seat to MIS (Management of Information Systems) departments who are driving the creation of corporate Intranets.

To determine the Intranet's strategic communicative role, public relations/internal communication managers must be involved in the planning phase. Employees' perspectives about the Intranet are needed to help communication managers shape and reshape Intranet programs for maximum

effect. Employee-based research is a logical first step for the relatively new field of Intranet programming.

Delimitations

Employees use Intranets for a number of informational tasks. This study, however, focused only on the Intranet's ability to effectively deliver company news to the exclusion of print publications. This study was taken solely from the employees' perspective. Although Intranets are being used internationally, this included only U.S. companies with more than 100 employees. These companies may, however, have offices overseas.

This study surveyed 100 employees from various service companies in the Philadelphia area publishing internal news via an Intranet for at least six months. Because this researcher sought data on the attitudes and behavior of rank and file employees on Intranet use, communication managers and top level managers did not participate in the survey.

Demographics included only employee age, gender, and education. Length of employment was not a factor.

This study did not include employees from technology companies. These employees, more accustomed to computer use and electronic reading, might have interfered with the reliability of the sample.

Purpose

The purpose of this study is to determine Intranet preferences and constraints and guide communication managers to engaging and effective Intranet programming. If communication managers are to gain ground in the planning and enactment of corporate Intranets, then they must demonstrate

that their input has value. The study will guide managers by measuring employees' preferences and constraints concerning the Intranet, and by determining specific programming factors including information presentation, length and type. In addition, the study will relate the findings to employee demographics including age, gender and education. This will help managers target programming to the appropriate employee audiences.

At present (1999), Intranets are not absolute in terms of communicating employee news. Because of current Intranet limitations in regards to access and readability, the complete extinction of print employee publications is unlikely at this time. However, paperless internal communication may not be far away for at least America's large, technically progressive corporations. For example, at Cigna, Inc. and Unisys, two major Philadelphia companies, it was management's cost-effective goal to become paperless that helped drive their Intranet development, according to communication consultants from those companies in personal interviews conducted in November 1997. It appears Intranets will be enacted in many companies whether employees want them or not, and employee communication managers must learn how to use them effectively.

Hypotheses

This thesis will test the following hypotheses:

Hypothesis I: When given a choice between reading company news over the Intranet or in printed publications, more employees will choose print.

Although published reports tout the popularity of the Intranet, personal interviews with several communication managers of large companies in the

Philadelphia area proved otherwise. Employees will “go kicking and screaming to the Intranet.” (Sorbello Personal interview) while management, citing economic reasons, pushes for paperless internal communication.

At Philadelphia-based SmithKline Beechum, plans to enact an Intranet were underway in 1998. However, a communication manager there said the Intranet would not replace their print publication. “Going paperless,” she said, “was unrealistic.”

Hypothesis II: Older employees, age 50 and over, will select print as their preferred medium for reading company news.

Personal interviews with communication managers indicated that younger employees were more willing to embrace the Intranet than older employees. Managers explained that electronic reading is familiar to younger employees (20's- early 30's) who used computers at school and use them regularly at home. This researcher seeks to test age and gender in the following hypotheses II through IV against commonly held beliefs that older and female employees will resist Intranet use.

Hypothesis III: Younger and many middle-aged employees under 50 will prefer the Intranet as a medium for their internal news when given a choice.

Desktop or personal computers were introduced into the American marketplace, including schools, in the mid-1980s. Today's younger employees (under age 34) learned to use computers in school and use them regularly at home. Because of this age group's knowledge and familiarity, it's logical to assume they have little or no fear factor. The Associated Press

reported in a news article (AP Online, 1998) that a study on people reading news on the Internet showed electronic readers are “disproportionately younger, better-educated and affluent.”

Further more, older employees are connected to a lifetime of print experience. Based on current research, the fear factor and the premise that old habits are difficult to break, this researcher predicts that the older the employee, the more likely he or she will prefer to read print over the Intranet.

Hypothesis IV: Women age 50 and over will prefer print over the Intranet as their medium for internal news.

The reasons cited above hold true here for women, especially older women. In addition, gender is an issue in computer use. Several educational research studies probed why fewer females than males chose computer courses offered in high school or chose computer science as a college major.

Hypothesis V: Gender will not be a factor for employees in the younger age group (under 35) when making their selection.

Because both male and females under 34 are accustomed to computers, gender in this age group should not make a difference in reading preference.

Hypothesis VI: Employees who are college educated, despite their age, will prefer the Intranet over print as their medium for internal news.

At least one communication manager identified education level as a factor determining Intranet use. He found that upper echelon employees embraced the Intranet more than rank and file employees. Also, as mentioned

above, a study reported on by the Associated Press on internet news reading showed people who are “better educated” read news on the internet.

Hypothesis VII: Employees who use the Intranet for internal news will prefer short over lengthy stories.

Research on electronic reading shows that people won't read long articles on-line. Readers scan information on-line preferring it presented in brief, layered (hyperlinked) chunks.

Hypothesis VIII: Employees who use an Intranet for reading internal news will say that engaging graphics are very important.

According to published trade journal reports and books on electronic reading, the transition from printed to digitized information is "not simply a matter of feeding pages through a scanner." Changing print publications into on-line words doesn't work.

In the book Writing for the Wired World, author Shell Holtz warns about the importance of presentation to on-line readability. He writes that more than two screens of endless print will physically upset electronic readers. He stresses the importance of hyperlinks, headlines and graphics to pull readers through electronic copy.

Hypothesis IX: In terms of content, employees prefer to receive both hard and soft news over their Intranet, but they will say timeliness is most important.

Speed is one of an Intranet's major benefits, according to employee communication managers. When important company news breaks, the

Intranet is an effective channel, obviously more timely than print. However, employees want more from their Intranet than breaking news. If the Intranet is to replace print publications, then employees will want all the news that their print publications delivered including employee and company feature stories as well.

Assumptions

It will be assumed that the sample population has a genuine desire for and opinion of the method in which their company news is delivered, and that this method matters in how they personally receive and accept these news messages.

The sample population surveyed will not be employed by the same industry or performing the same jobs. However, it will be assumed for the purposes of this study that the similarity of reading company news via the Intranet is representative of all employees despite their job, company business or point of access.

Procedure

To gain a background on the current use of corporate Intranets by communication managers, the author conducted the following formative research:

— Reviewed articles about corporate Intranets from several trade journals and magazines in public relations, human resources and business communications.

— Conducted personal interviews of communication managers where Intranets are being used and developed for internal news.

- Studied research reports by professional communicators probing the issue of the Intranet as an employee communication tool.

- Reviewed books and articles about writing and designing for electronic publishing.

Through this research, the author discovered several issues:

- Increased efficiency (cost and job performance), not internal communication, drives the creation of Intranets in America.

- MIS departments lead Intranet development.

- Communication managers lag behind other departments in their Intranet applications.

- Limited access and readability fuel resistance among managers to employ the Intranet as a sole means of employee communication.

- Some employees resist using the Intranet for reading internal news.

- Management sees the Intranet as a way to move toward the cost-saving goal of becoming paperless.

Taking these issues into consideration, this researcher chose a written survey to test employees' attitudes concerning their use of the Intranet for internal news. The survey includes questions testing an employees desire and opinion of the Intranet as a medium for internal news. Questions also measure age, education, gender and Intranet graphic presentation, story length and content as a factor in this decision.

Philadelphia area employees who accessed an Intranet for internal news for at least six months may participate in the survey. Self-selected personnel distributed the survey by asking co-workers to participate.

Definition of Terms

Internet- a world-wide computer network.

corporate Intranet- an Internet within a business, organization or corporation accessible only from within.

on-line- presented electronically over the Internet or Intranet.

internal news- news occurring within a corporation, business or organization.

web site- a specific location on the world wide web.

world wide web- a world wide computer network of information accessible through the Internet.

chat rooms- interactive locations within the Internet or an Intranet that enable two-way conversations via keyboards and monitors.

hard news- news of a serious nature, such as sales, acquisitions, or mergers

soft news- feature stories such as lifestyle/workstyle trends, social or recreational activities

shareware or groupware- software that allows groups of employees in various locations to communicate interactively through their computers.

Chapter 2

A literature review was conducted primarily through an electronic search under the following topics: Intranets, employee communication and Intranets, employee communication, and electronic reading. The electronic databases used included: Infotrac and the American Business Index (ABI) which referenced current business, communication, human resources, computer and management trade journals and publications. Other literature reviewed included professional studies, speeches and books on Intranets and employee communication. Also, Web sites for Microsoft, Netscape, IABC (International Association of Business Communicators) PRSA (Public Relations Society of America), Lawrence Ragan Communications Inc. and Cognitive Communications Inc., two national firms that specialize in employee communication, were used in the search. All research was conducted at the Rowan University Library in Glassboro, New Jersey and via a home computer.

Because corporate Intranets are relatively new, developed over the past five years, long-term studies are not available. There are a few books at this time published about Intranets, but they address the technical perspective more than the use of an Intranet for internal communication. However,

professional communication and technology journals and publications report regularly on Intranet use and development in organizations. Intranets are also addressed at conventions and seminars for professional communicators. In addition, two significant studies on the use of Intranets as an employee communication tool at 100 Fortune 100 companies were discovered. However, both studies, conducted jointly by the Xerox Corporation and Cognitive Communications, Inc. were conducted from a professional communicator's perspective—evaluating the Intranet in terms of use, cost and time-effectiveness. No published research involving more than one company as of this time, 1997-99, was found conducted from an employees' perspective.

To report the development, current use and effects of Intranets as an employee relations tool in relationship to this thesis, this literature review includes the following topics:

- The important aspects of internal communication
- The Intranet's implications on the structure of internal communications
- Important findings in electronic reading
- How corporate Intranets evolved
- Current uses and future development of corporate Intranets

Important Aspects of Internal Communication

This literature review found that internal communication plays a significant role in...

- Shaping a company's image, inside and out
- Affecting employee attitude and behavior
- Determining job satisfaction

— Affecting employee productivity

— Affecting the bottom line

According to the text This Is PR: The Realities of Public Relations, (1996) internal communication shapes an organization's image inside and out.

Collective perceptions about an organization by its publics, based on what it says and does, constitute its image. A major contributor to virtually every public's perception of an organization is the organization's employees. Wise PR practitioners focus on internal publics to keep them involved and informed, because theirs are the voices likely to be heard and believed by external publics (167).

Internal publics are popularly considered authorities, whether they are or not. Employees are a company's front line, their most credible image-maker. (169)

These authors also stress that effective internal communication drives employee behavior. Note the results reported when an organization's mission is not communicated effectively.

For employees to react to an organization's ideal, that ideal must be defined, communicated and understood. Many institutions have never tried to define theirs accurately, and the result is often a fragmented reaction to the institution, its policies and its products. (168)

In the book Managing Public Relations, authors James E. Grunig and Todd Hunt take the importance of internal communication one step further. They quote management consultants Ronald Goodman's and Richard Ruch's five year research project showing **how employees perceive top management affects job satisfaction more than anything else** (245).

Goodman and Ruch's study found that employees want management to "communicate openly" about what's going on inside the company. They warned that conventional house organs that preach "not to waste" and "use

the suggestion box” are outdated and don’t work.

“They want to know that management cares about them and that the caring is genuine. Employees want to work for organizations that practice public responsibility and that are managed progressively,” the study found (245).

Internal communication plays an important role in organizations that realize informed employees become more involved, motivated and productive. The literature shows that in these organizations internal communication tactics are key to many important management initiatives including team building and boosting employee motivation.

Many channels are available to internal communicators to drive these types of campaigns and messages. Intranets are a relatively new channel that communicators are using in their mix of face-to-face meetings, special events, print publications, and video. However, the literature shows that Intranets are becoming more and more important in the mix, and at times, are replacing print and face-to face-meetings.

The following case, as told by Russell Thomas, AT&T Intranet manager, in the Ragan Intranet Report (Feb., 1998), makes that point:

In the midst of an overall \$2.6 billion cost cutting measure, AT &T is depending on its Intranet to pick up the slack left by the slew of recently canceled employee publications. AT&T corporate communications had its budget cut by 30 percent; its 13 regional and business unit publications were killed. As a result, AT&T’s Intranet became the “gateway to employee communication.”

The InfoCenter@ AT&T (their Intranet) now includes regular news and information related specifically to the company’s various business units, most which no longer have regional print publications. Many of the photos that previously peppered the various AT&T publications are now being taken and uploaded almost simultaneously to an event occurring. For instance when new CEO Mike Armstrong gave a speech to employees in the headquarters’ cafeteria, digital photos of the event were uploaded on the site immediately after the speech.

Recently added Real Audio broadcasts are also hot. For instance, when Armstrong joined AT&T, employees could listen to his introductory press conference live via the Intranet. The broadcast translated into 50,000 people who listened as it happened and another 50,000 people who listened to the archive after the broadcast. Employees have also been able to listen to other executive meetings via the site. The online broadcasts have employees involved in ways that print publications never could. (online)

Intranet Implications on the Structure of Internal Communications

Intranets bring significant implications to the structure of an organization's communication process as well as to the role of the communication manager and employees.

Perhaps the most significant finding shows how an Intranet changes the structure of communication within an organization. According to the literature, Intranets empower employees. By allowing them to publish on the Intranet, they enter the communication process. Intranet technology opens all channels of communication within an organization, vertical, horizontal and criss-cross.

“While many companies have cultures where information-sharing is a common practice, other organizations have trouble coping with the “open environment” brought about by an Intranet,” warned Boxenbaum Grates, a public relations firm, in an online paper titled “Riding the Next Wave: Intranets and their Impact on Organizational Balance” (Internet 1998).

“As many communication professionals are learning, installing an Intranet system is about much more than finding the right technology— it can mean a massive culture change,” the firm wrote.

Intranet consultant Michael Rudnick, partner with Cognitive Communications Inc., agreed with that assessment. An Intranet enables

everyone to share ideas, seek information and become a publisher or information provider, he said. Rudnick made this statement in an interview for *Human Resources Magazine*.

Many companies that have put up Intranets don't fully appreciate the many-to-many communication model that it represents. The Intranet forces companies to let go of hierarchical politics. Because all employees have the potential to publish through the Intranet, there's no way to hide. (qtd. in Finney 69)

Intranet consultant Shel Holtz agrees also. "Intranets provide organizations with unprecedented ability to communicate, but they don't use the traditional model," Holtz writes (*Communication World* 54). Holtz stated that an Intranet empowers employees and departments to become publishers and communication facilitators. "An Intranet allows anyone in the company to tap into the entire organization's intellectual capital, rather than the limited circle of fellow employees with whom most employees have day-to-day contact," he writes (*Communication World* 55).

Michele Wolpe, corporate communication manager at Silicon Graphics, agrees too. "The fact that everyone participates provides Intranets with excitement, diversity and richness," she said in an interview with *Human Resources Magazine*. "You really want and need people to embrace it. The Intranet's strength is in its accessibility to everyone," she said (Finney 69).

Authors Gruning and Hunt point out that internal communication programs must match the organization's management structure and style. This has implications for Intranets because an Intranet's open style may not be the best fit in a closed communication system. Highly structured organizations, where decision-making is centralized, generally seek control of their environment.

Intranets flourish in more dynamic organizations, where a two-way symmetric model of communication exists. In these organizations, decision-making is decentralized, so it's important to interact with employees. In these organizations, internal communication not only seeks to inform, but helps employees evaluate and contribute to changing the organizations for which they work. Intranets, with their accessibility to all levels of an organization, fully support this model.

In his book, Intranets: The Communicator's Guide to Content, Design and Management (1996), author Shell Holtz supports Grunig's and Hunt's position.

In most cases, communicators should resist the temptation to control Intranet content. Of course, in organizations where the Intranet is a top-down publishing environment, an electronic version of what the organization already does in print, then, such control is not necessarily undesirable or inappropriate. (47)

Holtz writes that Intranets can be top-down but their nature suggests decentralization. He gives the Hewlett Packard Intranet as an example:

There is no central employee home page on HP/s Intranet. Divisions and departments create their own sites and hyperlink information to their sites as they see fit. There is no central Intranet authority and no control. It is essentially, anarchistic. In that environment, the Communications Department has established its own site, just one of many that employees can access. (47)

Hewlett-Packard is deeply committed to decentralization, the book noted. Their Intranet is unstructured to reflect the organization's management style.

In this book, Holtz suggest that the scope of the communicator's role on the Intranet be limited to structure by providing:

- Overall look and feel of the Intranet
- The site's navigation

— The policies that govern the use of the Intranet and development of new sites and other uses of the Intranet.

— “Push” based methods to distribute information to ensure that employees receive key messages.

Content, Holtz advised, is best developed by each department based on their expertise and understanding of what employees may need to know.

In the book Writing For the Wired World (1998), Holtz warns professional communicators to learn the nuances of cyberspace so that this relatively new tool can be used to advance their organization’s initiatives:

Far too much of the official organizational material that finds its way onto the World Wide Web and other online networks is produced by non-communicators who happen to have a flair for developing Web sites.

A good-looking Web site is not necessarily one that achieves measurable bottom-line-oriented results for the organization. No amount of skill with HTML will endow an individual with an understanding of excellent communication. It is, rather, incumbent upon the communicators who already produce excellent communication to incorporate the new media of cyberspace into their toolkits.(online abstract)

Important Findings in Electronic Reading

Perhaps the most important finding in electronic reading is simply that it is different than reading print. This literature review found that writing style and the design principles that make print more readable do not apply to the screen. There are many factors, both physical and psychological, that contribute to this finding. The differences are fundamental beginning with orientation and ending with how and why readers use the computer to find information. The expectation of speed and the different uses of the computer play a major role in electronic reading vs. print.

Consider this fundamental difference between paper and cyberspace. Intranet expert Shel Holtz wrote in his book Intranets: The Communicator’s

Guide to Content, Design and Management, (1996) the web is light based and we read light (screen) differently than we read paper (matter).

When you read paper, you hold the document in your hands. Since 10 point type is always 10 points on paper, you adjust the document by moving it closer to or further from your eyes. You follow the type down to the bottom of the page, then turn the page. You blink often.

When you read light, however, the size of the type varies depending on a variety of factors, such as the monitor you're using and the resolution at which the screen is set. You do not have the luxury of pulling the monitor closer to you or pushing it farther away. You have to read the material at the size it appears and force your eyes to try to accommodate the size. The text rarely is designed to fit on a "page"; rather, you will scroll continuously to the end of the document, blinking substantially less frequently than you do when reading paper. (219)

Collectively, the affect of reduced blinking, stagnant type and scrolling text can be sickening. Holtz writes, "it's not a good idea to present key messages to audiences while making your reader feel as though she or he is about to throw up" (219).

Holtz said the Web does not handle translation from paper well, and carrying over the effective elements of print design to the web just won't work. He acknowledges "associations" between the web and paper publications, such as home "pages," sites where web visits begin, or "bookmarks," sites marked for revisits. However, he calls these "associations" misleading attempts to make us feel familiar with what we are working.

The differences between print and electronic reading are fundamental, beginning with orientation. Computer screens are horizontal (landscape) while print pages are vertical (portrait). Often, the design principles used for a vertical print layout won't work effectively on a horizontal screen. This simple dimensional difference will lead to an entirely different look for an effectively-designed online publication. (220).

Holtz concludes that adjustments to the screen cause a domino effect. Orientation disturbs design as well as writing style which affects not only the roles of the reader, but the author too.

Writing For the Wired World, also written by Intranet expert Shel Holtz, addresses the differences between writing for print and writing for the computer screen.

Online technology does, in fact, represent an entirely new and different medium, as different from print as video. Imagine a video producer holding a brochure in front of a camera, slowly turning the pages one by one while the tape rolls. After she gets to the end of the booklet, she yells, "Cut! Print!" and exults that she has completed a video production of the brochure's content.

The idea is, of course, preposterous. Video presents an entirely new set of challenges and opportunities. It capitalizes on different strengths and can fail based on its unique weaknesses. It requires an entirely different way of thinking. The same is true of material produced for the new electronic media.

A variety of elements make up this new approach to preparing communication for computer-mediated delivery. Not only should communicators adopt a different approach to the writing itself, but also the very process of writing should be handled in a manner consistent with the conventions of cyberspace.

Further, the crafting of online material often needs to incorporate non-text elements as integral components of the document. In other words, crafting an online document is an activity that transcends the act of writing, but still one that remains the responsibility of the writer. (online)

Authors Daniel Anderson, Bret Benjamin and Bill Paredes-Holt (1998) also outline differences between print and electronic writing. These authors state that "electronic compositions tend to be more fragmented than print-based projects." (200). Electronic writers must pay special attention to organization by knowing how each part of the project fits into and relates to the larger message and design, and how it will all be linked together. Online writers must connect smaller pieces of information in ways that make sense and still give readers options to chose what they should read next, they explained.

Web builders are faced with a set of organizational problems that print-based writers rarely have to grapple with. For instance, Web authors need to think carefully about how to best split up their ideas. Along with (or instead of) the paragraph, the screen can become a major organizational unit.

Additionally, the links that authors create must emphasize important information about their destinations. Like transitions between paragraphs, they should be carefully composted to maintain the document's coherence.

Because most hypertexts allow readers to choose any link at any time, creating arguments that depend on a specific progression of ideas is extremely complicated. (201)

Electronic authors must also consider merging their text with multimedia, Anderson, Benjamin and Parades-Holt point out. They must be aware of how their writing interacts with sound, video and collaborative forums. And finally, web authors must be concerned with screen aesthetics such as background images, colored text and thematic icons.

This demand for visually exciting layouts forces web authors to consider how the look of their pages affects the rhetorical impact of their work. Again, a concern for the project overall design becomes essential if the author is to ensure that each of the different elements has a specific purpose which works toward the larger goals of the project. (202)

The role of an online author is further defined and distinguished from print by Dr. Steven L. Telleen, Ph.D., Director of IntraNet Solutions, Amdalh Corporation, (Internet 1996).

Authors create the information. In traditional media, authoring and structuring are intimately tied. The access paths are primarily linear, and all the related information is bound together and delivered together. If a different access path or a different combination of information is required, it frequently is more efficient to build the structure into a new document, replicating the common information, than to use external indexes to tie together pieces of different documents.

In the new world of hyperlinks, the structuring aspect of authoring will change. Several factors are driving this change. First, hyperlinks allow the user to pick and choose the order in which they want to access information. So while the author will necessarily continue to provide structure, the function of that structure will shift to helping users determine for their current need which information is valuable next, rather than attempting to determine their needs *a priori* for them. (online)

In his book, Intranets: The Communicator's Guide to Content, Design and Management (1996), author Shel Holtz points out how hyperlinks change the role of the online author and reader. A hyperlink is a computer function that connects the electronic reader to additional information on the topic at hand. The affect is similar to flipping pages in a printed publication. According to Holtz, hyperlinks are one of the tools that turn electronic reading into an interactive experience, different from the passive experience of reading off paper.

“Hyperlinking is the Web’s greatest strength, and should be used within your Web-based publications to add real value,” he advises. “Hyperlinking enhances online publications by providing links to additional background material, references, and information about authors and other contributors.” (221)

Holtz explains that hyperlinking shifts control of the flow of information from the author to the reader by allowing the reader the choice of what to read next. This, of course, means that authors must write blocks of information that can stand alone, separate from the context of the Web site of which it is a part.

Story length is another important difference between the two mediums.

The literature collectively concluded that the Web is best for publishing “information bits” while paper is most suitable for “publishing knowledge.” In both books, Holtz advised all articles be no longer than one landscaped oriented full page. “A good rule of thumb is never make readers scroll down more than a maximum of two page downs,” he said. “If your material runs longer than that, you should consider re-chunking the material and providing hyperlinks to create a page turning effect as an alternative to scrolling.” (220, *Writing for the Wired World* online abstract)

Continuous scroll downs make readers physically uncomfortable, literature on this subject revealed. Research shows readers naturally avoid long documents online. In his book Writing for the Wired World, Shel Holtz recalled his seven-year-old daughter printing out a lengthy children's story he saved for her to read online. "Even children won't read long articles on line," he said. (online)

Note that the research conducted for this thesis supports this finding as well. See Chapter 4 for specific results.

The literature collectively advises online writers to use summary writing, short paragraphs, bulleted lists, menus, tables, enticing headlines, multimedia and hyperlinks to create effective electronic reading. In summary, online information must be written and presented in brief, free-standing chunks, as opposed to the linear progression in paper communication. This presents particular problems for persuasive writers who depend on a specific order of progression to make their argument. In this instance, the fewer hyperlinks the better, allowing the author more control over the path of the reader.

As in print, exciting graphics, such as large photos, help entice readers. However, in the fast-paced world of computers, timeliness is a major consideration. Online readers expect to find information quickly, the literature on electronic reading concludes. Often, complicated graphics that take a long time to build, prompt impatient electronic readers to move on. The literature on this matter advises authors to consider the computer capabilities of the audience when designing effective electronic pages.

How Corporate Intranets Evolved

The Intranet evolved from the Internet. The literature on this topic concludes that the Intranet began as nameless systems patched together by computer professionals based on the capabilities of Internet protocols. This is why the information systems or technology departments in many organizations originally controlled their Intranet. They created it.

The literature shows that two factors drove the creation of the Intranet: One, an Intranet is relatively simple and inexpensive to create in an environment where employees' computers are already equipped with Internet access including TCP/IP (Transmission Control Protocol/Internet Protocol) and browsers, such as Netscape Navigator or Microsoft Explorer. Two, a need to access and flow information quickly and efficiently back and forth across an organization through distributed computers exists.

Intranet expert Shel Holtz wrote about the early evolution of Intranets (June/July 1996).

Unlike other system-wide communication tools, such as IBM's Lotus Notes, Intranet require neither huge investments nor specialized networking expertise. An employee in any department can decide to publish Web-based information to other employees in his or her department, all he or she needs is a computer with an IP (Internet Protocol) address that talks TCP/IP. Web server software can be obtained cheaply-- there is even free Web server software available on the Internet. If the other employees in the department have Web browsers (such as Netscape Navigator) on their computers, they can access Web pages stored on that employee's server enhanced computer.

And, so can other employees on the network from outside the department. If someone from another department thinks that's a great way to facilitate the flow and exchange of information, all he or she needs to do is ask, "How'd you do that?" Before long, an organization can find (as many organizations have) that they have an informal Intranet up and running on several (even dozens) of servers without any plan or sanction. In this case, Intranet-based communication occurs in spite of the communication department rather than because of it! (56-57)

Since the Intranet evolved from the Internet, it makes sense to first understand how the Internet was created. Steven L. Telleen, PhD., Director of IntraNet Solutions, wrote the following history of the Internet (1996).

The Internet began in the 1960s as a project of the US Department of Defense. The growing importance of computers gave rise to multiple challenges both in sharing information among diverse sites and networks and in keeping the information flow intact during potential disruptions at individual sites.

The Internet is based on a set of protocols developed to allow these distributed networks to route and pass information to each other independently, so if one site is down, the information can be routed through alternate sites to its final destination. The protocol developed for this purpose was called the Internetworking protocol or "IP" for short. When you see the acronym TCP/IP it is this same Internetworking Protocol that is being referenced in the second part of the acronym.

The IP protocol came into widespread use in the military community as a way for researchers to share their computerized information. Since the military had numerous research projects underway at universities around the country, and it provided an effective way to move information across diverse networks, the protocol quickly spread outside the defense community. It also spread into NATO research institutions and European universities. Today the IP protocol, and hence the Internet, is a ubiquitous standard World Wide. (online)

According to Telleen, it wasn't until the late 1980s when the types of files being transferred on the Internet changed from traditional data and mail files. These new files were multimedia files and they would revolutionize how computers interfaced with users. Multimedia files not only included text but pictures, sound and hyperlinks. The hyperlinks allowed users to make non-linear jumps around and inside the files. Hyperlinks even allowed users to jump to other files that include related information. By 1989, the European Particle Physics Laboratory, CERN, developed standards for transferring and serving when requested multimedia and hypertext files over the Internet. Today, the file standard is called the Hypertext Markup Language or HTML. This is a simpler version of another standard called the Standard General Markup Language or

SGML. These two standards provided the beginnings for the Internet as we use it today, Telleen wrote. “The standardized multimedia files allowed users to ultimately retrieve, open and display data from computers in various locations. It also enabled users to navigate information with a point and click interface, ending the confusion and difficulty of accessing information on distributed systems,” Telleen explained.

Telleen goes on to compare the problems faced by the Department of Defense with the problems faced by organizations that want to distribute information freely, back and forth, through many computers.

Many large enterprises today have the same distributed and heterogeneous information problems inside their organizations that the Internet and World Wide Web were designed to solve on a global basis. Additionally, many have an “Internet” backbone already in operation. And, many of these organizations have no trouble identifying real benefits that would accrue from replacing current paper processes with electronic information flow. Because the networks are internal, access and security standards can be enforced that would be impossible on a public network. (online)

Telleen supports Holtz’s assessment, noted above, that Web technology made it easy for organizations with TCP/IP to create their own Internet. Both authors acknowledge that earlier shareware applications addressed the problem of free access on distributed systems, but not without problems. Users complained the applications were not intuitive enough to integrate with other software in use, while computer experts complained of difficulty making custom integrations. With its easy interface and uniform languages, Web technology solved those problems and spurred IS (Information Systems) professionals to create an inside Internet, hence the term Intranet. Computer professionals needed only to build a firewall or an electronic barrier limiting outside access.

Author Martha I. Finney, called the arrival of the Intranet “predictable “(Jan. 1997).

Examining the progression of information technology, the development of and widespread use of e-mail, both internal and external;

the change from a bland text-based Internet to graphically lively home pages on the Web; from simple word processing applications to desktop publishing; and to the current off the shelf, inexpensive Webmaster software, Intranets are the logical next step.

Companies have gone beyond taking the corporate message to the outside world in the form of exciting external web sites. They have taken the next step: bringing the Web inside the corporate family as a primary employee communication tool. (67-68)

A number of articles touting the Intranet's benefits and positioning it as a "must have" communication tool of the 1990s appeared in the trade press and on the Internet spurring its popularity and growth. Netscape and Microsoft pushed their Intranet software in advertised endorsements on their websites and at least two national communications firms (Ragan Communications, Inc. and Cognitive Communications, Inc.) launched aggressive Intranet marketing campaigns. Leaders of those firms emerged as Intranet experts in news articles, books, seminars and conferences aimed directly at communication and human resource professionals. Presently, 1999, the literature collectively shows that Intranets have evolved into important and powerful communication tools that go beyond cost and time efficiency. Intranets, with their power to decentralize the decision-making process, have demonstrated the capability to change the very structure of organizations.

Current Uses and Future Development of Corporate Intranets

As outlined in Chapter One of this thesis, today's Intranets perform internal communication tasks effectively and efficiently; hence their rapid growth among America's top corporations and organizations.

An informal telephone sweep from late 1997/1998 for this thesis of large corporations in and around Philadelphia, including Cigna, Uniysis, PECO Energy, Sun Oil, SmithKline Beechum, Blue Cross/Blue Shield, and Shared Medical Services, found that all communicated internally with

employees electronically. Every company used e-mail, and those companies that did not have an Intranet were in the process of building one. Those that had an Intranet were expanding. Unisys, an international technology company, had the most advanced Intranet, and was very close to becoming paperless.

Collectively, the literature shows today's Intranet uses generally include: E-mail; human resource transactions and training; document archives; research; sales, marketing and customer service support; crisis and issues management; employee chat; work groups; and top-down distribute and print communication such as newsletters, zines (online magazines), policy handbooks, memos, etc.

A brochure for the Third Annual Intranets and Corporate Communications Conference, sponsored by Ragan Communications, Inc., held December, 1998, gives a good idea how today's Intranets are being used. The brochure cover reads like this.

For the first time- you'll learn how the Intranet can:

- Get the CEO and employees to discuss the bottom line
- Rally the workforce around new business initiatives
- Allow employees to take charge of their professional development
- Turn communicators into their organization's chief knowledge officers
- Help teams and multiple departments collaborate like never before
- Keep long-distance workers close to the company's pulse
- Gather intelligence on your competitors-and deliver it to employees

Plus you'll discover how to:

- Measure your Intranet's worth - so you can defend it at the next board meeting
- Promote your Intranet without irritating your audience

- Get employees to look forward to your online publication
- Deliver the Intranet to your employees using “push” technology
- Turn your Intranet launch into an anticipated event
- Prepare employees for the end of their print newsletter- and build support for its online successor.

Inside, the brochure touts the Intranet’s capabilities and use:

- Boost morale and productivity by adding online forums to your Intranet
- Use the Intranet to rally the workforce around a new business initiative
- How an Intranet can keep a scattered workforce in the loop
- Launch an online training program that motivates employees to learn.

The literature shows that an Intranet’s use is driven and limited only by its management’s objectives. Future development is boundaryless. For example, this ad appeared on a website for the Intranet consulting firm, Westportal, of San Francisco, Ca.:

Intranets offer powerful, cost-effective ways to disseminate fluctuating information. These Web-based communication tools can link offices in multiple sites or multiple cities, and allow you to share everything from corporate policy manuals to billing information, all online. No typesetting, printing, distribution and mailing charges. Very low maintenance costs and overhead.

The ad goes on to push the Intranet’s sales, marketing customer service capabilities including product information, pricing charts, sales leads, information on competitors, customer wins, sales analysis, calendars, sales forecasts, and online training materials. It also touts its finance applications, human resources applications and training applications.

The literature shows that because video and audio components are becoming easier and less costly to apply, Intranet use for training and research is expected to increase. This multimedia technology makes virtual online focus groups possible

with participants from various locations as well as 24 hour, multi-location staff training.

Although the Intranet extends into many areas of internal communication, a relatively new term-- Extranets-- has surfaced as the next step in use and development. Extranets are Intranets linked together to access an organization's external audiences such as sister companies, customers or vendors. So everyone that is either employed or doing business with the company is networked. Ragan Communications, Inc. and many technology firms like it, are now marketing Extranets through Web advertising, trade publications, conferences, and seminars.

In an online article entitled "The Technology of Tomorrow Today!," (1999) Harvard Business School Professor Richard L. Nolan cites giant hardware and software manufacturer Cisco Systems, of San Francisco, Ca., as a cutting-edge example of applying Intranet/Extranet technology to redefine their operations and advance their business objectives. Nolan said that Cisco represents step number one-- knowing what's possible.

Using a network with completely open standards that's fully web-enabled, they do all their design and testing, and train their manufacturers. They deliver software over the Intranet, get feedback from customers, download software 'patches.' They monitor product quality, and make changes as necessary. High-tech, fast-moving companies like Cisco Systems are the front-runners. They represent where other companies might be five to ten years from now. (online)

Another online article by CNET News.Com (1996) supported Nolan's assessment.

The Intranet market is supposed to grow to \$20 billion by the turn of the century. That being the case, people figure that if they add another slash to the equation (Internet/Intranet), it could be even bigger. So the new term being bandied about is "Extranet." Extranets, or Intranets, linked together through a wide area network, may very well be the "Next Big Thing" in corporate use of Internet technology. (online)

Literature Summary

The literature concludes that Intranets are an important employee communication tool capable of affecting an organization's bottom line in many ways. Intranets move information through the many layers of an organization faster and less expensively than traditional methods. By providing multidirectional communication, Intranets enable employees to connect to management. They feel empowered and productivity increases as well as morale. Intranets change an organization's entire communication process and how an organization is structured. In addition to the many work-related tasks Intranets can perform, they will make their most important contribution to organizations that want to decentralize their decision-making process.

Because Intranets are gaining importance, professional public relations managers need to know how to use and manage them effectively, as well as entice users. This researcher aims to survey current Intranet users to find out their preferences and constraints concerning content and presentation, and their attitudes on electronic reading versus print-based publications. This research will aid in targeting appropriate Intranet audiences and shaping effective Intranet content.

Chapter 3

Methodology

A study of corporate Intranets in America was conducted by searching electronic data bases and conducting personal interviews. Using the key search words "Intranet and employee communication," the database Infotrac ABI Inform accessed all professional periodicals, abstracts, speeches and reports. Other search engines including Excite, Yahoo and Lycos were also accessed. Specific web sites were also utilized in the search, such as Microsoft.com, Netscape.com, PRSA.com, IABC.com, Ragan Communications.com and Amazon.com.

After reviewing this information, telephone interviews with Philadelphia area communication managers were conducted (1997-1998). Managers at Unisys, Sun Oil, Cigna, and SmithKline Beechum discussed the status of their Intranets and their concerns about Intranet development and use.

Instrument Design

Based on information collected from the electronic searches and from telephone interviews, nine hypotheses were formulated. A 10-question survey was designed to yield information to support or disprove each hypothesis.

Question types included: Likert scale; closed-ended and demographics. Demographic data needed for this study included age, gender, and education level. The survey asked respondents to select an age group divided according to advertising industry standards of 35 years and under, 36 to 49 and 50 and over. From this data, the sample was defined for the purpose of this study as young, middle-aged or older employees. In addition, the survey asked respondents to check a male or female gender box and check the level of education acquired— high school, college 1-4 years, and graduate school.

Questions focused on preferences over print, story content and length. The survey also measured the importance of graphic presentation to Intranet readers.

Survey Sample

The sample was drawn from the area in and around Philadelphia known as the Delaware Valley. This included companies in Philadelphia, the Philadelphia suburbs and Southern New Jersey. Respondent identity was not revealed. The sample included only employees in service industries.

One hundred employees of the following companies participated in the survey:

- Philadelphia Independence Blue Cross/ Blue Shield (28) 2/98, 3/99
- PECO Energy (22) 2/98

- Jefferson Hospital, nurses (13) 4/98
- Shared Medical Services (17) 3/99
- Cigna (20) 3/98

Fifty eight males and 42 females responded. Participants included 27 high school graduates. The remaining participants attended at least one year of college through graduate school.

Respondents' ages varied also. The majority, 60 percent, were age 36-49. Twenty-one percent were 35 and under. Eighteen percent were over 50 years-old. Only one employee didn't respond to the age question.

Almost 60 percent of those surveyed worked between five and eight hours per day at a computer. The remaining respondents worked under four hours a day at a computer. Only five respondents didn't use computers during their workday.

Data Collection Method

The surveys were distributed in a self-select method from February 1998 through March 1999 to rank and file employees of companies and organizations in and around Philadelphia who have used an Intranet for internal news for a minimum of six months. Six months was determined by the author as ample time to develop valid opinions and attitudes on the subject. Participants were asked by a fellow employee to fill out the survey. The surveys were distributed by employees chosen by this researcher because they worked in companies who used Intranets for employee news.

Cigna, Inc. employees filed their surveys through their Intranet. Results were e-mailed to Rowan University. Employees at Shared Medical Services filed their surveys electronically also, but they were printed and mailed to the researcher's home. Respondents from the remaining

companies filed their surveys by hand and returned them in-person to the researcher.

Data Analysis Method

One hundred completed surveys were analyzed in a series of tests conducted by Rowan University's Communication Institute. Results were tabulated by Statistical Package for the Social Sciences (SPSS) software. The researcher conducted three variable, cross-reference tests by hand. A straight reporting of whether or not employees preferred to use the Intranet for internal news and their preferences for story length, story type, and the importance of graphic presentation was determined. Then, this data was cross-referenced with demographics in terms of age, gender and education level. This data is presented in tables and bar charts in the following chapter.

Chapter 4

Survey Findings

One hundred employees participated in the research by filling out the survey. Because of various office locations, participants from Shared Medical Services and Cigna completed their surveys on-line via their Intranets. The remaining participants filed by hand. The good mix of respondent demographics, including age, gender and education, represented an average workforce.

Hypothesis I: When given a choice between reading company news on an Intranet or print-based publications, employees on the whole will chose print.

When given a choice between reading the Intranet or reading print - based publications, 63 percent of the employees surveyed chose the Intranet, while only 37 percent chose print.

Seventy-nine percent reported feeling “positive” and “very positive” about reading company news on their Intranet. Only six percent answered negatively to reading company news on an Intranet, while 15 percent reported they had no opinion on the issue.

The research did not support this hypothesis. Responses to survey questions probing employees' attitudes and preferences showed that not only did employees like using the Intranet to read their internal news, but they preferred it over print.

Table 1

Q1: Feelings on Intranet use

Value Label	Frequency	Percent
Very Positive	21	21
Positive	58	58
No Opinion	15	15
Somewhat Neg.	5	5
Very Negative	1	1

Table 2

Q3: Preferences for Use, Intranet vs. Print-Based Publications

Value Label	Frequency	Percent
Intranet	63	63
Print	37	37

Hypothesis II: Employees age 50 and over will select print as their preferred medium for reading company news.

. The survey showed that 55 percent of employees over age 50 preferred reading their internal news in print-based publications rather than the Intranet. Forty-four percent preferred the Intranet. The research supported this hypothesis. No open-ended questions were asked at this time to probe the reasons for this attitude.

Hypothesis III: Employees under age 50 will select the Intranet as their preferred medium for reading company news.

The research found this hypothesis true. The majority of respondents in the age groups 35-under and 36-49 preferred the Intranet. However, a pattern of regression between age groups was detected. Research showed support for the Intranet decreased by 11 percent in the 36-49 age group.

Seventy-six percent in the 35-under age group preferred the Intranet, while only 65 percent of employees aged 36-49 preferred the Intranet. This implies that more younger employees prefer the Intranet than middle-aged employees.

Table 3

Q3 and Q7: Reading Preference Cross-referenced With Age

Age	Intranet	Print
35 and Under	76%	24%
36 - 49	65%	35%
Over 50	44%	56%
No Response	0	0

This chart demonstrates Intranet preference decreases as employees age. At the same time, print preference increases among older employees.

Hypothesis IV: Women employees age 50 and over will prefer print over the Intranet as their medium for internal news.

Survey results supported this hypothesis. Cross-references of age, gender and reading preference showed 60 percent of women employees over age 50 prefer print-based publications for reading internal news. Forty percent preferred the Intranet.

Table 4

Preference For Intranet vs. Print for Women Over 50

Value label	Intranet	Print
Women + 50	40%	60%

Hypothesis V: Gender will not be a factor for employees in the younger (35-under) and middle-aged (36-49) groups when deciding print or Intranet preference.

Survey results did not fully support this hypothesis. The research found that the majority of both male and female employees in both younger and mid-aged groups preferred using the Intranet. However, gender was somewhat of a factor, because a greater percentage of males preferred the Intranet in both age groups.

Eighty-seven percent of males under age 35 said they preferred the Intranet over print-based publications. However, only 69 percent of females in this same age group preferred the Intranet over print.

In the middle-aged group, 83 percent of males preferred the Intranet over print. However, only 54 percent of females in this group preferred the Intranet over print.

This finding is significant because it implies that more younger females prefer the Intranet than middle-aged females. This finding further

supports the connection between age and use preference. This research finds that age is the dominant factor determining preference.

Table 5

Preferences for Intranet vs. print for male, female 35-under, 36-49

Preference	Male, 35	Female, 35	Male, 36-49	Female, 36-49
Intranet	87%	69%	83%	54%
Print	13%	31%	17%	46%

This table shows that more males than females prefer the Intranet over print in each age group.

Hypothesis VI: Employees who are college educated, despite their age, will prefer the Intranet over print as their medium for internal news.

The research did not support this hypothesis. Education does not appear to be a factor in determining Intranet or print preference. The survey revealed that high school and college graduates equally enjoy reading news on the Intranet. However, a lower percentage of graduate students, almost half, preferred print.

The research showed that 70 percent of high school graduates who answered the survey preferred using the Intranet. Seventy two percent of college graduates preferred the Intranet as well. Of the post-college

education employees who responded, Intranet preference dropped to 57 percent. A check of their age showed that the post-college employees were either middle-aged or over 50 years old. This finding is significant because it implies that education does not determine reading preference. However, this finding supports age as a dominant factor in determining preference.

Hypothesis VII: Employees who use the Intranet for internal news prefer short over lengthy stories.

The research supported this hypothesis. Like the Internet, the Intranet is not the place for lengthy, in-depth stories, the survey showed. Sixty-three percent answered “no” to reading a long involved story on their Intranet. When asked if they would read the same lengthy story in print, 45 percent answered “yes.”

This finding is telling. It advises public relations professionals to reserve lengthy stories for print-based publications. Intranet writing, it reveals, must be brief or in summary form.

Table 6

Q4A, Q4B: Reading a lengthy, in-depth story on the Intranet

Value Label	Intranet	Print
Yes	37	45
No	63	22
No Response		33

Hypothesis VIII: Employees who use an Intranet for reading internal news will say that engaging graphics are very important.

The research did not fully support this hypothesis. The survey showed that most employees consider graphics as “somewhat important” to Intranet readability. Results were almost split, 52 percent to 48 percent, on the importance of graphic design to the Intranet. Only 14 percent answered that graphic design is “very important” to Intranet readability. Thirty-eight percent answered “important,” while 33 percent said graphic design “didn’t matter” to them.

Twelve percent said graphics were “not very important” and only three percent said it was “not at all important.” This finding indicates that 15 percent of employees are not very concerned about graphics when reading the Intranet. However, 52 percent are somewhat concerned.

Table 7

Q5: Importance of graphic design to Intranet readers

Value Label	Frequency	Percent
Very Imp.	14	14
Important	38	38
Doesn't Matter	33	33
Not Very Imp.	12	12
Not At All Imp.	3	3

Hypothesis IX: In terms of content, employees prefer hard and soft news over their Intranet, but timely news is most important.

The research did not fully support this hypothesis. Results showed a preference for hard news over soft. However, it should be noted that hard

news stories are always timely. Stories about job information, company plans, new contracts, plant openings, personnel changes, policies and benefits scored the highest on the survey. Personal stories on employees and the company's community involvement scored lower.

Table 8

Q6A to K: Story types preferred On the Intranet

Value Label	Frequency	Percent
Job Infor.	75	75
Co. Openings	71	71
Co. Plans	66	66
Benefits	61	61
New Projects	57	57
Promotions...	56	56
Policy	48	48
Profit/Loss	43	43
Employee Per.	33	33
Community Se	32	32
Social News	29	29

Other Important Findings:

Employees liked using the Intranet most for its "convenience," the survey showed. Fifty-two percent chose "convenience" as what they liked most about using an Intranet. Twenty-nine percent said they liked it because it is "paperless," while 18 percent said they liked using the Intranet because it "saves time."

Employees identified in the survey what they liked most and least about using their Intranet for internal news. The selections, shown in table 9 below, were identified in trade journal reports as pro and con issues

concerning Intranet development. In interviews, managers named the “paperless” and “time-saving” attributes of the Intranet as major, cost-effective reasons for corporate Intranet development.

Contrary to public relations managers’ concerns voiced in interviews and published reports, only 15 percent of the employees disliked the “lack of touch” about using the Intranet. Thirteen percent said they didn’t like the fact that you “couldn’t carry the Intranet out of the office.”

Table 9

Q2A: What employees like most and least about their Intranet

Value Label	Frequency	Percent
Convenience	52	52
Paperless	29	29
Time-saving	18	18
Lacks Touch	15	15
No Take Home	13	13
Limited Access	2	2

Access was identified by communication managers in trade journal reports and personal interviews as a major concern in Intranet development. Survey results showed their concern was well placed. Of the 100 respondents, only five didn’t use a computer during their work day. However, four of those five preferred reading print over the Intranet. Further probes found that employees who spent even as little as one hour a day on a computer preferred the Intranet over print. This proves that the fear factor concerning computer use is significant in determining preference.

Table 10**Q10: Intranet preference by computer access**

Value Label	Frequency	Percent
No Hours	5	5
1-2 hrs./day	16	16
3-4 hrs./day	20	20
5-6 hrs./day	30	30
7/8 hrs./day	28	28
No Response	1	1

Summary

The findings were significant concerning employees' Intranet preferences and readability. Contrary to this researcher's hypothesis, employees generally like using the Intranet and prefer it over print. The research found that employees like the "convenience" of the Intranet most. They also enjoy its "paperless" and "time-saving" aspects. The "lack of touch" constrained few employees.

Age proved the most significant factor in determining Intranet preference. Education is not a factor, findings implied. The research showed younger employees, educated on computers, embrace the Intranet. This held true for both high school or college graduates. Older employees, despite their level of education, prefer print over the Intranet.

Lengthy, in-depth stories are a major constraint. Employees will not read long, complicated stories on their Intranet. This holds true for Internet reading as well, as indicated in the literature review.

Graphic presentation didn't play as important of a role as this researcher predicted. Most employees were only "somewhat" concerned about Intranet graphics. However, this finding may be muted by the fact that all respondents interface with decent graphics. A test using poor graphics may be more telling.

Concerning Intranet content, employees preferred hard news over feature stories. The research showed employees liked stories about new contracts, job information or company plans more than stories on employees off the job or the company's community service involvement.

Finally, access to computers played a significant role in preference as well. This research indicates that workers who use computers on the job prefer reading the Intranet. Eighty percent of workers who spent even as a little as one hour a day at a computer preferred using the Intranet over print. On the contrary, 80 percent of those who did not use computers at all during work preferred print.

Chapter 5

Data Analysis

Hypothesis I: When given a choice between reading company news on an Intranet or in printed publications, employees on the whole will chose print.

Survey results did not support this hypothesis. Surprisingly, employees enjoyed the convenience and speed of using an Intranet more than they liked reading print-based publications.

Although communication managers voiced concern over “not being able to take the Intranet out of the office,” and the computer screen’s “lack of touch,” these proved minor constraints for employees.

This implies that more employees feel the speed and ease of using the Intranet is more important to them than touching the pages and carrying the publication away from their desks.

This finding is important because it supports the prediction cited in chapters one and two that the Intranet is an important communication tool of the future.

Hypothesis II: Employees age 50 and over will select print as their preferred medium for reading company news.

Survey results supported this hypothesis. As expected, the research showed that the majority of older employees prefer to read their internal news in print. This finding supports generally-held knowledge that older adults fear using computers. Adult computer teachers report that often senior citizens appear apprehensive about using computers for fear of breaking them. Older seniors report some physical discomfort at the computer as well. Reading from a back-lit computer monitor strains the eyes and sitting for lengthy periods at the keyboard aggravates tender backs and neck muscles. Finally, it's important to note that electronic reading breaks a life-long habit of reading print.

This finding is important to communication managers because it suggests that older employees need special training and motivation to entice them onto the Intranet. It also suggests that the Intranet may not be the best or only place for retirement news or certain health care benefits, or programs targeted for employees over age 50.

Hypothesis III: Employees under age 50 will select the Intranet as their preferred medium for reading company news.

As expected, survey results supported this hypothesis. The younger age group, under 35, are accustomed to using computers. Elementary schools, high schools and colleges used desktop computers since the mid 80's. At that time, the youngest of these employees were just teenagers and the oldest were only 21.

Interestingly, a pattern of regression between younger employees, under age 35, and middle age employees, ages 36-49, was detected. Results showed support for the Intranet dwindled 11 percent between these two age groups. These findings show that younger employees prefer the Intranet

more than middle-aged employees. This implies Intranet preference dwindles with increasing age. This is a significant finding for communication managers when targeting their Intranet audiences and programming. See Table 5.

Hypothesis IV: Women employees age 50 and over will prefer print over the Intranet as their medium for internal news.

Survey results supported this hypothesis. Cross-references of age, gender and reading preference showed the majority of older women, 60 percent, prefer print. This finding further supports the implications cited above.

Hypothesis V: Gender will not be a factor for employees in the (18-34) younger and (35-39) middle age group when deciding print or Intranet preference.

Survey results did not support this hypothesis entirely. In the younger age group, the majority of both male and female employees preferred using the Intranet. However, in the middle age group, gender was a factor. More males preferred the Intranet than females.

Hypothesis VI: Employees who are college educated, despite their age, will prefer the Intranet over print as their medium for internal news.

Survey results did not support this hypothesis. Responses to education cross-referenced with reading preferences showed no distinctions. Of the high school graduates who responded to the survey, 70

percent favored using the Intranet. Of the college graduates who responded, 72 percent favored using the Intranet. Surprisingly, education was not a factor in determining reading preference. This implies that Intranet readers need not be scholarly or formally-educated employees. For communication managers, this means that low level or informally trained employees make a good audience for the Intranet.

In addition, of the post-college educated employees who responded, Intranet preference decreased to 57 percent. A further check of those post-college educated respondents who preferred print, showed they were in the older employee age group. This finding indicates that age, more than education, affects reader preference.

Hypothesis VII: Employees who use the Intranet for internal news prefer short over lengthy stories.

Survey results supported this hypothesis. Results of question four probing story length clearly shows the majority (63 percent) answered “no” to reading a lengthy, in-depth story over their Intranet. See Table 6 which illustrates survey questions 4a and 4b. However, 71 percent of those who answered “no,” answered “yes” to reading that same lengthy article in a printed format.

This finding supports published data on electronic reading that warns against using lengthy, online text. As supported by this study, speed is the most important reason why people use a computer to read and access information. This clearly implies that if it takes too long to read a story on the computer, people won’t read it. This tells communication managers to place complicated stories that need in-depth, lengthy explanations in print. For the most effect, save the executive summaries for the Intranet.

Hypothesis VIII: Employees who use an Intranet for reading internal news will say that engaging graphics are very important.

Survey results did not fully support this hypothesis. Results were almost split 52-48 on importance of graphic design. Only 14 percent selected “very important” as their feelings about Intranet page design. See Table 5.

Electronic writers found that it’s effective to organize text in short chunks that progress easily and logically through a message or story. Literature on the subject indicates the more bells and whistles, the more enticing to viewers. However, this finding means that Intranet graphics are only important to slightly over half of viewers. Based on published reports, this researcher thought the survey would more strongly support this hypothesis. Note that results of this probe can be nullified by the good designs that respondents are experiencing. Perhaps a test of poor design might be more forthcoming.

Hypothesis IX: In terms of content, employees prefer hard and soft news over their Intranet, but timely news is most important.

Survey results did not fully support this hypothesis. Results from question six, which asked respondents to check off the kinds of stories they wanted to read on their Intranet, showed a preference for hard news over soft. However, it should be noted, that hard news stories are always timely. See Table 6.

This finding shows that employees do not want to use their Intranets for casual reading. Instead, employees prefer significant stories concerning hard business news like plant openings, policy changes, new contracts, etc. In terms of planning Intranet content, this is an important finding for communication managers.

Public Relations Implications

This survey proved these important points with implications in the area of corporate communications:

- Most employees who use an Intranet feel good about it, and prefer using it over print. Therefore, Intranets are an effective communication channel.
- Because Intranets save time and are convenient to use, they may replace print-based publications in many instances in the future. In some companies, Intranets already have.
- Intranets will become a primary internal communication tool in the next century.

In addition, this survey found the following useful information to corporate communication managers:

- Age and gender are important demographics to consider when determining appropriate Intranet audiences.
- Education is not a factor when determining an Intranet audience.
- Brief, hard news is most appropriate for Intranet use.
- The Intranet is not the place for lengthy, in-depth stories.
- Males more than females, despite age, prefer the Intranet.
- Younger employees prefer the Intranet more than middle-aged employees.
- Older employees often prefer print, despite gender and education.

- **Graphic presentation is somewhat important to readership**
Recognizing employees' Intranet preferences and constraints will help communication professionals plan and develop the most effective Intranets.

Further Study

Since Intranets are relatively new in employee communications, many areas are open to study. However, as a result of these findings, richer data in the following areas would be useful:

- **Age-** A scientific study followed by focus groups may show specific reasons why older employees prefer print. Is it physical, emotional or breaking a life-long reading habit? Data pinpointing the specific age when print is preferred would help select the most appropriate Intranet audiences.
- **Gender-** Probe why males, despite age, prefer the Intranet more than females. Does this relate to culture, education, training, exposure or fear? Focus groups of males and females may find their preferences and constraints concerning computer use. A comparison may reveal if and why gender determines preference.
- **Graphic Design-** The results of this survey testing graphic design were muted by the split. However, a further, more intense look at this feature may be significant. Allow two employee groups to use an Intranet, one with a bland design, the other with powerful graphics. A test for length of time spent and content retention can help show how design affects readers.
- **Interactivity-** This research did not test for specific Intranet content and design. However, interactivity is now a popular drawing feature on

the Internet. Would it have the same effect on an Intranet? Test the difference in hits on advertised non-interactive and interactive sites.

- **Comparisons of Internet and Intranet reading-** Much research is being conducted on Internet users. Can that research be applied across the board to Intranet users? This survey supported the finding that electronic readers won't engage in lengthy stories. Study the latest Internet findings on content and demographics. Do those hold true to Intranet readers?
- **Retention-** This research did not probe an Intranet's ability to successfully deliver a message to a reader so that it is understood, remembered and acted upon. Conduct a study comparing the differences in retention and behavior between reading on the Intranet and in print.

Summary

This research confirms the future of Intranets as primary internal communication tools.

Most employees prefer an Intranet over print-based publications. This finding confirms current trade press predictions that say Intranets will be a major internal communication channel in the future, eventually replacing costly print-based publications almost completely.

At this point, nothing stands in the way of Intranet development. An Intranet is faster, more efficient and less expensive than print. This research shows, the majority of employees who use one, like and want to use it.

The Intranet user profile, determined by this research, supports the importance of Intranets in the future. The findings revealed that only age is a major constraint in Intranet preference. Education was not a factor and gender was not a major constraint. Over time, today's

older employees will retire and be replaced by employees who virtually grew up on the Internet. These employees will naturally use their computers to seek information. They will expect the Intranet to deliver important messages to them. It will be imperative for communication professionals to deliver effective Intranet content.

Bibliography

Anderson, Daniel, Bret Benjamin and Bill Paredes-Holt. Connections A Guide to Online Writing, Mass: Viacom. 1998, 200-202

Bridis, Ted."Study: Americans reading news on Internet grows at 'astonishing' rate" Associated Press 8 June 1998: Online. Electric Library Document. Information Access. Nov. 1999.

Boxenbaum Grates, Inc. "Riding the Next Wave: Intranets and their Impact on Organizational Balance." (July 1998). Online. Internet. Available www.boxenbaumgrates.com

Garcia, Christina; Mondy, Lawrence. "Computers: From Programs to Pajama Parties." Time Nov. 1986: Online. Electric Library Document. Jan. 1999.

Grunig James E. and Todd Hunt. Managing Public Relations. New York: College Publishing. 1984, 245

Finney, Martha I. "Harness The Power." Human Resource Magazine Jan. 1997, 66-74.

Holtz, Shel ABC. "Intranets: What's All The Excitement!" Communication World, June/July, 1996, 54- 55.

Holtz, Shel ABC. Intranets: The Communicator's Guide to Content, Design and Management, Chicago: Lawrence Ragan Communications, Inc. 1996, 219- 220

Holtz, ABC Shel. Writing For the Wired World Online abstract. Internet. Amazon.com

Kendall, Lori. "The Nerd Within: Mass Media and the Negotiation of Identity Among Computer Using Men." Journal of Men's Studies Spring 99. Vol. 7 No. 3. pg. 353-69. Wilson Web. Online. Nov. 1999. Available: <http://vweb.hwwilsonweb.com>

Lynch, Clifford. "Electrifying the Book." Library Journal 15 Oct. 99: Supplement Net Connect, Vol 124 Issue 17.EBSCO. Online. Nov. 1999.

Menagh, Melanie. "Gender Gaps In IS Relevancy." Computerworld 09 Oct. 95: Electric Library Document. Nov. 1999.

Newsom Doug, Judy Turk, and Dean Kruckeberg. This is PR: The Realities of Public Relations. 6th edition. USA: Wadsworth. 1996, 167 to 169

Orman, Dave. qtd. in "Intranets: What's All The Excitement!" Communication World, June/July, 1996, 54- 55

Plamondon, Kathy Kidd. "Gender Differences Among Early Elementary Students in Computer Use and Interest." Teaching and Change, Spring94, Vol 1 Issue 3: EBSCO. Online. Nov. 1999.

Ragan Lawrence Communications Inc. "The Technology of Tomorrow, Today!" (1999) Online. Internet. RaganCommunications.com

Rudnick, Michael. Cognitive Communications, Inc. Personal interview. 26 Nov. 1997.

Sacks, Colin H.; Bellisimo, Yolanda. "Attituddes toward computers and computer use: The issue of gender." Journal of Research on Computing in Education. Winter 93/94. Vol. 26. Issue 2. pg. 256. Ebsco. Online. Available Access Nov. 1999.

Sorbello, Frank. Cigna, Inc. Philadelphia. Personal interview. 19 Nov. 1997

Telleen, Steven L. Ph.D., Director of IntraNet Solutions, Amdalh Corporation. Online. Internet. (1996) www.amdahl.com

Thomas, Russell. *Ragan Intranet Report*.. Lawrence Ragan Communications Inc. Feb. 1998

Weinman, Janice; Haag, Pamela. "Gender Equity in Cyberspace." Educational Leadership Fall 1999. Vol. 56. No. 5. Wilson Web. Online. Nov. 1999 Availalbe <http://vweb.hwwilsonweb.com>

Rowan University
Graduate Department of Public Relations
Employee Communication Survey 1998-99

1. How do you feel about reading your company news on the Intranet?

A.) very positive _____ B.) positive _____ C.) no opinion _____

D.) somewhat negative _____ E.) very negative _____

2. Depending on how you answered question 1, what do you like or dislike most about reading your company's news on the Intranet?

Please circle one.

like most

convenience

time-saving

paperless

dislike most

lacks touch, connection

can't readily take it from the office

difficult access

3. If given a choice, how do you prefer to read your company news, via the Intranet or print publications?

I prefer the Intranet _____

I prefer a print format _____

4. Would you read a lengthy, in-depth article about your company on the Intranet?

yes _____ no _____

4 A. If you answered "no" to question 4, would you read that same article if it were presented in a printed publication?

yes _____ no _____

5. How important is presentation (graphic design) in terms of enticing you to read company news on the Intranet?

very important _____ important _____ doesn't matter _____

not very important _____ not at all important _____

6. What kinds of stories do you prefer to read on the Intranet? Check all that apply to you.

- company's future plans _____
 stories about company profits and losses _____
 job related information _____
 job openings within the company _____
 news of new business and new projects _____
 employees' social news (birthdays, anniversaries, weddings ...) _____
 personnel policies _____
 company's community involvement _____
 benefit explanations _____
 stories about other employees you know _____
 personnel changes, and promotions _____

7. What is your age?

35 and under _____ 36-49 _____ over 50 _____

8. Please indicate.

Male _____ Female _____

9. Please indicate the highest level of education acquired to date.

high school _____ college (circle years completed) 1 2 3 4
 post graduate 1 2 Masters _____ Ph.D. _____

10. How many hours a day do you work at a computer?

none _____ 1 -2 _____ 3-4 _____ 5-6 _____ 7-8 _____