BRRP

BUSINESS REPORTING RESEARCH PROJECT

Electronic Distribution of
Business Reporting Information

Steering Committee Report Series

Business Reporting Research Project

This report is the first published section of a broad study—the Business Reporting Research Project—sponsored by the FASB to determine, in selected industries, the kind of business information corporations are reporting outside of financial statements. A 14-person Steering Committee consisting of members of the Board's constituencies is supervising the project.

In addition to 10 industries studied, two separate studies complete the project. The first, in the pages that follow, describes the electronic distribution of business information and casts a new light on the exciting possibilities and problems of the Internet and technology on the business reporting universe. The second will deal with the redundancies between SEC and FASB reporting requirements, thus pointing the way to eliminating overlap and duplication.

The Steering Committee wishes to thank the members of the Electronic Distribution Working Group, one of the seven working groups involved in the overall project, for their preparation of this report.

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This report is also available on the FASB web site at www.fasb.org.

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FINDINGS

The growth of the Internet as a medium for delivering business reporting information has altered the way information flows from companies to investors and creditors. That structure will continue to change as companies bring new technologies to the process and as information users find new ways to gather and analyze information.

The Electronic Distribution Working Group was charged by the Business Reporting Research Project Steering Committee to study the state of reporting business information over the Internet and to identify notable practices. This report is the result of that study. In the course of its study, the Working Group identified a set of key findings and issues that overlay the report.

Democratization of Business Reporting

More than anything else, the Internet has expanded the amount of information available to nonspecialist investors and allowed delivery of that information at no cost or very low cost. Speed of delivery and ease of access are important, but, today, any investor with a computer and a modem can obtain information that was previously available, as a practical matter, only to an elite of company officials, professional investment analysts, and the financial press. In an October 18, 1999 speech, Securities and Exchange Commission (SEC) Chairman Arthur Levitt observed:

> The behind-the-scenes feeding of material non-public information from companies to analysts is a stain on our markets. This selectiveness is a disservice to investors and it undermines the fundamental principle of fairness. . . . I appeal to companies, in the spirit of fair play: make your quarterly conference calls open to everyone, post them on the Internet, invite the press.[1]

This broadening of access cannot help but to alter the relationships among participants in the marketplace. The changes are unpredictable, but it seems clear that the value of being "in the know" will necessarily decline and be replaced by the value of adding insight or usefulness to information.

The Reporting Model

The traditional reporting model for providing business and financial information looks to the company as the principal source of information. An individual company has more information about its activities than any outsider, so it can produce business information

[1] "Quality Information: The Lifeblood of Our Markets," remarks by Chairman Arthur Levitt, Securities and Exchange Commission, The Economic Club of New York, New York City, October 18, 1999.

at lower cost, and with greater reliability, when compared with the cost that outsiders would incur to obtain similar information. For example, an individual company has more information about its employee base than any outsider, so the cost-benefit equation tilts heavily toward the company as a provider of information about its employee-benefit obligations. That basic relationship will likely continue, but outsiders have entered the marketplace for enhancing and gathering information. Chapter 6 outlines how many companies use outsiders for information and services delivered on the companies' Web sites. A company must produce basic financial data. However, managers have little incentive to enhance and develop those data if outsiders will perform the service at no cost or a very small cost to the company. On the other hand, our interviews with companies revealed significant concerns about the quality and completeness of information processed by some outsiders. Managers may decide that added control justifies added cost.

Completeness

The reader of a printed annual report or SEC filing has a reasonable expectation that the bound document includes a predictable set of information. Financial statements will be accompanied by footnotes and a report of the independent public accountant. Required schedules will be present in the prescribed form. If nothing else, the physical covers of the document place boundaries around the information.

As observed in Chapter 3, information provided on the Internet does not have the same quality of predictable completeness. For example, the Working Group encountered an "annual report" link on one company's Web site that led to the president's letter from the annual report. The balance of the report was not included on the Web site. In another case, a company's printed annual report included a detailed index. The report produced on the Web site did not. Information prepared and summarized by third parties may be even more suspect. For example, financial statements are sometimes summarized into standardized formats that omit the details and explanatory notes necessary for a full understanding.

Timeliness

Internet users have come to expect that information on a Web site is the most current information available. After all, a Web site for a major media company includes the latest stories. A bookseller's Web site includes the latest releases. In contrast, business reporting continues to provide information in packets, each of which is current as of the date of its release or filing.

Some have suggested that the Internet will drive business reporting from its monthly, quarterly, and annual cycles to a system of real-time reporting. That may be, although there are myriad practical and legal problems to be resolved. In the meantime, there is a need for tools that will integrate current information with previously released information without exposing the reporting entity to significant cost or legal issues.

Variability of Content

The Working Group observed considerable variability in both the content of business reporting on the Internet and the manner in which it is delivered. As outlined in Chapter 5, some companies see the Internet as an opportunity to enhance and expand the information provided in traditional channels. Others provide a limited information set. The Working Group does not offer an opinion about the best mix of information on a company's Web site, although Chapter 6 reports what others have said. The Working Group observes, however, that the use of the Internet to deliver information makes differences among companies easier to see and evaluate.

Potential Risks

Financial information does not dodge the existing regulatory system merely by zipping over copper wires instead of traveling on a mail truck. The application of current regulations is straightforward when the information's electronic presentation is directly analogous to its paper-based counterpart. Internet technology, however, has produced situations outside the paper paradigm. Hyperlinks from forward-looking statements to legal disclaimers are a prime example. Do hyperlinked disclaimers "accompany" the statements, as required by recent legislation? No judicial answer has emerged. Fortunately, legal scholars and practitioners generally agree on strategies to reduce the risk of being caught in Web-related litigation.

The Report

The Working Group's report is presented in seven chapters.

Chapter 1 describes the Internet landscape for reporting business information, notable initiatives and research, and the approach taken by the Working Group. Capital markets want rapid access to information beyond that contained in traditional paper-based reports. How companies address this issue is the focus of regulators and researchers alike.

Chapter 2 describes notable current practices identified in the course of the Working Group's study. Companies are transcending the paper paradigm in terms of content and presentation. A good example is presentations to analysts by management. Some individual investors now have front-row seats, via video Webcasts, at these previously invitation-only events.

Chapter 3 describes the data about Web sites collected by the Working Group. Many core features of corporate Web sites, such as annual reports and press releases, are provided by a clear majority of sites. In contrast, leading-edge technologies, such as streaming audio and video, are less commonly employed.

Chapter 4 describes other academic research into reporting business information on the Internet. The Internet is proving to be fertile ground for researchers. Over a dozen studies have examined the growing pervasiveness and capabilities of corporate Web sites. A recent, common theme has been the empowerment of the individual to select how and when to receive corporate information.

Chapter 5 describes the results of follow-up interviews with selected companies. These interviews highlight the divergent strategic objectives, and consequent uses, of the Internet. Some companies consciously decide to "stay on the porch," because they "can't run with the big dogs." Others strive to be leaders of the pack.

Chapter 6 describes the developing role of outsiders in the delivery of business and financial information. As outsiders provide more corporate information, corporate insiders are faced with a dilemma: Is the cost of providing information worth the increased control over its presentation?

Chapter 7 describes legal and other issues identified during the course of the Working Group's investigation. The explosive growth of the Internet clouds the fact that the rules of the "paper game" still apply. Sometimes, though, the technology races ahead of the rules, and corporate information managers find themselves in uncharted territory. A wary eye is helpful.

CHAPTER 1—INTRODUCTION

Overview

The ways in which business is conducted continue to change and, given this evolution, there will be fundamental changes in business reporting. With the Internet becoming a favored medium, recent technological advances have led to unprecedented changes in the means available to corporations, government agencies, and the investing public to obtain and disseminate information. Today, many companies, regardless of size, make information available to the public through Internet Web sites. On those sites and through links from one Web site to others, individuals may obtain a vast amount of information in a matter of seconds. Advanced data presentation methods using audio, video, and graphic and image material are now available through even the most inexpensive personal computers and laptops.[2]

A list of potential motives for companies to provide financial information on the Internet include:

- Reducing the cost of and time to distribute information
- Communicating with previously unidentified consumers of information
- Supplementing traditional disclosure practices
- Increasing the amount and type of data disclosed
- Improving access to potential investors for small companies.

The supply of financial information reported by companies on the Web is growing at a rapid rate. As the study reported in Chapter 3 indicates, 93 percent of the top 100 Fortune 500 companies include some form of financial information on their Web sites. Although the numbers are lower for smaller U.S. companies and companies in other countries, studies by other researchers reported in Chapter 4 indicate that those companies are quickly catching up.

Paralleling the rapid growth in the supply of Web-based business and financial reporting has been the rapid growth in the demand for this information by online investors. Many of those investors trade without any form of guidance from brokers or other investment

[2]Securities and Exchange Commission, *Rulemaking for EDGAR System*, Securities Act Release No. 33-7684, May 17, 1999.

professionals. In fact, many of those investors conduct all of their trading and research via the Internet. The October 11, 1999 issue of *Fortune* magazine observes:

> How big is online trading now? Well, some 42 million out of 99 million American households have PCs, and 24 million have Internet access. About 12 million of those households now have online accounts, and those folks are making more than a half-million trades a day. The percentage of U.S. investors trading online is now about 12.5% and is expected to climb to 29.2% by 2002. If anything, the latter figure could be low. Merrill Lynch and the other full-service big boys are just now furiously retooling their businesses to offer online service.[3]

The use of the Internet is becoming another tool with which investor relations and finance departments communicate information. In June 1999, *Investor Relations Business* reported that, while still in their infancy, online analyst conferences were becoming a popular method of holding meetings. Although investors can access audio broadcasts relatively easily, online meetings without video are not popular. "I've seen nothing to indicate that companies which have tried broadcasting their annual meetings have had a negative experience. It's just that it's a state-of-the-art medium, and attitudes haven't caught up with technology yet," said Louis Thompson, president of the National Investor Relations Institute (NIRI).[4] "Webcasts are a real step forward. From hearing live presentations, investors can form judgments about management's savvy. Subtleties such as an exec's tone can signal conviction or caution regarding growth prospects. Calls can also provide a fascinating glimpse into a company's inner workings."[5]

One of the catalysts helping drive change in business reporting is the time lag between periodic report filings. Information technology now allows companies to report information in a timely manner and provide it more frequently to all who are interested. The availability of more timely and relevant financial information should help increase the efficiency of capital markets.

> The fundamental problem is that analysts are desperate for information and they torture the chief financial officers to try and get it. . . . [C]onnect the two. . . . If the world at large wants to know what is going on, they could potentially plug into the company computer.[6]

[3]Andy Serwer, "A Nation of Traders," *Fortune* (October 11, 1999): 120.

[4]"Online Annual Meetings Have Yet to Take Off," *Investor Relations Business* (June 21, 1999): 14–15.

[5]Amey Stone, "Analyst Calls: Let Investors Listen," *Business Week* (May 24, 1999): 111.

[6]Dominic Bencivenga, "Investors Push for Real-Time Data on Internet," *New York Law Journal* (May 7, 1998): 5, col. 2 (quoting Michael R. Young, partner at Willkie Farr & Gallagher, who also represents the American Institute of Certified Public Accountants [AICPA]).

However, with increased timeliness there is the potential for decreased reliability. Risk management will be the key for companies to successfully balance providing meaningful and reliable information in a timely way. For example, a core dump of data would not provide meaningful information to either sophisticated or unsophisticated users of business and financial reporting.

Of course, along with increased shareholder access comes the risk of shareholder lawsuits. Links to third-party information, especially links to analysts' sites, may invite litigation. Without appropriate disclaimers, a company may inadvertently give visitors the impression that all information provided in other Web sites to which the company's Web site is linked is afforded the same level of accuracy and reliability. This is an issue clearly on the minds of those in the investor relations function.[7]

The FASB Business Reporting Research Project, Electronic Distribution Working Group

Objectives

The Electronic Distribution Working Group attempted to identify broad trends in providing business information, particularly with respect to how companies use technology to add value to their disclosures. In developing the objectives and scope of the project, members were mindful of the rapid change in technology, and the possibility that information gathered by the Working Group could become outdated before it was fully considered.

Our general objective, simply stated, was to study present systems for the electronic delivery of business information and consider the implications of technology for business reporting in the future. This overall objective encompassed the following components:

- To consider the current state of electronic dissemination and the incentives and motivations for electronic dissemination
- To consider the current and future needs of users of electronically distributed information
- To understand the impediments that delay the Internet's potential from being realized, such as:
  - Audit concerns
  - Securities law and other legal liability issues

[7]"Corporate Websites: Links to Litigation," *Investor Relations Business* (November 23, 1998): 4–5.

  – Lack of demand
  – Challenges and opportunities that the Internet presents for standard setting
- To summarize notable current Web-based business information practices considered helpful in making investment and other decisions.

Scope and Approach

In determining its scope, the Working Group considered research that preceded our work, particularly with respect to studies performed on Internet Web sites of other countries. In 1998 and 1997, papers were written by noted academicians investigating investor relations and Internet practices for corporate reporting in both Germany and the United Kingdom.[8] Research on reporting practices outside the United States may be beneficial in terms of analyzing differences between countries. However, we chose to limit our study to companies within the United States. This strategy reflected the Working Group's view that there would be a sizable U.S. population to investigate and the results of this specific group would provide the greatest benefits to the readers of this report, who were considered to include those who prepare and package business reporting information.

Additionally, several studies have been performed by academicians within the United States. One of the researchers for this report, Glen L. Gray, has coauthored three papers on this topic.[9] Those papers investigate the use of the Web to communicate financial and other corporate information. Researchers at the University of Wisconsin-Madison, School of Business have investigated financial reporting practices on the Internet using a sample of 290 firms that were identified in the Association for Investment Management and Re-

[8]Dominic Deller et al., "Investor Relations and the Internet: Background, Potential Application and Evidence from the USA, UK and Germany," Research Project "Competitive Advantage by Networking," Project B4 "Standardization of Information Intermediation in International Capital Markets" (Seminar for International Accounting, Joahnn Wolfgang Goethe-Universität, February 1998); Claire Marston and C.Y. Leow, "Financial Reporting on the Internet by Leading UK Companies." These were papers presented at the 21st Annual Congress of the European Accounting Association, April 6–8, 1998. Andrew Lymer of the University of Birmingham, UK, and Anders Tallberg of the Swedish School of Economics, Helsinki, Finland, "Corporate Reporting and the Internet—a Survey and Commentary on the Use of the WWW in Corporate Reporting in the UK and Finland." This paper was presented at the 20th Annual Congress of the European Accounting Association, April 23–25, 1997.

[9]"Corporate Reporting on the Internet: Opportunities and Challenges," paper presented at the Seventh Asian-Pacific Conference on International Accounting Issues, Bangkok, Thailand; "Voluntary Financial Reporting on the Internet: An International Perspective," paper presented at the American Accounting Association (AAA) 1999 Annual Meeting, San Diego, California; "Accounting Information in a Networked World—Resource Discovery, Processing and Analysis," paper presented at the AAA 1998 Annual Meeting, New Orleans, Louisiana.

search's (AIMR) *Annual Review of Corporate Reporting Practices.*[10] Researchers at the University of Texas, School of Business and the University of Kansas, School of Business have also produced research papers on the topic.[11]

After examining the above research and the strategies used by the researchers, the Working Group structured its study as follows:

- We developed a list of attributes considered relevant to the investment, financial and business reporting, auditing, and other related communities.
- Members of the Working Group and selected students from California State University, Northridge, reviewed, under the supervision of Glen Gray, the Web sites of Fortune 100 companies and some additional companies identified as "technologically savvy" to determine their present practices.
- The data collected were based on visible information as presented on the Web site using a basic Web browser.
- The data collection form included 325 attributes of which 292 required "yes" or "no" answers. In terms of individual attributes, they were divided into two basic groups: (1) those attributes related to a company's general Web site (for example, the company's home page) and (2) attributes related to investor relations and financial reporting.
- Subsequent to the initial data collection, we surveyed a group of intermediaries who develop investor relations Web sites because those entities survey users and have access to what users desire.
- Each of the Working Group members polled a sample of the companies whose Web sites were reviewed on selected questions about the philosophy and goals, operation and monitoring, and planning and decisions that have contributed to their Web site development.
- We inquired as to how companies decide who their target audiences are and how long it takes to place information on the Web.
- We interviewed a number of practitioners in the field of business and financial reporting and investor relations on the Internet, including Web site developers, consultants, and other service providers.
- We examined the role of third parties in linking information to Web sites.

[10]Hollis Ashbaugh et al., "Corporate Reporting on the Internet," *Accounting Horizons,* 13(3): 241–257.

[11]Michael Ettredge et al., "Determinants of Voluntary Dissemination of Financial Data at Corporate Web Sites," February 1999; "Accounting Information at Corporate Web Sites: Does the Auditor's Opinion Matter?" February 1999; "Financial Data at Corporate Web Sites: Do Information Clienteles Matter?" December 1998; "The Presentation of Financial Information at Corporate Web Sites," University of Kansas, August 1998; Robert Prentice et al., "Corporate Web Site Disclosure and Rule 10b-5: An Empirical Evaluation," *American Business Law Journal,* vol. 36, no. 4 (Summer 1999): 531–78.

- We reviewed recent professional literature regarding legal issues related to electronic disclosures of business and financial information.
- We summarized the results of our research and observations, including notable current practices, and identified potential issues for further inquiry.
- We reviewed the FASB FauxCom financial reporting package.

SEC Initiatives

In recognition of the benefits that electronic technology provides, the SEC has issued interpretive releases and rules addressing the use of electronic media to deliver or transmit information under the federal securities laws. These initiatives are premised on the belief that the use of electronic media should be at least an equal alternative to the use of paper delivery.[12]

In its first interpretive release on electronic delivery, the SEC offered the position that the use of electronic media enhances the efficiency of the securities markets by allowing for the rapid dissemination of information to investors and financial markets in a more cost-efficient, widespread, and equitable manner than traditional paper-based methods. The Commission concluded that recipients who are provided information through electronic delivery should have comparable access; consequently, the use of a particular medium should not be so burdensome that intended recipients cannot effectively access the information provided. For example, if an investor must proceed through a confusing series of ever-changing menus to access a required document so that it is not reasonable to expect that access would generally occur, this procedure would likely be viewed as unduly burdensome. In that case, delivery would be deemed not to have occurred unless delivery otherwise could be shown. The SEC has offered several methods of providing evidence of delivery such as obtaining informed consent from an investor to receive information through a particular electronic medium (coupled with assuring appropriate notice and access) and electronic mail return receipt.[13] These, and other methods are still under review and, while the SEC release addresses the procedural aspects of delivery, it does not address the situations under which electronic delivery of information is required.

In addition to the SEC's interpretive releases, numerous no-action and interpretive letters, and clarification of existing legal requirements, the SEC staff has under way major initiatives to review fundamental elements of the regulatory structure governing public offerings under the Securities Act of 1933 and of the regulatory structure governing se-

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[12]Securities and Exchange Commission, Division of Corporation Finance, *Current Issues and Rulemaking Projects*, January 21, 1999.

[13]Securities and Exchange Commission, *Use of Electronic Media for Delivery Purposes*, Securities Act Interpretive Release No. 33-7233, October 6, 1995.

curities markets under the Securities Exchange Act of 1934.[14] The SEC has stated that, while New York Stock Exchange policies require that listed companies must disseminate press releases on material developments by the "fastest available means," in accordance with revised National Association of Securities Dealers rules that have been approved by the SEC, at a minimum, listed companies have to provide press releases to the three major news services—Bloomberg, Dow Jones, and Reuters.[15]

In addition to posting quarterly press releases, Forms 10-Q, Forms 10-K, and annual reports, some Internet Web sites provide access to satellite broadcasts of shareholder meetings, proxy contests, and online analyst calls. The Commission has concluded that it is of vital importance to be cognizant of the benefits of innovation and technology, while staying mindful of the need to protect investors and maintain orderly markets. New technologies, particularly the Internet, should not become new media for fraud and abuse.

> Whatever the eventual decision—whether we keep the current system . . . or some other solution as yet unseen—we should not wait until we've found the Holy Grail to begin taking action. There are many steps we can take right now to better match the theory of investor communications with the reality of investor communications. It's never too early to apply common sense.[16]

Industry Research

Given the millions of people in North America that routinely access the Internet, this medium offers companies a wider audience for company materials than is currently available through print. The AIMR's[17] *Annual Review of Corporate Reporting Practices* revealed that 84 percent of companies had a Web site in 1996, although reasons for companies choosing to have a Web site varied.

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[14] Securities and Exchange Commission, *Report to the Congress: The Impact of Recent Technological Advances on the Securities Markets,* July 8, 1997.

[15] Laura S. Unger, commissioner of the Securities and Exchange Commission, speaking on "Corporate Communications without Violations: How Much Should Issuers Tell Their Analysts and When," at the 19th Annual Ray Garrett Jr. Corporate and Securities Law Institute, April 23, 1999.

[16] Arthur Levitt, chairman of the Securities and Exchange Commission, speaking on "Corporate Finance in the Information Age," at the Securities Regulation Institute, January 23, 1997.

[17] The AIMR is an association of analysts, comprising the Institute of Chartered Financial Analysts and the Financial Analysts Foundation.

A study conducted in 1998 by the NIRI[18] indicated that 86 percent of its corporate members had Web sites and that an additional 10 percent planned to provide Web sites during the subsequent 12 months. Among the companies with Web sites, 86 percent had an investor relations section and 63 percent of senior investor relations officers used electronic mail to communicate with analysts and investors.[19]

In February 1999, respondents in a new AIMR study rated conference calls the most important and informative form of technology-aided communication between a public company and the financial community. Conference calls (95 percent) topped Web sites (77 percent) as the most valuable source of strategic or financial information on companies (among the high-tech communications methods) with e-mail following at 72 percent. The majority of respondents reported that most companies they follow have created and maintain a corporate Web site with an investor relations section. However, only 25 percent rated the Internet as a "very valuable" source of information. Sixty-seven percent of survey participants reported that almost all of the strategic or financial information found on the Web could be found via other resources. At the same time, a similar number (65 percent) noted that easy access to corporate information by way of a corporate Web site made it easier to provide accurate analysis of companies they cover.

The NIRI conducted a survey of its corporate members in June 1999 and found that although only 10 percent of the survey population currently use the Internet to broadcast annual meetings, another 25 percent (120 companies in the survey) are actively considering it.

> The expense of upgrading the Investor Relations portion of the corporate Web site may be high, but companies should deem the benefits of providing information to the financial community sufficient to offset the costs. As seen in our survey, however, corporations have not yet done this as analysts are disappointed by the quality, timeliness, and specificity of financial information provided on the Internet.[20]

[18]A professional organization of corporate officers and investor relations consultants with 4,500 members that include the largest publicly held companies in the United States and an increasing number of small-to-mid-size companies.

[19]Louis M. Thompson, Jr., president of the NIRI, based on the April 1998 survey, "Utilizing Technology in the Practice of Investor Relations Second Measurement," conducted by the Rivel Research Group, May 18, 1998.

[20]Thomas Bowman, president and CEO of the AIMR, about survey results published in February 1999 (www.aimr.com/infocentral/news/99releases/int-study.html) (visited May 12, 1999).

One area of concern is the use of chat rooms as a vehicle to mull over the “latest” bits of information. The opportunity to share gossip and opinions may be all too readily available.

> Companies have to worry about chat rooms and bulletin boards because the Internet allows for rapid dissemination of information to a large audience. Disgruntled employees can easily post information anonymously which may move a company’s stock price. . . . [21]
>
> Chat rooms, which increasingly have become a source of information and mis-information for many investors, have been compared to a high-tech version of morning gossip or advice at the company water cooler. But, at least you knew your co-workers at the water cooler. For the future sake of this medium, I encourage investors to take what they see over chat rooms—not with a grain of salt—but with a rock of salt.[22]

Due to the relative newness of the Internet as a means of distributing information, no business model has been determined to be well established for delivering financial information electronically. The traditional pathways for delivering information are well established, but any consensus about the “right” approach to delivery over the Internet is still developing.

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[21] Laura S. Unger, commissioner of the Securities and Exchange Commission, speaking on “Getting to Know You: Dealing with the Wired Investor,” at the American Society of Corporate Secretaries, June 25, 1999.

[22] Arthur Levitt, chairman of the Securities and Exchange Commission, speaking on the risks and rewards of online trading at the National Press Club, News Release 99-43, May 4, 1999.

CHAPTER 2—NOTABLE CURRENT PRACTICES

This chapter highlights notable company and third-party practices that the Working Group observed during the data collection, interviews, and analysis discussed in the following chapters. The Working Group defined notable practices as modes of operation, techniques, and other practices designed to maximize use of the Web's capabilities to distribute business information. Classification of those practices as notable was highly judgmental and reflects only the opinions of the members of the Working Group. In addition, the Working Group did not attempt to assess whether the potential benefits derived from each practice were likely to exceed the cost of implementation in all circumstances.

Notable Practices Related to Company Web Sites

The Working Group observed the following notable current practices during our review of companies' Web sites and the follow-up interviews discussed in Chapters 3 and 5. Many, although not all, of the practices highlighted below reflect practices being considered or implemented primarily by companies that are striving to innovate with new electronic data offerings and software tools.

Easy Access

Investor-related financial and business information is often maintained in a separate section of the company's Web site and is easily accessible from its home page. Most companies that provide more than a minimal amount of financial data on their Web site have established a separate section to capture the information and often title it "Investor" or "Investor Relations." These investor sections usually contain at least the following types of information:

- Quarterly and annual financial reports
- Financial history
- SEC filings
- Stock quotes
- Press releases
- Information request forms
- Other shareholder information.

Many companies have found that providing an easily navigable investor relations section on their Web site has significantly reduced the number of phone calls requesting standard information such as annual reports or SEC filings. While some companies initially received complaints when they directed information seekers to the Web instead of sending a facsimile with the data, they also found that providing electronic access has reduced fax and mailing costs.

Financial Commentary

A number of companies have expanded their offering of financial and business data via the Internet to include information that was historically prepared primarily for analysts and institutional investors, thereby making it more easily accessible to a wider audience. Examples of such offerings include:

- Management presentation transcripts and slides
- Transcripts or audio archives of conference calls, presentations to analysts, and other meetings
- Online company factbook
- Earnings commentary
- Investor relations calendar of events.

Providing those data via the Internet not only increases the speed of distribution to analysts and institutional investors, but it also makes the information more easily accessible to individual investors and other interested parties.

Analytical Tools and Portable Data

In presenting their financial and business data, some companies have utilized formats and tools designed to assist the user in reviewing, analyzing, and using the information. For example, companies sometimes incorporate formats or features in the Web version of their annual report that make it easier to use, such as:

- Linked table of contents
- Hyperlinks that connect items to other relevant sections of the report and to other relevant documents
- Multiple file formats (for example, PDF and HTML).

As another example, sites sometimes provide graphics and other tools to allow the user to view the company's stock price history for a selected period or to look up the company's closing stock price on a specific date.

In some Web sites, a downloadable data feature allows the user to copy data into the appropriate word processing application or a spreadsheet application. At least one company also provides analytic tools to assist its users in summarizing and analyzing the company's historical financial data and in modeling projected earnings. Based on the comments of some of the companies interviewed, providing those tools helps to promote greater usage of a company's Web site by saving re-keying time and effort for those interested in analyzing the data.

Streaming Audio and Video

Not only are companies providing greater accessibility to information previously supplied in printed form, some companies also are utilizing technological advances to provide *streaming audio* and *video* on their Web site. Streaming audio, which allows one to listen to analysts' conference calls, annual meetings, and similar presentations, may be used to broadcast conference calls or meetings live or to provide an archive of presentations from which the Internet user can select. Thus, those who missed a call or other interested parties can listen to an archived version in its entirety. In many cases, the streaming audio is accompanied by video so that the Internet user cannot only hear but can also see the meeting or speaker.

Using the Internet to broadcast meetings and conference calls also allows the company to utilize visual aids, such as slide presentations, that would be more difficult to distribute if other communication mediums were used. Furthermore, by making the broadcast of analysts' conference calls and other meetings available to any Internet user, companies have found that they have increased individual investors' accessibility to such information.

E-Mail Alerts

To assist interested parties in receiving the most up-to-date information as quickly as possible, many companies allow Internet users to sign up for e-mail alerts. Depending upon the company, users who sign up for this service receive newsletters, press releases, and other updates via e-mail. In other cases, users receive a message in their e-mail box whenever the company posts certain new information to its Web site. Companies have found that such e-mail alerts often help to minimize or replace the more expensive use of "mass fax" to distribute information.

Site Activity Monitoring

Some companies regularly monitor usage of the investor relations section of their Web site to identify ways to improve site efficiency and increase usage. Companies not only monitor the total number of hits but also collect data indicating the usefulness of the different types of information included on the Web. In addition, those companies often use recurring information requests, informal feedback, and a review of other Web sites to identify investor data needs that can be better met through electronic distribution. This information is then utilized to identify suggestions for improvements to increase site traffic and ease of use.

Update Outsourcing

Third-party providers now offer services to provide and maintain an investor relations Web site for a company. While the majority of the companies we interviewed continue to use in-house resources to do all or most of the design, updating, and maintenance of their Web sites, some have considered or are considering outsourcing this function. Advantages touted by third-party providers include the comprehensiveness of the information provided by sites they designed, the user-friendly tools provided, such as downloadable data, and the freedom from maintenance on the company's part.

eXtensible Financial Reporting Markup Language (XFRML)

While most of the Web sites the Working Group reviewed use HTML (Hypertext Markup Language) to present information, efforts are under way to develop a more sophisticated language for financial reporting known as XFRML. XFRML is a project instituted by the AICPA with support from six information technology companies, the five largest accounting firms, and other organizations. The objective of XFRML is to provide the financial community a standards-based framework that, among other things, allows for more efficient preparation of financial statements and for reliable extraction of specific detailed information from the financial statements of different organizations.

To understand the potential power of XFRML, it is important to understand the limitation of HTML. While HTML uses a set of formatting tags to create Web pages, HTML tags do not provide information about the data between the tags. For example, HTML tags would not help a user who tried to use a Web search engine to find the net income of 10 selected companies. With XFRML, tags can be used to define data elements, thus making it easier to search for data as well as to prepare different forms of financial statements that use the same data.

In order for any eXtensible Markup Language (XML) to be effective, the specific population of users and developers (and other interested parties) must agree on a standard set of XML tags they will use. For this reason, the AICPA, the five largest accounting firms, and various information technology companies have agreed to work together to develop XFRML for the preparation and exchange of financial reports and data.

In addition to the AICPA's initiative, the SEC is exploring the role of XML in Electronic Data Gathering, Analysis, and Retrieval (EDGAR) and supplementary filings. The SEC has requested comments on the use of XML, particularly for EDGAR submissions.[23]

[23] For proposed SEC XML-related rules see (www.sec.gov/rules/proposed/33-7653.txt).

Other Notable Practices

This section lists notable current practices that we identified during the review of the role of outside organizations discussed in Chapter 6.

Third-Party Assemblers of Data

What is perhaps most notable about the outside organizations discussed in Chapter 6 is their ever-increasing number. Over the last two years, there has been tremendous growth in the number of third-party Web sites and online services that accumulate and "assemble" financial and other business information related to publicly traded companies. Some of these sites have been spawned by companies that never existed until recently and that originated to serve investors who want to conduct business via the Internet. Other sites have arisen as many long-standing entities, such as news services, have expanded their menu of services to include the electronic distribution of business information.

Search Capabilities That Utilize Links to Other Sites

Many of the third-party sites provide access to a wealth of data either through direct accumulation and storage or through links to other sites. Examples of the types of data frequently accessible through these sites include:

- Companies' financial statements
- SEC filings
- Companies' press releases
- Stock quotes.

As a result, those Web sites give their visitors the capability to search a variety of sources for information on a particular company or industry and to conduct searches on multiple companies. By collecting the data and providing access through one site, those sites help investors and others save time and effort that might otherwise be spent surfing the Internet to find the needed information.

Tools

As was the case with company Web sites, many outside providers utilize Internet formats and tools to make the data provided easy to use and analyze. For example, the commercial Web sites that provide a database of companies' electronic filings to the SEC often include user-friendly tools and features such as:

- Annotated and hyperlinked tables of contents
- Downloadable data files

- Enhanced search (for example, by date or industry) and formatting capabilities
- E-mail alerts of filings made by companies on a user's watch list.

Many other third-party information providers also provide enhanced search, downloading, and formatting capabilities for the data on their sites. As another example, some sites also utilize streaming audio to provide archives of analyst conference calls and other broadcasts for various companies.

Other Value-Added Services

While much of the information on third-party sites also is obtainable from company Web sites, some online services provide data from other sources or analyses of company data. For example, some focus on collecting analyst recommendations, earnings-per-share estimates, and analyst reports on individual companies, which they then package for sale to companies, investors, and other buyers. Other information providers build, maintain, and utilize databases of company financial information, financial ratios, and stock price history to sell different analytic products and services. Much of the data are available only through subscription or purchase although some information may be provided at no charge.

Online Investment Brokers

In addition to providing price and volume information on individual stocks, many online brokers accumulate and provide financial and other business information related to individual companies. Those brokers usually limit access to most of the data they provide to those who have opened an account with them, although some information is often made available to all Internet users. While some brokers present only a limited amount of financial data, others provide quick access to a significant quantity through links to SEC filings, newswires, and other Internet sites. In addition, some include their own research on individual companies or reports from other investor services.

CHAPTER 3—CURRENT WEB-BASED FINANCIAL AND BUSINESS REPORTING—THE WORKING GROUP'S STUDY

Introduction

This chapter reports on a snapshot of the current state of financial and business reporting via the World Wide Web. The first objective of this exercise was to help develop a comprehensive list of Web site attributes. As such, we decided to focus on Fortune 100 companies. Because of their size and capital, those companies could afford to develop state-of-the-art Web pages and, therefore, a review of those companies would probably uncover the vast majority of attributes. We also focused on the Fortune 100 because there are several academic studies from the past three years that reported on this group as well as studies from other countries that likewise reported on the largest companies in their countries or regions. This will allow future researchers to conduct both longitudinal and cross-country comparisons to the results of this study to more accurately identify changing trends.

A second objective was to determine how frequently or in what form those attributes were used on Web sites. Obviously, the Fortune 100 companies representing the 100 largest corporations in the United States are not a representative sample of all publicly traded corporations, but as this chapter will illustrate, even among those elite corporations, use of the Web for electronic dissemination of financial information varies widely. However, the reader is cautioned as to generalizing the reported statistics beyond the Fortune 100.

This chapter first provides an overview of the methodology used to collect the data. The chapter then provides descriptive statistics on how frequently and/or in what form the identified attributes appeared on business and financial reporting Web sites.

Methodology

A key aspect of this project was to collect a comparative snapshot of Web-based reporting on one specific day. In some previously reported research, one or two researchers collected the data themselves. This study assessed over 300 attributes. To collect comprehensive attribute information for 100 companies could take 1 or 2 researchers several months. On the Internet, Internet-months are like years in the sense that things change so quickly. (It has been said that 18 Internet weeks = 1 normal year.) As such, by the time 1 or 2 researchers completed the 100th company, the first company in their study could have changed significantly. As a consequence for this project, a team was assembled to collect all the data in one day.

The following is a brief summary of the methodology:

- An FASB staff member developed a list of attributes that was subsequently presented to the Working Group.
- That list was combined with some of the other evaluation attributes that have been used by academic researchers in prior studies. This allowed us to compare the current Fortune 100 findings with other U.S. and international research projects—as well as providing a basis for future researchers to compare their results with the FASB's results.
- An attribute collection form was developed and distributed to the Working Group for comments.
- On January 30, 1999, 17 accounting and MIS students; Julie Erhardt, Wayne Upton, and Glen Gray from the Working Group; and Professor Ronald Stone met in a computer classroom at the College of Business Administration and Economics at California State University, Northridge, to collect data on the Fortune 100 company Web sites.
- The collected data were based on what was visible on the Web site with a basic Web browser. As such, we did not evaluate what was inside downloadable files such as Adobe Acrobat PDF files. (More will be said on those downloadable files in the next section.)
- When we collected the data on January 30, we used the most recent version of the Fortune 500 list, the 1998 list, which was published in the April 1998 *Fortune* magazine.
- The 17 students were given instructions as to the meanings of the attributes on the data collection forms. Then each student was given a data collection form and a company assignment. When a student turned in his or her completed form, he or she was given another form and company.
- The data from the completed forms were subsequently entered into a spreadsheet for analysis.

Descriptive Statistics

Of the Fortune 100 companies, 99 had Web sites. Of the 99 companies with Web sites, 93 of them included *some* form of investor relations/financial information Web pages. Attributes related to those pages varied widely.

Number of Attributes

Before discussing the attribute statistics, one caveat should be noted. As stated earlier, 21 people collected the data. Because of time constraints, we did not test rater reliability. We did *not* ask everybody to evaluate the same site and then compare his or her results. Because the different companies did not use the same terminology, groupings, or links, attributes sometimes were buried and could not be found. As such, the numbers reported in this section are probably understated.

It also should be stated that we are not implying that more attributes are better than fewer attributes. Many internal and external factors can influence a company's decision as to how much to invest into developing a Web site. For example, it might be expected that companies with very high proportions of share holdings by institutional investors would spend less on their investor relations Web sites, since these companies tend to routinely provide institutions with this information via other traditional means.

The data collection form included 325 attributes. Of those attributes, 292 required "yes" or "no" answers. No company came close to having 292 yes answers. There was significant variability between the 99 companies. Even comparing the top 25 companies in terms of the companies with the most attributes, the number of attributes dropped almost 45 percent from the company with the most attributes (127 attributes) to the 25th company (70 attributes). Those companies with the lowest number of attributes typically included only downloadable versions of their financial statements. As was stated before, we did not look inside downloadable files. (The later section on HTML and PDF financials provides a more-detailed discussion of the related issues.)

Specific Attributes

Exhibits 1–4, which appear in the appendix to this report, include the statistics for the specific attributes. The exhibits parallel the data collection form. The attributes can be divided into two basic groups: (1) those attributes related to a company's general Web site (for example, the company's home page) and (2) attributes related to investor relations and financial and business reporting. Exhibit 1 summarizes the general attributes. Exhibits 2–4 summarize attributes related to investor relations and financial and business reporting.

General Web Attributes

Because using graphics is one of the most basic elements of Web design, we were not surprised to find that 100 percent of the Web sites had some form of graphics; however, the graphics varied from simple, monochromatic logos to complex image maps. With an image map, the graphic is internally divided into regions, and depending on where a user clicks on the graphic, the user is hyperlinked to different pages. For example, a company may have a map of the United States and, depending on which state the user clicks on, the user would be moved to a page that lists stores in that specific state. In addition to static graphics, nearly half (47 percent) included animated graphics, and in terms of multimedia, 7 percent included sound files and 6 percent included video files.

To help users navigate the Web sites, 88 percent of the Web sites had tables of contents and 64 percent had search boxes to help locate specific information. As an added feature that reflects the globalization of the Web, 21 percent of the Web sites offered alternative languages to English.

In general, Web pages are created with HTML. As with all languages, subsequent versions of HTML are released that have new enhancements and features. Web pages are viewed in browsers (for example, Microsoft Internet Explorer and Netscape Navigator). As new versions of HTML are released and used by developers, older browsers may not be compatible with all the new enhancements. As such, as companies start using these enhancements they will presumably indicate on their Web sites the minimum browser requirements. About 16 percent of the reviewed sites included minimum browser requirements, which can be *loosely* interpreted as saying 84 percent of sites were not using enhancements from the more recent versions of HTML. It should be noted that the 84 percent is probably overstated. It is quite possible that companies are using some of those enhancements without necessarily stating the minimum browser requirements. It also should be noted that companies might be actively deciding not to use new enhancements so that their Web sites will be viewable by the widest audiences—even those using the oldest browsers.

Although HTML does have some limited interactivity in terms of allowing users to input information via forms, HTML is designed for formatting the presentation of text and graphics on Web pages. To provide dynamic interactivity to Web sites, a variety of languages were either adopted or developed for Web sites including, for example, Java, JavaScript, and ActiveX. These languages also require specific browsers. Fourteen percent of the reviewed Web sites stated language requirements. Keeping the caveat in the prior paragraph in mind, it would appear that 86 percent of the Web sites are not utilizing those languages. Again, this may represent an explicit decision to ensure that the widest audiences can view the Web sites.

While 84 percent did not state minimum browser requirements and 86 percent did not state minimum language requirements, that does not mean that a large majority of the Web sites were unsophisticated. Nearly half (47 percent) of the companies were involved in electronic commerce (selling goods and services online), which generally requires sophisticated software behind the Web pages to interface with order entry, inventory, and accounting applications.

Regarding the general relationships between the home pages and financial and business reporting, 67 percent had a link from their home page directly to the investor relations page and 22 percent had a direct link from their home page to the latest annual report. In addition, 27 percent included stock quotes on their home pages.

Investor Relations and Financial Reporting

Of the 99 companies that had Web sites, 93 companies (94 percent) included some form of investor relations or financial and business reporting Web pages. The financial and business reporting ranged from highly summarized to highly detailed and enhanced.

Investor Relations

One of the reasons we looked at the general (home) pages was to provide a baseline in terms of "bells and whistles" used in developing the Web sites and to then compare the investor relations sites to that baseline. On the investor relations sites, 94 percent used graphics (compared with 100 percent on the home pages), 16 percent used animated graphics (compared with 47 percent), 4 percent used sound (compared with 7 percent), and 2 percent used video (compared with 6 percent). So, it would appear that in terms of enhancements, less emphasis is placed on investor relations sites than on home pages.

In terms of materials or links, investor relations sites (which could be more than one page) included:

- For subsequent contact: 56 percent provided e-mail addresses, 62 percent provided phone numbers, and 54 percent included postal addresses.
- 68 percent included links to EDGAR filings at the SEC.
- 67 percent included press releases.
- 57 percent showed the latest stock prices.
- 57 percent included quarterly reports.
- 41 percent included links to proxy statements.
- 34 percent included financial ratios, key statistics, or other information presented apart from the annual report. (14 percent had interactive graphing or analysis tools.)
- 17 percent had factbooks or other information supplied to analysts.
- 16 percent had lists or reports of analysts who follow the company's stock.

HTML and PDF Financials

One of the most significant decisions in designing financial and business reporting Web pages is the use of HTML and PDF file formats. HTML is the primary language for Web development. PDF is a special file format, developed by the Adobe Corporation, for creating documents that can look and print exactly like the original printed document. An HTML document can be viewed directly in the browser. To view a PDF file, the user requires an Adobe Acrobat PDF Reader plug-in to be installed on his or her computer. As Table 3-1 indicates, those two formats have relative advantages and disadvantages.

Table3-1—RelativeHTMLandPDFAdvantagesandDisadvantages

	Advantages	Disadvantages
HTML	Can be viewed directly in the browser—requires no plug-in Is an open formatting standard Can easily hyperlink into and out of HTML pages	Browser may split tables and pages Document printed from browser will probably not look like original document Can require significant work to convert original document to HTML document in terms of layout and design
PDF	When file is printed, it will look exactly like printed document on which it was based Very easy to create from original document Document cannot be inadvertently altered by users	Even though it prints well, because of differences in the aspect ratios of the screen versus printed page, it is difficult to read and navigate through PDF files on screen Requires Adobe Acrobat Reader plug-in that the user must locate, download, and install Can hyperlink out of PDF files, but cannot hyperlink *into* specific points inside a PDF file Consists of very large files that are slow to download Information in PDF files is not indexed by search engines (for example, Alta Vista or Lycos) Plug-ins can be a security risk, since they execute automatically when user selects PDF file Reader is based on a proprietary format Reader is currently free, but may not be free forever

Of course, these two formats are not mutually exclusive. As Table 3-2 indicates, companies used a variety of combinations of those two formats. Including the one company that had no Web site, 7 companies (7 percent) included no financial statements in either format. Only a little more useful were the 4 percent of companies that provided only partial financial information.

More than one-fifth (21 percent) of the companies included their financial statements exclusively as PDF files, which means that a user could not view the financials without the Adobe Acrobat Reader plug-in. Ten percent of the sites provided partial HTML financial reports plus full PDF reports.

A significant advantage of the HTML format is that the financial statements can be viewed on any Web browser—whether that browser is on desktop, laptop, or handheld computers as well as other electronic devices such as WebTV and the new generation of cellular telephones. Apparently recognizing this flexibility, 58 percent of the companies provided full financial reporting in HTML. Twenty-seven percent gave the users full choice of HTML and PDF formats, providing the most flexibility.

Table 3-2—Relative Combinations of HTML and PDF Formats

	No PDF	PDF
No HTML	7 percent	21 percent
Partial HTML	4 percent	10 percent
Full HTML	31 percent	27 percent

In addition to these two popular formats, 12 percent also provided financial reports in word processor formats. Focusing on just the financial statements (as opposed to the complete financial report), 16 percent of companies provided downloadable spreadsheet files.

Navigation Aids

The hypertext environment of the Web can cause some users to become lost in hyperspace. That is, after clicking on several hyperlinks a user can forget how he got to a certain page and not know how to return to the point where he started. A variety of navigation aids can help reduce this phenomenon. The following navigation aids were used by the 92 companies with annual reports. The percentages of companies using the aids also are given:

- 71 percent included tables of contents composed of hyperlinks so the user could go directly to a desired section.

- 42 percent included *next* and *previous* buttons at the bottom of each page so the user could move through the annual report in a linear fashion—just like the paper annual report.
- 29 percent included a search box where the user could enter a term or phrase for searching through the site.
- 20 percent included site maps, which are usually more detailed than a table of contents and are in a hierarchical outline structure. Like the table of contents, the site map listings are composed of hyperlinks so the user can jump directly to a specific page or section. Instead of a textual outline, sometimes site maps, which are large image-mapped graphics, were used where clicking on different areas of the graphics takes the user to different parts of the annual report.
- 11 percent provided an alphabetical index composed of hyperlinks.

Somewhat related to navigation is the use of techniques to indicate to the user when they are inside and outside the annual report. With a paper annual report, the annual report is a stand-alone document. Everything between the front cover and back cover is the annual report. However, on the Web, the annual report is embedded in the much larger corporate Web site. As such, it may not be clear to the user when he or she is inside or outside the annual report. With hyperlinks, this concept of inside and outside may become even more confusing as the user clicks away on the hyperlinks. If the user does not realize that he hyperlinked out of the annual report, the user may think the current materials he is viewing still falls under the management's and auditor's statements included in the annual report. To aid users' sense of place, 33 percent of the annual reports used some technique to let the users know they were inside or outside the annual reports, including:

- 31 percent used specific colored or graphical borders.
- 23 percent used specific colored or graphical backgrounds.
- 4 percent actually had a dialog box pop up to tell the users that they were leaving the annual reports and asked if the users wished to continue.

Annual Report Contents

Pages 1–4 of Exhibit 3 list the percentages of occurrences for a wide variety of potential annual report contents, as well as some enhancements to the basic contents such as hyperlinks.

Effects of Voluntary Web Reporting

When looking at Exhibit 3, the reader may ask why there are no 100 percents, particularly for items normally required in annual reports. Because companies are not specifically required to place their financial reports on the Web, any company that does so is doing it voluntarily. In addition, there are no *specific* rules that say what companies must include in their Web financial reports. Therefore, other than outright misrepresentation of the facts, companies are free to include as much or as little as they choose. *Essentially* full annual reports were provided by 58 percent of the companies, but even within this group there were variations in items not presented, such as customer or employee profiles. Within the 14 percent that chose partial or summary annual reports, the combinations of individual items that were fully included, partially included, and not included varied widely. It is this voluntary, no-specific-rules environment of Web-based financial and business reporting that makes studies that explore current financial and business reporting, like the one in this report, so important.

Review of Contents

As indicated in the previous paragraph, companies seem to have unlimited possible combinations of financial and business reporting items. For example, they could:

- Include or not include an item from their paper annual report
- Include a full version or summary version of a selected item
- Use the same form of presentation or use a different form of presentation (for example, use a video or sound file for the chairman's message to the shareholders instead of text)
- Add new items not included in the annual report
- Add enhancements not available in the paper paradigm (for example, hyperlinks, animated graphics, interactivity, downloadable spreadsheets, etc.).

In terms of the 93 companies with some form of financial and business reporting, the most popular item was the chairman's message to the shareholders, which was included on 80 percent of those sites. That was followed closely by 78 percent of those sites including financial highlights or summaries, and 73 percent of those sites including the listing of the Board of Directors and Officers.

In terms of financial statements, approximately 74 percent included the full versions (same as paper annual report). Less than that number, 63 percent, included the notes to the financial statements. To supplement the financial statements, 16 percent of the sites had hyperlinks from the annual report directly to the EDGAR filings at the SEC.

Other Content Observations

Although we did not actually compare the printed annual reports with the Web sites, it is safe to say that the Web-based annual reports were essentially conversions—in part or in whole—of the paper-based reports. Although we did locate sound and video files on some investor relations sites, we located only one of these files in the annual reports. About the only evidence that the paper-based annual report had moved to a new paradigm was the inclusion of some hyperlinks inside the various annual report items. For example, about 38 percent of the chairman's messages to shareholders and about 48 percent of the MD&As included hyperlinks. About 36 percent of the financial statements and 38 percent of the notes to financial statements included hyperlinks. Most of the hyperlinks on the financial statements were to the notes. The hyperlinks in the notes were either to the financial statements or to other notes.

Of interest, nearly 22 percent of the auditors' reports included hyperlinks—usually to notes mentioned in the auditors' reports. Since the auditors did not deliver their reports with built-in hyperlinks, the companies must have added them later. This will be an interesting topic for audit regulators to ponder.

Reflecting the recognition of the globalization of finance, 6 percent of the companies allow users to select reports based on different country reporting standards (for example, U.K. GAAP).

A Look at Technology Companies

One might hypothesize that high-technology companies, particularly computer and telecommunication companies, might have more elaborate Web sites to demonstrate their skills. To informally test this hypothesis, we separated out 18 of the Fortune 100 that we believed to be in the high-tech computer or telecommunication industries and compared them with the remaining 81 companies that had Web sites. Table 3-3 shows a summary of our findings. In general, the high-tech companies, on average, had 38 percent more attributes than the remaining companies. Although in terms of attributes, the company with the maximum number of attributes found in our study was not a high-tech company, although, in general, the high-tech companies were clustered at the higher end of the scale than non-high-tech companies. For example, none of the high-tech companies were included in the lowest quartile (the bottom 25 companies) in terms of the number of attributes.

Table 3-3—A Closer Look at High-Tech Companies

Company Types	Number of Attributes Average	Maximum	Minimum
Non-Computer/Telecommunication Companies	48	127	7
Computer/Telecommunication Companies	66	99	32

Summary

The first objective of our study was to try to compile a comprehensive list of Web attributes. The data collectors were asked to provide additional attributes not included on the list. Based on a review of their comments, it appears that among the attributes not listed were (1) comments about Y2K activities, (2) comments about what the company is doing about the environment, (3) consensus earnings estimates, and (4) policies about the archiving of financial information.

The second objective of this study was to determine the popularity of the Web site attributes. Table 3-4 lists the more popular attributes. As can be seen from the table, only 34 of the possible 292 attributes appeared on more than 50 percent of the Web sites. The only attribute to appear on more than 90 percent of the sites was the use of graphics. The most popular financial and business reporting attribute was the chairman’s message, which appeared on 74 percent of the 99 Web sites.

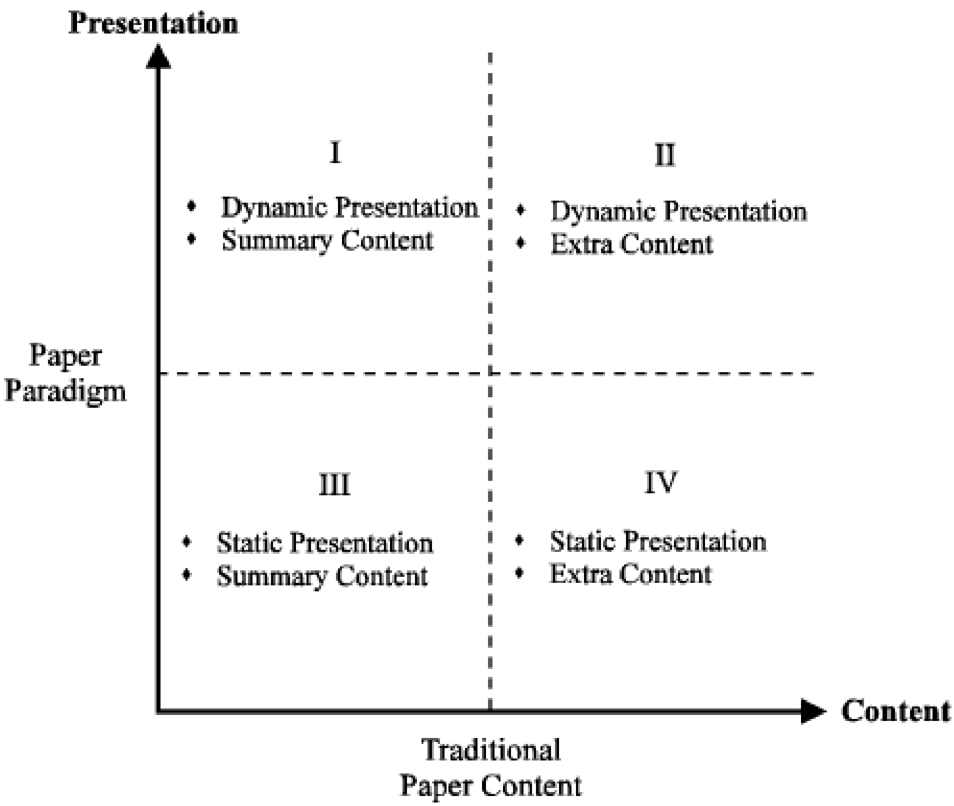
Table 3-4—Popular Attributes

Attributes	Percentages[24]
90% to 100%	
Graphics	100
80% to 90%	
Table of contents for whole Web site	88
Links to news releases	87
Advertisements (for own products)	84
70% to 80%	
Chairman's message	74
Sales information on their own products	74
Financial highlights	73
Included some or all financials in HTML	72
60% to 70%	
Balance sheet	69
Board of directors	68
Link to investor relations from home page	67
Press releases on investor relations site	67
Annual report table of contents	66
Statement of income	65
Statement of cash flow	65
Search box on home page	64
Company profile	64
Notes to financial statements	63
Links to EDGAR	63
Form 10-Qs	61
Changes in shareholders' equity	61
Auditors' reports	60

[24]Percentages are based on 99 Web sites.

Attributes	Percentages
50% to 60%	
Phone number for investor relations	58
PDF-formatted financial reports	57
MD&A	57
Material often found at the end of an annual report (e.g., transfer agent)	55
Photo of chairman	52
Current stock prices	53
Quarterly reports	53
E-mail address of investor relations	52
Statement of management's responsibility	52
Form 8-Ks	51
Postal address for investor relations	50
Consolidated financial statements	50

Figure 3-1—Two Dimensions of Web Design Attributes



Financial and Business Reporting Framework

Figure 3-1 shows a framework to illustrate the two basic dimensions of financial and business reporting: content and presentation. In terms of Web-based content, the Web site could include all the content from all of the materials the company published in paper form, summary content, or extra content. In terms of forms of presentation on the Web, the Web site could be equivalent to paper—text and static graphics. On the other hand, the Web allows dynamic forms of presentation technology that cannot be used in the paper paradigm such as sound and video.

In terms of the content dimension, it could be said that the 58 percent of companies that provided full HTML financial reports are right on the “traditional paper content” line. Some companies moved beyond that line by providing additional content such as additional financial ratios, financial statements that use other countries’ accounting principles, or extended years of historical data. In terms of forms of presentation, most of the companies were right at the “paper paradigm” line. That is, they provided text and static charts and graphs. However, some companies have crossed that line and are offering limited interactivity and multimedia presentations.

In summary, looking at the four quadrants in Figure 3-1, the vast majority of the Fortune 100 companies are in Quadrant III—some are near the origin (including less on their Web sites than they did in their paper disseminations) and others are nearer the upper right-hand corner (matching their paper disseminations in their electronic disseminations). Some are moving into Quadrant I and Quadrant IV, and some are pushing into Quadrant II. However, as mentioned earlier, it may not be appropriate for a company to be in Quadrant II. Much depends on internal and external factors in determining the appropriate level of investment.

CHAPTER 4—CURRENT WEB-BASED REPORTING—CITATIONS TO OTHER RESEARCH

In this chapter, we provide brief synopses of other research related to Web-based financial and business reporting. The synopses are divided into two main sections. The first section summarizes research that reported general descriptive statistics on the percentages of companies that had Web sites and, specifically, those that have business and financial reporting Web sites. The second section summarizes studies that have attempted to look behind the statistics to explore whether the differences in Web sites are associated with various company characteristics such as firm size.

The literature included in this chapter should not be considered comprehensive. Because of the newness of Web-based business and financial reporting and the long lead time needed to get studies published in academic journals, most existing pertinent literature is in the form of working papers and conference proceedings. To locate literature for this study, researchers known to be working on this topic were contacted and a general request for literature was posted on an accounting research LISTSERV.

Descriptive Statistics

Probably the biggest focus of electronic dissemination research has been on collecting and reporting descriptive statistics on Web-based financial and business reporting.[25] This section first focuses on statistics from the largest U.S. corporations and then on companies from outside the United States. In addition to single-country studies, the selection also includes international studies that compare multiple countries at a point in time.

U.S.-Based Fortune 500

In one early paper, Petravick and Gillet (1996) looked at the top 150 Fortune 500 companies and reported that 69 percent had Web sites and 54 percent had some form of financial information on that site—31 percent had full financial reporting and 23 percent had partial reporting. In the same year, Louwers et al. (1996) looked at the same population and reported that 65 percent had Web sites and 46 percent had financial information. Even though those two research teams looked at the same population, the differing results could reflect the exact timing of when they evaluated the Web sites. Web sites

[25] Although it did not focus on descriptive statistics, an article in the March 1997 issue of the *Journal of Accountancy* called, "When the Bottom Line Is Online" (Koreto, 1997), raised some interesting questions and discussed some of the attributes of four Web sites: Exxon, Raytheon, Intel, and Microsoft. These attributes and sample Web sites did appear in subsequent research papers.

seem to be changing so quickly that minor differences in timing can result in very different statistics. Those differences also could reflect the difficulty in locating specific items on company Web sites.

Later, Gray and Debreceny (1997) reported that in December 1996, of the 1996 top 50 Fortune 500 companies, 49 (98 percent) had Web sites. In addition, 34 (68 percent) distributed their annual reports on their Web sites, and 18 (36 percent) also included auditors' reports.

By the time Gray and Debreceny's paper was actually presented at the Asian-Pacific Conference, they had collected 1997 statistics for the top 100 Fortune 500 companies. First, looking at just the top 50 companies to compare to 1996, again 49 companies had Web sites, 35 (70 percent) included their annual reports, and 20 (40 percent) included the auditors' reports.

Looking at the complete 1997 top 100 Fortune 500 companies, Gray and Debreceny reported that 96 percent had Web sites, with 71 percent including annual reports and 34 percent including auditors' reports. Referring back to Chapter 3 in this report, for the 1998 top 100 Fortune 500 companies, 99 percent had Web sites, with 93 percent including annual reports and 60 percent including the auditors' reports.

Although the specific companies included in the top 50 or 100 Fortune 500 change each year, there does appear to be a trend upward in the various percentages. Now, 99 percent of the top 100 have Web sites.[26] Those companies with at least some financial information appear to be heading toward 100 percent. It also seems clear that the percentage of Web sites that include the auditors' reports is rapidly increasing.

Non-U.S. Companies

While researchers in the United States were looking at U.S. companies, researchers in other countries were looking at the largest companies in their own countries or regions.

- **U.K.:** Lymer (1997) analyzed the 50 largest U.K.-listed companies and reported that 92 percent had Web sites, with 68 percent of them including financial information.
- **U.K.:** Hussey, Gulliford, and Lymer (1999) compared financial disclosures for the U.K. FTSE 100 on August 1997 and March 1998 and found that disclosures grew from 54 percent to 63 percent.

[26]This also appears true for the 1999 Fortune 500. Of the top 100 companies on the newest list, still only 1 company does not have a Web site.

- **Finland:** Lymer and Tallberg (1997) analyzed all 72 listed companies in Finland and found that 90 percent had Web sites, with 82 percent of them including financial reports—11 percent had full reporting and 71 percent had partial reporting.
- **Germany:** Deller, Stubenrath, and Weber (1998) analyzed the 30 largest companies in Germany (DAX 30) and reported 87 percent had Web sites, with 83 percent of them having investor relations information (not just financial reports).
- **Spain:** Molero, Prado, and Sevillano (1999) reported that 45 percent of the companies on the Madrid stock exchange had Web sites, with 56 percent of those including some financial information.

International Studies

Some researchers have analyzed companies from more than one country in the same report. Deller, Stubenrath, and Weber (1998) reported, in terms of investor relations:

- 91 percent of S&P (U.S.) used the Web
- 72 percent of U.K. companies used the Web
- 71 percent of German companies used the Web.

As part of a forthcoming major report from the Canadian Institute of Chartered Accountants (CICA), 370 companies were randomly selected from the 10,000 companies listed on the Toronto Stock Exchange (TSE), the New York Stock Exchange (NYSE), and the NASDAQ (Trites, 1999). The CICA reported that 69 percent of this sample had Web sites, with 35 percent of them including financial information—26 percent had full reporting and 9 percent had partial reporting.

In the biggest study undertaken so far, Lymer et al. (1999) analyzed 660 companies, which included the 30 largest *listed* companies from 22 different countries. The tentative results were presented at the 1999 American Accounting Association (AAA) Annual Conference. The final results are included in a major international report published by the International Accounting Standards Committee (IASC).

The preliminary analysis found that 84 percent of the corporations had Web sites. At the high end, for Canada, Germany, Sweden, and the United States, 100 percent of the top 30 companies had Web sites. The lowest number for the 22 countries studied was 52 percent for Chile. For the whole population, 62 percent had some form of financial disclosure.[27]

[27]The IASC report includes a very detailed analysis of the 660 companies. The final report is available from the IASC at its Web site: (www.iasc.org.uk/frame/cen3_26.htm.)

Although the United States currently leads in most statistics, as the above illustrates, companies in other countries also are increasing their Web coverage.

Timeliness of Disclosures

Some researchers have looked at other aspects of Web reporting of business and financial information. For example, Petravick and Gillett (1998) reported on the timing of Web disclosures. They reported that 99 (79 percent) of the top 125 of the Fortune 500 companies posted their earnings announcements on their Web sites by the day following the traditional earnings announcement. This rapid posting implies that these companies view their Web sites as important outlets for corporate disclosures.

Behind the Statistics

The majority of the electronic dissemination research, like those represented above, primarily provided descriptive statistics. Other papers have treated the reporting statistics as dependent variables and have explored a variety of independent variables that might influence those results. For example, some of the above papers used country as an independent variable and compared the statistics of those countries. The following summarizes some papers that have explored other variables.

Ashbaugh, Johnstone, and Warfield (1999) explored the Web activities of 290 firms included in the AIMR1994/95 and 1995/96 *Annual Review of Corporate Reporting Practices*. Specifically, their data collection occurred between November 1997 and January 1998. They found that 87 percent of the firms had Web sites. Of those firms, 30 percent had little or no financial information and 70 percent had comprehensive financial information. In terms of independent variables, they found firms will be more likely to have Web sites if they:

- Had been previously recognized by the AIMR for their excellence in paper-based corporate reporting
- Were larger firms
- Were more profitable firms
- Were manufacturing firms (100 percent of manufacturing firms in the sample had Web sites compared with the lowest—73 percent of mining and agriculture firms).

Several related papers have been developed at the University of Kansas. For example, Ettredge, Richardson, and Scholz (1999a) tested seven hypotheses to identify independent variables that might be related to different levels of disclosure. They examined 112 semiconductor and related devices companies and 119 biotechnology companies from

1996 S&P Compustat plus 259 firms tracked by the AIMR. Although the degree of results varied between the AIMR and non-AIMR samples, in general they found that the amount of financial disclosure was:

- Positively related to firm size
- Positively related to the need for new external equity capital
- Positively related to the quality of the firm's corporate reporting practices.

Using the non-AIMR sample from the earlier study above, Ettredge, Richardson, and Scholz (1999b) examined whether there are relationships between the financial data on corporate Web sites and the sophistication of the expected Web site users. Analysts were considered sophisticated users and retail investors were considered less sophisticated. In general, they found that "higher levels of analyst following are associated with relatively objective, more extensive data, and higher levels of retail ownership are associated with relatively subjective, more abbreviated information."

The results of another Ettredge, Richardson, and Scholz (1999c) report have potentially problematic findings. They located 100 companies that had going-concern auditors' reports. They then located another 100 matching companies (matched on characteristics such as SIC codes) that had unqualified opinions. They found that although both sets of companies provided extensive financial information, the companies having going-concern exceptions were less likely to include their auditors' reports.

Prentice, Richardson, and Scholz (1999a) raise some interesting points about Rule 10b-5 that will need to be addressed in the future by various standard-setting and regulatory bodies.[28] Rule 10b-5(b) states, "[It shall be unlawful] to make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading. . . ." The researchers make two basic points about Rule 10b-5 and Web-based business and financial reporting. First, are companies that put only summary information (what they call "annual report excerpt") on their Web pages increasing their risk under the "to omit to state" part of 10b-5? In their review of 490 Web sites in 1998, they found 17 percent included excerpts. Second, companies that posted information on their Web sites that is exclusively prepared for the Web site also could be at risk of, for example, touting their stocks. For example, a company may add links to analysts who follow the company, but

[28]Ettredge, Richardson, and Scholz (1998a) raise many of the same issues, but not in the formal framework of SEC Rule 10b-5.

a closer look at the links may show that the company linked to only those analysts who had favorable opinions.[29]

Summary

The Web was only commercialized in 1994; however, as this chapter illustrates, a rapidly growing number of companies around the world are establishing Web sites and many of those companies also are posting business and financial information. The decision to establish a Web site and to post financial information appears to be related to factors such as firm size and the expected users. Some of those decisions could be problematic as was discussed in the auditors' reports paper and the SEC Rule 10b-5 papers.

Research is continuing in all of those areas and will provide additional streams of information in the future.

[29] Chapter 7 provides a closer look at these regulatory issues.

CHAPTER 5—COMPANIES AS INFORMATION PROVIDERS

Scope of Work

Following its review of Web sites, the Working Group conducted follow-up interviews with a subset of the companies whose Web sites the Working Group reviewed, as reported in Chapter 3. For that work, the Working Group targeted companies that provide at least some business and financial data via the Internet and selected a mix ranging from companies whose Web sites are typical of similar-sized companies to those that provide more state-of-the-art presentations. Fifteen companies agreed to participate in a phone interview or respond to a questionnaire to discuss their company's philosophy, plans, and operational issues related to electronic business and financial reporting via the Internet.

Objectives

The objectives of the interviews were to gain an understanding of each company's:

- *Philosophy and goals* related to electronic business and financial reporting, including the company's distribution objectives and its target audience
- *Management approach* to the business and financial reporting section of its Web site, including assignment of responsibility, the use of outside vendors and other resources to maintain the site, any performance measures utilized, and any efforts to monitor site traffic and chat room activity
- *Future plans* related to electronic business and financial reporting, including other types of business information that were being considered for inclusion on the Web site and future initiatives.

Findings

Philosophy and Goals

While the range of company philosophies about the electronic distribution of business information can be best characterized by a continuum, we found that most of the philosophies included one, or a combination, of the following three goals:

- Complement printed material
- Substitute for printed material
- Innovate with new offerings and tools.

We have summarized the primary characteristics of each of these three goals in the following table.

Table—Companies' Goals for Electronic Business Reporting

	"Complement" Group	"Substitute" Group	"Innovate" Group
Distribution	• Increase availability of information previously provided only in printed form. • Increase speed of distribution.	• Same goals as Complement group. • Proactively encourage the use of the Web as a substitute for the company's distribution of printed material.	• Same as Complement and Substitute groups. • Maximize use of the company's Web capabilities to: – Expand the audience, – Generate more usage, and – Provide data in easier-to-use formats.
Content	• Standard financial reports. • Press releases. • Other investor information. • May also include stock quotes.	• Same as Complement group, plus some additional data (e.g., stock price history).	• Widest range of data. • May include: – Conference call (audio or transcripts) – Management presentations – E-mail alerts.
Audience	• Primarily individual investors, shareholders, and employees.	• Same as Complement group, plus some analysts.	• Same as Substitute group, plus additional use by analysts.
Notable Company Comment	• "We can't run with the big dogs so we stay on the porch."	• "We want to speed up delivery time and lower our costs."	• "We want to answer all questions before asked . . . everything is at the click of your mouse."

Complement to Printed Material

At one end of the spectrum are those companies that primarily view electronic distribution as a *complement* to, rather than a substitute for, the distribution of printed material. None of those companies are actively striving to be a leader in electronic financial and business reporting. Their emphasis is instead on designing and maintaining a well-organized site that contains an electronic version of the information they provide in printed form, thereby increasing accessibility and distribution speed because recipients no longer have to wait for the information to arrive in the mail or via fax.

Substitute for Printed Material

Further along the continuum are companies that not only share the timeliness and accessibility objectives of the Complement group but who also proactively strive to *substitute* electronic distribution for the distribution of at least some printed material among Internet users. While the specific electronic data offered by companies vary, companies in the Substitute group are more likely to include other information in addition to the standard financial reports and press releases.

Those companies have found that using electronic distribution as a substitute for mailings and faxes helps them to eliminate certain printing and distribution costs, achieve "environment friendly" objectives, and increase the efficiency of their investor relations department. For example, one company cited a biannual analyst meeting. The company found it to be more cost-effective and timely to set up a site with transcripts, handouts, and other information from the meeting rather than reproducing and mailing the materials.

Innovate with New Offerings and Tools

Of the companies interviewed, the ones with the most aggressive goals are those that not only share many of the objectives of the Complement and Substitute groups but that also are striving to *innovate* with new data offerings and software tools. Those companies strive to be leaders in the electronic reporting of financial and other business information and are continuously looking for new ways to maximize utilization of their Web capabilities and to stay at the forefront of Web technology. Their Web sites are more likely to offer tools such as downloadable spreadsheet files and to provide some information that historically has not been routinely provided to a wide audience (for example, management presentations). As a result, companies in the Innovate group also tend to provide the widest range of data through electronic distribution.

However, companies in this group have reached different conclusions about the appropriateness of providing certain information through their Web sites. While information, such as analysts' earnings estimates or conference call replays, is available on some company Web sites, other companies have considered such data as a potential offering but decided against it. For example, one organization decided not to include conference call text due to concerns that quotes would be taken out of context. Some companies are reluctant to provide analysts' consensus earnings estimates because of concern that the estimates will be too closely identified with the company.

Given that the range of philosophies can be best characterized by a continuum, the views of many of the companies interviewed often reflect, to varying degrees, a combination of two of the categories described above (for example, the Substitute and Complement groups). The 15 companies interviewed covered a variety of industries with 7 of the companies being in high-tech industries (computer-related and telecommunication). While it is important to keep in mind the small size of the sample and the associated limitations, there is a noticeable difference between the objectives of the high-tech companies and those of companies in other industries. All of the high-tech companies fall into the Substitute or Innovate group, or a combination of them. With the exception of one participant, all of the companies in the other industries expressed philosophies characterizing the Complement or Substitute group, or a combination of them.

No matter what their philosophy, almost all of the companies interviewed target the financial section of their Web sites toward all parts of the investment community including:

- Current shareholders
- Potential individual and institutional investors
- Research analysts.

Other targeted users often include the company's employees, its customers, the media, and students.

Among companies that track usage, most agree that the greatest use comes from individual investors and shareholders. That is especially true for companies in the Complement and Substitute groups. Companies in the Innovate group and to a lesser extent in the Complement group have found that by providing additional data and analytical tools, they are able to generate more interest in their site from analysts and large institutional investors, although they consider their predominant user to still be the individual investor.

All of those interviewed think that analysts and large institutional investors prefer direct contact along with the electronic distribution of information. Based on the responses of some of the companies, it appears that electronic distribution has indirectly helped investor relations departments be available for direct contact by significantly reducing the number of phone calls for standard information such as annual reports and dividend data.

Some of the responses also suggested that a significant result of electronic distribution of financial information is the greater availability of that information to individual investors. Not only can individuals with Internet access receive more quickly the type of information that was previously mailed to them regularly, but, in many cases, they also can access information, such as management presentations, that historically was not routinely "pushed" out to retail investors.

Management Approach

Responsibility

Because companies target the business or financial reporting section of their Web sites to the investment community, it is not surprising that almost all of the companies interviewed have assigned responsibility for its content and presentation to their investor relations department. While having primary responsibility, that department typically utilizes input as needed from other areas of its company, such as:

- Information technology (for example, data speed and other technical issues)
- Finance (for example, data integrity)
- Media design (for example, presentation).

In addition, to ensure that security, audit, litigation, or other such concerns are addressed, all of the companies interviewed involve their legal departments in planning and making decisions. The most common risk-related concerns voiced by the interview participants related to disclosure and disclaimer issues and to the timing of release of information via the Internet. With respect to the latter, companies strive to ensure that press releases are not posted to their Web site in advance of their official release over the newswires.

Use of Resources

The majority of the companies interviewed use in-house resources to do all or most of the design, updating, and maintenance of their Web sites. Others have outsourced those activities. Advantages cited by companies that have outsourced these functions include the comprehensiveness of the information collected and provided by their new site, automatic press release updates, and reports that are downloadable into spreadsheets. However, at least one company that is considering outsourcing expressed concern about forcing the company's information into standard templates and about associating the company with analysts' estimates and recommendations.

Benefits promoted by Web site service providers include their ability to utilize standardized templates and established relationships with content providers to achieve cost savings. Depending on the selections made from the Web site service's list of offerings, the company can determine how extensive or limited a site it will provide. Companies may be inclined to provide a broader array of services and technology through a contractor than would be the case if company personnel had to develop the expertise internally.

Web site service providers also help companies ensure that they stay abreast of new technologies and new offerings popular with other organizations, that their Web sites remain current, and that out-of-date material is removed promptly. With respect to potential advantages to business information users, the more standardized format of the investor relations Web sites produced by contractors may help the user see at a glance what information the company provides. Standardized labels also help reduce the search for particular pieces of information.

Whether they use internal or external resources, most of the companies interviewed commented that the incremental cost of providing financial information on the Web is relatively low. Only a few of the companies required a dedication of full-time resources to maintain their sites and with the exception of start-up or major redesign efforts, other costs also were usually minimal relative to their total investor relations budget.

Other Operational Issues

All of the companies interviewed are satisfied with the speed with which earnings and other press releases are made available on their Web sites. For most of the companies, the timing for posting press releases on the company's Web site is generally within 30 minutes after release to the newswires. The timing for posting other information and updates (for example, annual reports and summary financial information) tends to vary, depending on the content. Many of the companies interviewed stated that they have a process for regularly reviewing their Web site. Among those that do not, at least one company commented that the net result is that old information is not frequently deleted from its site.

With respect to performance measures, not all of the companies use specific measures to evaluate the financial and business reporting section of their Web site. However, among those who do, measures of performance include:

- Timeliness with which a press release becomes available on the company's Web page
- Number of user hits
- Feedback from analysts and investors
- Number of requests, questions, or comments received via the Internet
- Third-party investor relations site ratings.

Those measures help companies evaluate their performance against their goals of increasing the speed of data distribution, generating more use of their Web site, and reducing the number of phone calls received by the investor relations department.

The majority of the companies at least occasionally monitor the number of hits to the business reporting section of their Web site. While many companies collect those data only for informational purposes, others use the data to determine the utility of certain parts of their Web page or to help identify ways to make their site more efficient.

With respect to online chat rooms, over half of the respondents monitor chat room activity related to their securities at least occasionally. However, none of the companies respond to any chat room comments because they do not want to lend credibility to such statements or become involved in online debates. Some also expressed concerns that attempts to address chat room inaccuracies could lead to legal problems.

Future Plans

While companies' specific plans related to the electronic distribution of information vary depending upon their philosophy, all of the companies interviewed are continuing to look for ways to improve the financial section of their Web pages. The plans or initiatives mentioned by those interviewed generally focus on one or both of the following areas:

- Increasing the ease of use, such as through technological improvements (for example, utilizing a more advanced search engine) or site design changes
- Expanding the types of information provided to include such offerings as:
  - Conference call transcripts
  - Speech text and slides
  - Webcasting conference calls
  - Investor questions and answers
  - Industry highlights.

Almost all of the companies interviewed at least occasionally monitor other organizations' sites to stay abreast of what others are providing and also to generate ideas for what should be included on their site. However, companies in the Complement group tend to monitor other sites less regularly than the other respondents, their future plans tend to be less specific, and they appear to base their electronic business reporting plans to a greater degree on what others in their peer group are doing.

Companies in the Substitute group tend to monitor other organizations' sites more regularly, and their review is more likely to include technologically savvy sites. Their future plans tend to reflect a continued focus on shifting fax and mail usage to the Web in order to accelerate information delivery and to lower costs.

At the far end of the spectrum, the companies in the Innovate group are more likely to monitor the sites of a broader cross-section of companies and to pay closer attention to those of technologically savvy organizations. Companies in this third group often find that other Web sites will spawn ideas for improvements or enhancements to their site. They also are more likely to analyze the hits to different parts of their site and other feedback to generate future plans for making their site more efficient and increasing traffic. Their future plans tend to reflect an emphasis on staying at the forefront of Web technology and the electronic distribution of business and financial information.

Summary

In summary, a company's philosophy (complement, substitute, or innovate) tends to drive the range of its offerings and its plans for the investor relations section of its Web site. Given the range of philosophies, it is likely that the amount and type of data provided electronically will continue to vary across companies. Nevertheless, as companies continue to look for new ways to maximize the use of their Web site capabilities, much business and financial information is likely to become more easily accessible to individual investors and other interested parties.

CHAPTER 6—THE ROLE OF OUTSIDERS

While the Steering Committee's focus is on financial and business reporting by companies, the Working Group found that organizations outside the company play a critical and expanding role in the distribution of information over the Internet. It is not unusual for a company's investor relations Web site to include links to information provided to the company by four or five independent organizations. In some cases, the company may have outsourced design and maintenance of its investor relations Web site to an independent contractor. Independent Web sites that provide information for investors also have proliferated. For that reason, we expanded the scope of our study slightly to consider how outsiders (defined broadly as any organization other than the company) enhance and supplement business information. We did not attempt to identify all, or even most, of the organizations in the Internet business reporting space; the number grows daily. We believe that we identified a representative group that includes major participants.

Outside organizations always have played a role in the distribution of business reporting information. In the era before the Internet, companies retained graphic designers and consultants to help with the annual report layout. Major business publications like the *Wall Street Journal, Financial Times,* and *Forbes* provided annual report services that allowed interested parties to obtain annual reports by mail. The growth of the Internet as a venue for reporting business information has expanded the role of outsiders. This wider participation by organizations unrelated to the reporting company has helped to democratize[30] the delivery of business and financial information, by making a variety of existing information available to a large audience at almost no cost. Participation by outsiders also raises questions about which functions should be (or need to be) provided by companies and which should be provided by outside organizations.

The Working Group's examination of outsiders was similar to its work program for company Web sites. We first identified organizations that provide investor and investor relations services on the Internet. We then examined the Web sites for several of those organizations. Finally, we conducted interviews with selected outsiders in the United States and the United Kingdom to learn more about their roles in providing financial and business information.

[30]The phrase "democratization of finance" was coined by Thomas L. Friedman in his book, *The Lexus and the Olive Tree* (New York: Farrar, Straus and Giroux, 1999).

Who Are the Outsiders?

The Working Group found it useful to classify outsiders in two groups—content providers and enhancers used by companies to present information through links to the investor relations Web site and independent investor sites and forums.

Content Providers and Enhancers

This group includes service providers whose services are often hyperlinked from a company's investor relations Web site, although most also provide information through their own Web sites. The information provided by those companies usually is available from other sources; however, they usually add value by enhancing the information or providing it in a form that makes it more compatible with Web sites. Examples of content providers include:

Provider	Content	URL
DigiTRADE	Stock price information and trading services	www.digitrade.com
EDGAR	SEC filings	www.sec.gov
Edgar Online	Enhanced SEC filings	www.edgar-online.com
First Call	Consensus earnings forecasts	www.firstcall.com
FreeEdgar	Enhanced SEC filings	www.freeedgar.com
Media General Financial Services, Inc.	Stock charts, stock trading information, "fundamentals" analytical data	www.mgfs.com

The FreeEdgar and Edgar Online services are a good example of how content providers can improve the usefulness of information. The SEC's EDGAR service provides a complete copy of all filings by public companies. However, the EDGAR documents are in text format. They are exact reproductions of the printed documents and can be very difficult to navigate from a computer console. The FreeEdgar and Edgar Online services take these raw documents, provide annotated and hyperlinked tables of contents, and, most important, allow users to download financial statements as spreadsheet files.

Investor Sites and Forums

These are Web sites that provide a range of information about individual companies. Some are little more than collections of hyperlinks to company and other related Web sites. Others include collections of news about a company and general investment articles. Still others appear to be designed as Internet portals[31] for investors. Most offer a combination of free and subscription services. Some of the significant investor sites include:

Provider	Capsule Content	URL
Bigcharts.com	Interactive charts, quotes, reports, and indicators	www.bigcharts.com
Bridge.com	Free and fee-based service	www.bridge.com
Carol	United Kingdom, European, and Asian companies	www.carol.co.uk
Corporate Window	Annual reports, links to company and related sites	www.corporatewindow.com
DailyStocks.com	Extensive listing of financial links and search engine	www.dailystocks.com
Hoover's Online Business Network	Extensive free and fee-based service	www.hoovers.com
Intuit, Inc.	Press releases, analyst estimates, and market news	www.quicken.com
Investor Relations Information Network	Annual reports, links to company and related sites	www.irin.com
The Motley Fool	Investor forum	www.fool.com
MSN Money Central	Stock quotes, business news, free analyst reports, and other services, free service	www.msn.com
NewsPage	Focus on news coverage	www.newspage.com

[31] A *portal* is a Web site designed to offer users a site to use as the point from which they begin Internet use.

Provider	Capsule Content	URL
The Public Register	Annual report service	www.prars.com
Quote.com	Free and fee-based service	www.quote.com
Street.com	Financial news and commentary, free and fee-based service	www.thestreet.com
Wall Street City.com	Free and fee-based service	www.wallstreetcity.com
Web100	Links to company and related sites	www.w100.com
Yahoo! Finance	Stock quotes, business news, and other services, free service	www.yahoo.com
Zacks Investment Research, Inc.	Extensive free and fee-based service	www.zacks.com

Information about a company provided on third-party investor sites may include:

- Company description, address and phone numbers, locations
- Subsidiaries and affiliates with traded securities
- Lists of products and services
- Company history
- Information about officers and key employees
- Information about and links to principal competitors
- Information about patents and trademarks
- Information about insider trades
- Information about company PAC political contributions
- Summaries of sales, employee counts, and net income
- Products and operations by segment
- News coverage and press releases
- Links to the company investor relations site
- Financial statements in standardized format (but without footnote disclosures)
- Segment information
- Comparisons to industry and market
- Links to company filings on the SEC's EDGAR service

- Links to analysts' research reports (available for free or at fees ranging from a few dollars to a few hundred dollars)
- Historical (10-year) information about revenue, employees, stock price, and selected ratios.

Most of this information could be obtained from other sources. Much of it might be found on the company's investor relations Web site, although few companies would provide hyperlinks to their principal competitors. Some of the information, like the standardized financial statements, may be incomplete. However, the investor site provides value by bringing together data from a wide variety of sources and presenting those data in a reasonably consistent format.

The Carol service is a good example of how a free investor site can increase the usefulness of financial and business information. Companies from the United Kingdom, Europe, and Asia allow access to their online annual reports through Carol World™. The annual report is presented with a left-hand frame showing links to profit and loss, cash flow, balance sheet, chairman's report, shareholder information, five-year review, highlights, and video presentations. Those links are darkened so that a reader of, say, a Hong Kong company's report, can see at a glance whether the company provides this information.

Established media companies like Dow Jones, The Financial Times, Bloomberg, Reuters, Standard & Poor's, and CNNfn also provide Web sites that are designed to serve the needs of investors. In addition, major brokerage houses and mutual funds have expanded their Web sites to provide more extensive information for investors.

Ratings of Investor Relations Web Sites

Time and resources prevented us from surveying users' reactions to financial and business information disseminated over the Internet. The several surveys and ratings prepared by others provided valuable insights and are summarized below.

Bulletin Boardroom, Inc.

During its review, the Working Group identified several Web sites with banners announcing the site as a "Top 25 Web site." The banner represents an award from Bulletin Boardroom, Inc., which maintains a Web site (www.off-on.com) dedicated to monitoring and evaluating the quality of investor relations Web sites. The company also publishes *Off-Line*, a publication dedicated to investor relations on the Internet.

Off-Line lists six attributes of a good investor relations Web site that are used in its regular scoring of sites and its annual "Top 25" listing—timeliness, content, design, interactivity, horsepower (technology and resources), and mutability (information provided in different currencies and languages).

The Motley Fool

In January 1999, the Motley Fool (www.fool.com) Web site published a special feature on investor relations online. The article includes a "wholly unscientific" analysis of investor relations Web sites for 10 well-known companies. Consistent with the disclaimer, the criteria used to evaluate individual sites tend to be more subjective than those used by others, but the results and rankings were consistent with other "best-of" lists.

Dow Jones Business Directory

The Dow Jones Business Directory (bd.dowjones.com) rates corporate Web sites as a whole rather than the investor relations portion of a site. However, its general criteria are similar to those used by *Off-Line*. The Dow Jones Business Directory lists content, speed, navigation, and design as its criteria.

Bowne Internet Solutions

This listing (www.investor-rel.com) does not appear to have been updated for 1998 annual reports. The criteria used to select companies are not listed, but the Web site provides a list of suggested "effective site components" that includes:

- Investor FAQs (Frequently Asked Questions)
- Calendar of events
- Speeches and presentations
- Automatic updates via e-mail
- Links to SEC filings
- Stock price
- Annual reports in HTML or PDF format
- Translation and localization to different countries
- Research coverage
- Industry information
- News articles
- Dividend reinvestment information
- Company e-mail directories
- Proxy statements

- Monthly data
- Downloadable spreadsheets
- Financial data in graphic presentation
- Audio and video
- Information about shareholder mix
- Spatial navigation.

Investor Relations Awards

In the United States, Investor Relations Magazine (www.irmag.com) and in the United Kingdom, the Investor Relations Society (www.ir-soc.org.uk), make awards for best investor relations Web sites. A panel of judges selects the winners and the criteria are not published. Interestingly, Microsoft won the United States award in 1997, 1998, and 1999. Severn Trent PLC won the United Kingdom award in 1997 and 1998; the 1999 award has not been announced.

AIMR Study

In February 1999, the AIMR (www.aimr.org) published a report, *Using Technology and the Internet Study: Researching Corporate Strategic and Financial Information.* The AIMR study found that 95 percent of respondents rate conference calls ahead of Web sites and e-mail as "the most valuable source of strategic or financial information." The executive summary to this report quotes Thomas Bowman, president and CEO of the AIMR:

> We see from these results that the value, quality, timeliness and specificity of strategic and financial information provided in conference calls is considered superior to that provided on the Internet or through e-mail. This seems to indicate that direct access to the CFO, CEO, and Investor Relations Officer remains an important factor when trying to evaluate the potential of a company and its stock price.

Summary

The Working Group considers the increasing role of outsiders one of the "headline" findings of our research. Just as financial intermediaries allow a more efficient circulation of scarce financial resources, these information intermediaries allow a more efficient flow of information. For example:

- A group of vendors develops a service (like charting or enhancing EDGAR filings) and, as a result, investor relations Web sites include features that probably would have been too costly for a single company to provide.
- An investor site gathers information from disparate sources, or provides links to those sources, and largely eliminates the cost that an investor would incur in gathering that information.

In each case, the quality and depth of information available to an average investor increase and the cost of producing and gathering that information declines.

The Working Group does not take exception to the above comment by Mr. Bowman or to the comment by 67 percent of the AIMR respondents that they could find information on the company's Web site "by means of other resources." However, we note that many companies now allow anyone to listen to conference calls live by Internet connection. Others make the conference call available on their Web site in "streaming audio" format within minutes of the call's completion. We have noted elsewhere that company Web sites and other investor Web sites add value by collecting and linking to information in a single place. That information is available at little or no cost to a wide audience, not to professional analysts alone. The power of the Internet as a tool for delivering business and financial information can be found, in large part, in the way it democratizes the process.

The Working Group also considers the role of outsiders to be one of the unanswered questions presented by our research. Who will produce and deliver business information, the company or an outside intermediary? Perhaps more precisely, how will company managers strike a balance between internal and outsider-produced information? The company must produce basic financial data. However, managers have little incentive to enhance and develop those data if outsiders will perform the service at no cost or a very small cost to the company. On the other hand, our interviews with companies revealed significant concerns about the quality and completeness of information processed by some outsiders. Managers may decide that added control justifies added cost.

CHAPTER 7—LEGAL AND OTHER ISSUES IDENTIFIED

The Internet and the Web have provided individual investors with unprecedented access to business and financial information. This new information paradigm is constantly evolving—seemingly limited only by the imagination of those who create it. In reality, it is often constrained by the same rules and regulations that govern the paper-based distribution of corporate financial information. "Just as companies are used to considering the implications of the federal securities laws on more traditional corporate communications, so do they need to consider those laws when communicating via the Web."[32]

Legal Background and Potential Issues

Many of the companies that were examined have adopted largely innocuous electronic financial disclosure practices. However, the Working Group's research identified several Web site practices that are potentially risky from a legal perspective. The following discussion is a survey and overview of particular Web-related legal risks. It is not a definitive discussion and does not attempt to provide legal advice. Among the more significant issues were:

- Inclusion of forward-looking statements, particularly the incorporation of analysts' comments or links to analysts' sites, with no disclaimers or disclaimers that were deficient
- Presentations of financial statements that omitted the footnotes, a specific financial statement, or both
- Postings of transcripts of executive speeches or conference calls, without appropriate cautionary language.

Before discussing each of the above items, it is helpful to summarize common sources of legal liability[33] and potential defenses in connection with financial disclosures. Readers should, of course, consult their own legal counsel for the legal implications of their particular circumstances.

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[32]Boris Feldman and Ignacio E. Salceda, "US: Shareholder and Investor Relations in the Electronic Age—Wilson, Sonsini, Goodrich & Rosati," *Mondaq Business Briefing* (July 6, 1998): (under heading "Company Home Pages and Investor Relations"), *available in* Dow Jones Publication Library [hereinafter Feldman & Salceda].

[33]*See generally* Robert Prentice et al., "Caught in the Web," *Financial Executive* (September/October 1999): 27–28 [hereinafter Prentice (1999b] (providing a brief overview of financial-disclosure legal risks).

Disclosure Liability: Sources and Defenses

Liability from violation of the Securities and Exchange Commission's Rule 10b-5 is central to any discussion of disclosure legal issues.

Rule 10b-5 of the Securities and Exchange Commission

Rule 10b-5 was promulgated by the SEC under authority granted by Section 10(b) of the Securities Exchange Act of 1934 (1934 Act).[34] The 1934 Act states in part:

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce or of the mails . . . [t]o use or employ . . . any manipulative or deceptive device or contrivance in contravention of such rules and regulations as the Commission may prescribe as necessary or appropriate in the public interest or for the protection of investors.[35]

Rule 10b-5 elaborates upon that broad framework with the following language:

> It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails . . .
>
> (a) To employ any device, scheme, or artifice to defraud,
> (b) *To make any untrue statement of a material fact or to omit to state a material fact* necessary in order to make the statements made, in light of the circumstances under which they were made, not misleading, or
> (c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person, in connection with the purchase or sale of any security.[36]

[34] Liability from the Securities Act of 1933 (1933 Act, which primarily governs public offerings of securities) and state statutes in connection with Web site practices is beyond the scope of this report.

[35] 15 U.S.C. § 78j(b) (1999) (LEXIS through 106-49) [hereinafter Section 10(b)].

[36] 17 C.F.R. § 240.10b-5 (LEXIS through Aug. 20, 1999 issue of Federal Register) *(emphasis added)* [hereinafter Rule 10b-5].

The SEC has clearly stated that electronically distributed disclosures are subject to the same requirements as paper-based disclosures.[37] Other portions of the 1934 Act may also trigger liability, including provisions prohibiting insider trading and stock touting. In addition, traditional tort actions such as libel[38] may also be facilitated by undisciplined Web disclosure practices. The most problematic disclosures are often forward-looking statements, frequently in the form of management opinions or financial projections.

The Courts' "Bespeaks Caution" Doctrine Defense

Given the inherent risk involved in forecasting future events, companies have been understandably reluctant to include forward-looking statements or projections in their public disclosures. To encourage balanced forward-looking disclosures, the courts have endorsed the "bespeaks caution" doctrine to shield issuers from liability if a predictive statement—that ultimately proves to be incorrect—includes an appropriate disclaimer. It effectively tells plaintiffs that "you should have known better."

The doctrine generally applies to written, forward-looking statements that are appropriately qualified by reasonable, cautionary language indicating the factors that could cause the predictive statements to prove false. The doctrine, first used in 1977, rapidly gained

[37]*See* Securities and Exchange Commission, "*Use of Electronic Media for Delivery Purposes,*" Securities Act Release No. 33-7233 (October 6, 1995): 4, note 11 [hereinafter Release 33-7233] ("The liability provisions of the federal securities laws apply equally to electronic and paper-based media. For instance, the antifraud provisions of the federal securities laws as set forth in Section 10(b) of the Exchange Act [15 U.S.C. 78j(b)] and Rule 10b-5 [17 CFR 240.10b-5] thereunder would apply to any information delivered electronically, as it does to information delivered in paper. As another example, Section 17(b) of the Securities Act [15 U.S.C. 77q(b)] would apply to any report circulated on the Internet just as if the report were provided in paper.").

[38]*See* Joe Strupp, "Libel Suits Threaten Web Publications," *Editor & Publisher Interactive* (September 30, 1999) (www.mediainfo.com/ephome/news/newshtm/stories/093099n1.htm) (visited October 3, 1999) (stating that "[t]he vast majority of Web publishers are woefully unprotected from libel suits. . . .").

acceptance after the Second Circuit used it in 1986 to dismiss a case as a matter of law[39] and has been adopted by almost all federal courts of appeal.[40]

> In explaining why cautionary language can cause dismissal, two distinct ideas have been expressed by the courts. Some seem to emphasize that the cautionary language so dilutes the disclosure that no reasonable person actually would understand it as an expression of optimism. . . .
>
> [Other] . . . courts suggested that the effect of the cautionary language is to take away the plaintiffs' right to rely on the projections or estimates, optimistic or not. . . . Both address how a reasonable person would react to the disclosures, an inquiry very close to—if not quite the same as—a determination of materiality.[41]

The rather amorphous quality of the doctrine makes a precise definition difficult. The Third Circuit made a noteworthy attempt.

> [W]hen an offering document's forecasts, opinions or projections are accompanied by meaningful cautionary statements, the forward-looking statements will not form the basis for a securities fraud claim if those statements did not affect the "total mix" of information the document provided investors. In other words, cautionary language, if sufficient, renders the alleged omissions or misrepresentations immaterial as a matter of law.[42]

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[39]*See* Richard I. Miller and Michael R. Young, "Financial Reporting and Risk Management in the 21st Century," *Fordham Law Review,* vol. 65, no. 5 (April 1997): 2032 [hereinafter Miller & Young] (listing nine of the twelve Circuits that have adopted the doctrine, noting additionally that the Seventh Circuit has apparently "recognized the validity" of the doctrine, and commenting that "there is no reason to presume the [Supreme] Court would reject it out of hand") (65 Fordham L. Rev. 1987, 2032); c*f.* Basic, Inc. v. Levinson, 485 U.S. 224, 233 (1988) (The Supreme Court has "recognized time and again, [that] a 'fundamental purpose' of the various securities acts, 'was to substitute a philosophy of full disclosure for the philosophy of caveat emptor. . . .'") (quoting SEC v. Capital Gains Research Bureau, Inc., 375 U.S. 180, 186 (1963)).

[40]The District of Columbia Circuit has yet to explicitly adopt the doctrine. *See* Grossman v. Novell, Inc., 120 F.3d 1112, 1120-21 (10th Cir. 1997) (holding that "the 'bespeaks caution' doctrine . . . is a valid defense . . . in the Tenth Circuit" and noting that "every circuit that has addressed the issue has endorsed the doctrine").

[41]Donald C. Langevoort, "Disclosures That 'Bespeak Caution,'" *Business Lawyer,* vol. 49 (February 1994): 487 (footnotes omitted) (49 Bus. Law. 481, 487).

[42]*In re* Donald J. Trump Casino Sec. Litig. - Taj Mahal Litig., 7 F.3d 357, 371 (3d Cir. 1993), *cert. denied,* 510 U.S. 1178 (1994).

Within this general construct, the circuits have applied the bespeaks caution doctrine somewhat differently. Most confine the doctrine to its traditional realm of written, forward-looking statements, although some may apply it "very broadly."[43] A minority have explicitly expanded its use to oral statements[44] or historical errors.[45]

The Reform Act's "Safe Harbor" Defense

Congress has also attempted to encourage corporate disclosure of projections and other "soft" information. As part of the Private Securities Litigation Reform Act of 1995 (Reform Act), which partially codified the bespeaks caution doctrine, Congress provided a statutory "safe harbor" for certain forward-looking statements. The Reform Act provides a defense for particular types of disclosures if a key requirement is met. Forward-looking statements must be "*accompanied* by *meaningful* cautionary statements identifying important factors that could cause actual results to differ materially from those in the forward-looking statement. . . ."[46]

> To be "meaningful," the disclosure of risks relevant to a written forward-looking statement in press releases and other Web postings must not only accompany the statement, but should be tailored to the important risks relevant to its particular subject matter. Generic lists of risks that could apply to virtually any company are not likely to offer protection.[47]

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[43]Robert A. Prentice, "The Future of Corporate Disclosure: The Internet, Securities Fraud, and Rule 10b-5," *Emory Law Journal*, vol. 47 (Winter 1998): 41 [hereinafter Prentice (1998)] (47 Emory L.J. 1, 41).

[44]*See* Prentice (1998), p. 43, note 197 (citing an unpublished 1995 Fourth Circuit opinion and stating that "[a]t least some courts have explicitly extended the doctrine to oral statements") (47 Emory L.J. 1, 43 n.197).

[45]*See* Miller & Young, p. 2035, note 210 (65 Fordham L. Rev. 1987, 2035 n.210); *see also* Prentice (1998), p. 41, incl. note 187 ("Making the defense even more attractive is a recent Fourth Circuit decision extending its reach to misstatements and omissions of historical fact as well as its usual realm of forward-looking information. . . . The [1996] Gasner decision contradicts other circuit court holdings. . . .") (47 Emory L.J. 1, 41 & n.187).

[46]15 U.S.C. § 77z-2(c)(1)(A)(i) and § 78u-5(c)(1)(A)(i) (1999) (LEXIS through 106-49) (statutory language is identical) *(emphasis added).*

[47]Lisa Klein Wager, "Safe Harbors in Cyberspace," *New York Law Journal*, vol. 220, no. 36 (August 20, 1998): 28, col. 1 [hereinafter Wager] (citing the Reform Act's Committee Report (H.R. Conf. Rep. No. 104-369 at 43–44)) (8/20/98 N.Y.L.J. 3 col.1).

Whether a link to the disclaimer language is sufficient to meet the “accompanied by” standard has not been specifically litigated.[48] These safe harbor language requirements also apply to both paper-based disclosures and electronic disclosures. Inadequate paper-based disclaimers, when incorporated into a Web site, almost certainly become inadequate electronic-based disclaimers.

Recklessness versus Knowing Misconduct

The Reform Act also included provisions designed to raise the national standard for a defendant’s required “state of mind” in a securities fraud case. However, the courts are divided on the interpretation of the relevant provisions in the Reform Act. Whether plaintiffs can sue under Section 10(b) for actions that were reckless, but not knowing or intentional, is not conclusively resolved.[49] The courts’ differing interpretations of the required state of mind is exemplified by two recent appellate decisions.

The Third Circuit[50] and the Ninth Circuit[51] agree that the required state of mind was “undisturbed” by Congress when it passed the Reform Act. Both courts then offer a judicial interpretation and refer to the same definition of recklessness contained in

[48]*See* Prentice (1999b), p. 28 (commenting that a “conspicuous hyperlink” is “probably enough” although “no court has yet clearly agreed”); *see also* Wager, p. 28, col. 2 (“[T]he efficacy of hyperlinks to meet the Reform Act’s ‘accompanied by’ requirement has not been approved by the SEC or tested in court. . . .”) (8/20/98 N.Y.L.J. 3 col.1).

[49]The situation is even more muddled with regard to the heightened pleading requirements imposed by the Reform Act. Some circuits have found the statutory language insufficient and have turned to the legislative history of the Reform Act to determine Congress’s intent. Before the Reform Act, the Second Circuit was largely regarded as having the most stringent pleading standard for 10b-5 plaintiffs. When President Clinton vetoed the Reform Act, he said that it was “crystal clear” that Congress intended “to raise the standard even beyond” that of the Second Circuit. This rhetoric may have been an act of political posturing by a President who had yet to have a veto overridden, but some courts have subsequently interpreted the statement quite literally and—given Congress’s subsequent vote to override—imposed a higher standard. *See* 141 Cong. Rec. H15214–15 (daily ed. Dec. 20, 1995) (referencing veto message of H.R. Doc. No. 104-150); *see also In re* Silicon Graphics Inc. Sec. Litig., 1999 U.S. App. LEXIS 23516, at *19–20 (9th Cir. July 2, 1999, amended Aug. 25, 1999) (“Congress further provided very strong evidence of its intent to go beyond the Second Circuit [pleading] standard when it overrode President Clinton’s veto of the PSLRA [Reform Act].”).

[50]*See In re* Advanta Corp. Sec. Litig., 1999 U.S. App. LEXIS 13332, at *23–24 (3d Cir. June 17, 1999) (The Reform Act “was intended to modify procedural requirements while leaving substantive law undisturbed.”).

[51]*See In re* Silicon Graphics at *8 (Congress left the state of mind requirement “undisturbed.”) (quoting *In re* Comshare, Inc. Sec. Litig., No. 97-2098, 1999 WL 460917, at *6 (6th Cir. July 8, 1999)).

a Seventh Circuit opinion.[52] However, they come to different conclusions. The Third Circuit holds that "circumstantial evidence of either reckless *or* conscious behavior"[53] is a sufficient basis for liability. The Ninth Circuit, however, views recklessness as a "form of intentional or knowing misconduct"[54] and holds that the Reform Act requires, "at a minimum, '*deliberate* recklessness.'"[55] Presumably, "non-deliberate recklessness" is not sufficient, as the trial court explicitly held.[56]

The difference is more than semantical. Careless construction of Web pages and indiscriminate links to other sites may be examples of practices that are potentially reckless, but not necessarily deliberate. This extended discussion of recklessness, Section 10(b), and the Reform Act is intended to illustrate the difficulty of predicting the outcome of particular legal issues, even without the added complexities introduced by the Internet. Ultimately, the Supreme Court may weigh in if Congress fails to address the definitional issue. The relevance of the correct interpretation of recklessness,[57] although still in flux, is apparent in the context of analysts' reports, the next topic.

Discussion of Potentially Risky Web Site Practices

As discussed earlier, much of disclosure liability stems from material statements that are later seen as false or misleading or from omissions that have the same effect. A fundamental problem is the failure to adequately invoke the Reform Act's safe harbors by including meaningful cautionary language that accompanies the statements. We also observed certain other Web-based disclosure practices during our research that may pose legal issues beyond generic disclaimer deficiencies.[58]

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[52]*See In re* Silicon Graphics at *11–12; *In re* Advanta at *26 (both citing Sundstrand Corp. v. Sun Chem. Corp., 553 F.2d 1033, 1045 (7th Cir. 1977) (quoting Franke v. Midwestern Okla. Dev. Authority, CCH Fed. Sec. L. Rep. [*] 95,786 at 90,850 (W.D. Okl. 1976)), *cert. denied*, 434 U.S. 875 (1977)).

[53]*In re* Advanta at *25 *(emphasis added).*

[54]*In re* Silicon Graphics at *12.

[55]*In re* Silicon Graphics at *13 *(emphasis added).*

[56]*In re* Silicon Graphics, Inc. Sec. Litig., 970 F.Supp. 746, 757 (N.D. Cal. 1997) (holding that "[m]otive, opportunity, and non-deliberate recklessness . . . are not alone sufficient. . . .").

[57]The SEC's position is similar to the Third Circuit's. *See* John F. Olson et al., "The Perils of *Presstek*: The SEC Addresses Entanglement and Adoption of Analysts' Reports," *INSIGHTS*, vol. 12, no. 3 (March 1998): 7, note 30 [hereinafter Olson] ("The SEC has consistently supported a pure recklessness standard of liability. . . . Chairman Arthur Levitt has indicated that the SEC does not believe that Congress intended that the Reform Act change this standard.").

[58]Another recent study found similar results. *See generally* Robert A. Prentice et al., "Corporate Web Site Disclosure and Rule 10b-5: An Empirical Evaluation," *American Business Law Journal*, vol. 36, no. 4 (Summer 1999): 531–78 [hereinafter Prentice (1999a)] (36 Am. Bus. L.J. 531). Earlier research has also been completed. *See generally* Hollis Ashbaugh et al., "Corporate Reporting on the Internet," *Accounting Horizons*, 13(3): 241-257.

Analysts' Reports

Perhaps the greatest legal hazards are posed by links to analysts' sites or inclusion of analysts' reports on a company's Web site.[59] A company may be held directly liable for material misstatements made to analysts that are later repeated or published.[60] A company may also be seen as "adopting" analysts' statements as its own if it distributes the statements[61] or otherwise indicates that it endorses the analysts' statements.

This practice is hazardous, since the SEC views links to analysts' sites as the equivalent of the company directly transmitting the information.[62] In the Internet context, a company may be deemed to have adopted or endorsed the analysts' statements if it links to analysts' Web sites. The risk of "adoption" liability may also be heightened by the appearance of selectivity if a company includes only a partial list of analysts providing coverage of its stock.

The lack of disclaimer language is especially perilous. "If a company does not include disclaimers warning site visitors that they are about to leave the site, the company can be liable for whatever information is contained in those sites the user links to. . . ."[63] In all cases in which a company makes references to analysts' reports, disclaimers are particularly important to invoke the Reform Act's safe harbor provisions or enable the bespeaks caution defense. The disclaimer should state that the company does not review analyst forecasts for accuracy or consistency with management forecasts and that it does

[59]*Cf.* Philip Scipio, "Easing Homepage Liability," *Investor Relations Business* (February 16, 1998) ("[T]he hottest liability issue surrounding the corporate Homepage doesn't involve the information companies post, but the third-party information they provide on their pages and that they link to.") (reporting on comments by John F. Olson, senior partner of Gibson, Dunn & Crutcher).

[60]*See* Cooper v. Picket, 137 F.3d 616, 624-25 (9th Cir. 1997) ("[S]econdary actors . . . are [not] always free from liability. . . .") (quoting Central Bank of Denver v. First Interstate Bank of Denver, 511 U.S. 164, 191 (1994)).

[61]*See* Olson, p. 2; *see also In re* Cypress Semiconductor Sec. Litig., 891 F.Supp. 1369, 1377 (N.D. Cal. 1995) ("Distributing analysts' reports to potential investors may, depending on the circumstances, amount to an implied representation that the reports are accurate. . . . [This] implied representation . . . is itself actionable."), *aff'd sub nom.* Eisenstadt v. Allen, 1997 U.S. App. LEXIS 9587, at *44-45 (9th Cir. Apr. 28, 1997) (citations omitted).

[62]*See* Release 33-7233, p. 16, example 16 ("This direct and quick [hyperlink] access to ABC's research report would be similar to the Company including the paper version of the research report in the same envelope that it is using to mail the paper version of the preliminary prospectus to potential investors.").

[63]"Corporate Websites: Links to Litigation," *Investor Relations Business* (November 23, 1998): 4 [hereinafter "Links to Litigation"] (reporting on comments by John White of Cravath, Swaine & Moore).

not endorse analysts' reports or their conclusions. Although the effectiveness of disclaimers is uncertain, some commentators are guardedly optimistic about their success.[64]

The technology available to Web site designers only increases the risks. Importing data and images from other sites can be essentially transparent from a user's perspective. One approach is "framing," where a thin border divides a single window on the screen into two (or more) sections. One section, or "frame," displays content from the site listed in the address bar, while another frame can display content from a third-party site.

Another approach is "inlining," which is functionally similar to framing, but without a visible border.[65] Consequently, content that has been "inlined" from third-party sites can be especially difficult for users to discern. Unlike links, which require some action by the user, framing and inlining are automatic. Users may never realize that some of the screen content is not part of the company's site. All of these techniques may tend to cause the viewer to conclude that a company has adopted or endorsed the linked statements, which can result in liability for the statements.

Annual Reports Excerpts

Some companies post financial information that omits one of the primary financial statements or the notes to the financial statements. This practice is contrary to GAAP, which requires that the notes accompany the financial statements. The notes disclose information that "amplifies or explains" the financial statements. "That sort of information is essential to understanding the information recognized in financial statements and has long been viewed as an integral part of financial statements. . . ."[66] "Courts agree with the accounting profession that footnotes are an essential part of financial statements."[67] Consequently, presenting incomplete financial statements may violate Rule 10b-5, which prohibits the omission of necessary material facts.

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[64] *See* Olson, p. 6; Prentice (1998), p. 64 (47 Emory L.J. 1, 64).

[65] *See generally* Brian D. Wassom, Note, "Copyright Implications of 'Unconventional Linking' on the World Wide Web: Framing, Deep Linking and Inlining," *Case Western Reserve Law Review*, vol. 49, no. 1 (Fall 1998): 190–93 (discussing the technical distinctions among linking, framing, and inlining) (49 Case W. Res. 181, 190–93).

[66] Financial Accounting Standards Board, FASB Concepts Statement No. 5, *Recognition and Measurement in Financial Statements of Business Enterprises* (Norwalk, Conn.: FASB, 1984), par. 7(a).

[67] Prentice (1999a), p. 560, note 96 (citing Davis v. Dawson, Inc., 1998 U.S. Dist. LEXIS 10943, at *103 (D. Mass. Feb. 12, 1998)) (36 Am. Bus. L.J. 531, 560 n. 96).

The problem is compounded if the auditors' report accompanies financial statements that are incomplete or devoid of notes.[68] Although companies did not *explicitly* state that their financial reports were GAAP-compliant, the auditors' report does make such a statement.[69] Consequently, readers may mistakenly believe that they are viewing GAAP-compliant financial statements. Unresolved issues arise if auditors knowingly let a client include the auditors' report—with incomplete financial statements or absent notes—on the client's Web site.[70] One study examined the implications of *excluding* the auditors' report from the financial information.[71]

Numerous other potential differences exist between the paper and electronic versions of the financial statements. Even simple navigational aids, such as forward and back buttons, may disrupt or compromise the necessary integrity of the financial statements. The electronic equivalent to a printed index is another open question. The materiality of these differences from the printed material, from a judicial standpoint, has not been determined.[72]

Transcripts of Conference Calls and Speeches

Transcripts are an area where the media matters. Oral statements are subject to a much lower disclaimer standard than written material. Under the Reform Act's safe harbor, the speaker need only identify the oral statements as forward-looking and refer to a readily available document that contains the appropriate disclaimer language. The oral charac-

[68]The Working Group documented 65 (of 99) Web sites that contained an auditors' report. Of those sites, 31 presented incomplete or summary financial statements, 5 lacked notes accompanying the financial statements, and 2 presented incomplete or summary financial statements that were unaccompanied by notes.

[69]*See*AICPA Professional Standards, AU 508.08 ("In our opinion, the financial statements referred to above present fairly . . . [an entity's financial statements] in conformity with generally accepted accounting principles.").

[70]*See* Michael G. Stevens, "Financial Information Is Flooding the Internet," *The Practical Accountant* (February 1999): 24 (stating that "there is no additional [professional] responsibility for statements put on a client's Web site," but that "potential legal liability" is "a concern") (quoting Kim Gibson, AICPA technical manager); AICPA, "Practice Alert 97-1," *The CPA Letter* (January/February 1997) (discussing interpretation of AU 550); AICPA Professional Standards, AU Section 9550, "Other Information in Documents Containing Audited Financial Statements: Auditing Interpretations of Section 550 (March 1997), par. 4.17 ("Electronic sites . . . are not 'documents,' as that term is used in section 550. . . . [A]uditors are not required by section 550 to read information contained in electronic sites. . . .").

[71]*See generally* Michael Ettredge et al., "Accounting Information at Corporate Web Sites: Does the Auditor's Opinion Matter?" University of Kansas (February 1999) (unpublished manuscript) (concluding that going concern modifications to the auditor's report decrease the odds of its inclusion on the Web site).

[72]*See* Stevens, p. 25 (speculating about duty to "ensure" that online statements are "exactly the same" as the paper versions and noting the absence of "existing case law in this area" (quoting Ira R. Hecht, Internet and computer law attorney)).

ter of these statements—and the lower disclaimer requirements—may be lost, however, when they are transcribed and appear in written form.[73] Additionally, accompanying materials, "such as slides containing projections and goals, should not be posted without modification to invoke the safe harbor."[74] Companies that post transcripts of press conferences and speeches on their Web sites without regard to these issues may be taking unnecessary risks.

Companies might simplify disclosure requirements by providing only an audio version of speeches and calls. Some experts frown on this approach, however. "Companies should treat everything as written, and just have the disclaimers there anyway. . . . The SEC has drawn an arbitrary line because audio versions can still be copied."[75]

Almost Innocuous Web Site Practices

Some Web site practices would seem at first blush to be rather benign, given their widespread use or the general nature of the content provided. While generally true, legal issues still lurk in the background.

Press Releases and Complete Financials

The language of Rule 10b-5 clearly establishes a duty to correct material errors in prior disclosures. Some courts have gone beyond a "duty to correct" and have recognized a "duty to update."[76] A recent court ruling stated:

> It is now clear that there is a duty to correct or revise a prior statement which was accurate when made but which has become misleading due to subsequent events. This duty exists so long as the prior statements remain "alive." . . .

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[73]*See* Wager, p. 28, col. 2 ("There is a risk that the safe harbor governing oral statements will be lost if they are converted to written statements. . . .") (8/20/98 N.Y.L.J. 3 col.1).

[74]Wager, p. 28, col. 2.

[75]"Links to Litigation," p. 5 (quoting Joseph Grundfest, law professor at Stanford University). *But see* Wager, p. 28, col. 2 ("A company can avoid this [disclaimer] problem . . . by posting an audio or video clip of an oral presentation. . . .") (8/20/98 N.Y.L.J. 3 col.1).

[76]*See In re* Phillips Petroleum Sec. Litig., 881 F.2d 1236, 1245 (3d Cir. 1989) (stating that "notice of a change of intent [must] be disseminated in a timely fashion"); *In re* Time Warner Inc. Sec. Litig., 9 F.3d 259, 267 (2d Cir. 1993) (stating that "a duty to update opinions and projections may arise if [they] have become misleading as the result of intervening events"), *cert. denied*, 511 U.S. 1017 (1994).

> . . . [A] "particular duty to correct a specific prior statement exists as long as traders in the market could reasonably rely on the statement."[77]

The duty to update intensifies the need for periodic site review. All material should be examined; site managers should also consider segregating older and potentially stale material in an archival area in order to clearly indicate that old materials are for historical interest only and are not "alive" in the market. Companies should also try to avoid general Web site notices that suggest that information is routinely updated, such as "updated as of . . ." or "Current Press Releases." Appropriate disclaimer language can also be added that specifically disclaims any responsibility to update Web site postings.

News Articles and Product Information

News articles and information about company products may present a dual danger: stale information and a forward-looking statement. Such information carries with it the need for disclaimers and monitoring. Seemingly innocent product hype can turn into litigation language if the product hype can be construed as hyping a company's stock rather than its products.[78]

> [A]ttorneys who have previously combed annual reports, 10-Qs, 8-Ks, etc. for overly optimistic statements following a reported drop in earnings, now have a similarly powerful incentive to scrutinize earlier product announcements and product press releases when product performance does not measure up to product hype or when products do not hit the market when promised.[79]

In some cases the best course of action is to avoid the potential litigation entirely. If the company's Web site contains an article stating that a "product will take off and change the industry model, . . . a lot of disclaimers still may not be enough if the product flops, and the company knew [about] problems and did not do anything. . . ."[80] One solution

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[77]Ross v. A. H. Robins Co., Inc., 465 F.Supp. 904, 908 (S.D.N.Y. 1979) (citing A. Jacobs, The Impact of Rule 10b-5 § 88.04(b) at 4–14 (rev. 1978) and quoting 2 A. Bromberg, Securities Law, Fraud, § 6.11(543) (1977)), *rev'd on other grounds,* 607 F.2d 545 (2d Cir. 1979), *cert. denied,* 446 U.S. 946 (1980) (citations omitted).

[78]*See generally* Feldman & Salceda (under heading "Where the Plaintiffs Will Look").

[79]Robert A. Prentice and John H. Langmore, "Beware of Vaporware: Product Hype and the Securities Fraud Liability of High-Tech Companies," *Harvard Journal of Law & Technology,* vol. 8, no. 1 (Fall 1994): 3 (8 Harv. J. Law & Tech. 1,3).

[80]"Links to Litigation," p. 5 (quoting Linda Quinn of Sherman & Sterling and former director of the SEC's Division of Corporation Finance).

may be to place all investor relations material in one Web site location, so that product marketing materials are clearly segmented and not confused with investor disclosures.

Other Web Site Legal Issues

Security Breaches

Some risks originate externally and are almost entirely divorced from internal content. Security breaches are a prime example. Hackers and their more nefarious cousins, crackers, can wreak havoc upon a Web site. Corporate insiders and trusted individuals are also responsible for a substantial portion of security breaches. Reliable statistics are elusive since the "FBI estimates that 95% of intrusions are never detected."[81]

One of the legal risks is that any conduct *that allowed a breach* in the first place could be deemed to be negligent or, more importantly, even reckless. If hackers placed information on the site that was materially misleading, Section 10(b) and Rule 10b-5 are suddenly potential issues. "The fact that [financial statements] can be changed in cyberspace adds a whole new wrinkle."[82] Considering that hackers often breach a site just to post evidence of their "achievement,"[83] damaging information is a real possibility. Some hackers are realizing the profit potential of misinformation, increasing the odds of a destructive breach.[84]

Chat Rooms

Chat rooms have become the electronic equivalent of the water cooler. They are an easy place to gather[85] and casually exchange information—sometimes too casually. The perceived anonymity that users feel when tapping away alone at their keyboards is sharply at odds with the extraordinary permanence of their communications. Long after the pre-

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[81] Steven Schall, "The Enemies Within," *Enterprise Systems Journal* (May 1999): 65; *see* Jason Fry et al., "Tech Week in Review: Hotmail Glitch and Old Flaws," *Dow Jones News Service* (September 3, 1999) ("Researchers, hackers and (unfortunately) crackers too are constantly testing, poking and prodding software systems in search of vulnerabilities."). *See generally* J. F. Bond, "Enter the Cracker, a Hacking Hit Man: Nasty, Costly," *National Post* (September 20, 1999): E01 (describing damage from electronic security breach).

[82] Stevens, p. 25 (quoting Peter Frank, partner in accounting firm of Frank & Zimmerman).

[83] *See* Roberto Suro, "Hackers Who Do Not Quit," *Computer Currents* (September 2, 1999) (www.currents.net/newstoday/99/09/02/news8.html) (visited September 2, 1999).

[84] *See* John Simons, "How a CyberSleuth, Using a 'Data Tap,' Busted a Hacker Ring," *The Wall Street Journal* (October 1, 1999): A1, col. 6 (hacking for profit, not just fun).

[85] *See* "IR in a Changing World: Providing Access," *Investor Relations Business* (April 12, 1999): 4 ("They are flocking to Motley Fool, Silicon Investor, Yahoo! and other Internet sources.") (quoting Louis M. Thompson, Jr., president of National Investor Relations Institute).

cise words around the water cooler would have been forgotten, an electronic "transcript" of a chat room "conversation" probably resides on a computer drive.

Employees in chat rooms may respond to a slur aimed at the company and, to add credibility to their comments, identify themselves as employees. Such a response is likely to be deemed to be a corporate disclosure, which can trigger several problems. First and foremost, a statement by an untrained employee regarding company trends and products is likely to include inaccuracies. Also, the chat room comment is likely to be devoid of any required cautionary language and will not be protected by the Reform Act's safe harbor. An official corporate response is also problematic because it may lend credibility to idle rumors and conflict with a company's policy not to comment on rumors.[86]

The advice for employers is simple: "Don't let employees get in chat rooms any more than you would let them talk to a reporter. . . ."[87] Unfortunately, the problems springing from chat rooms can have a chilling effect on electronic information in general.[88]

Global Implications

There are indications that other countries are not waiting to follow the United States' lead, but are instead formulating their own positions on Internet disclosures. The French equivalent to the SEC, the Commission des Opérations de Bourse, recently issued a nine-point recommendation list on electronic disclosures of financial information.[89] Its recommendations include providing the date of the last posting for each page, clearly identifying extracted documents as such, and stating sources for all information. According to the recommendation list, companies are "not responsible" for information on linked sites if adequate disclosures are provided.

[86] *See* Robert J. Simmons and Tyler M. Thatcher, "Killing 'Trickle-Down' IR with Technology," *TMA Journal* (July/August 1999): 10 ("Posting an official correction one time can create the appearance of an implicit endorsement of all future postings that do not prompt a response from the company.").

[87] "Employees Shouldn't Discuss Company in Chat Rooms," *Investor Relations Business* (November 23, 1998): 1 (quoting Alan Austin, defense attorney with Wilson Sonsini Goodrich & Rosati).

[88] *See* Amey Stone, "Analyst Calls: Let Investors Listen," *Business Week* (May 24, 1999): 111 ("[S]ome companies feel 'under siege' from online investors. The rampant misinformation in chat rooms . . . makes execs wary of anything that smells of cyberspace.") (quoting Mark Coker, founder of BestCalls.com, a guide for online earnings conferences).

[89] *See* Commission des Opérations de Bourse, "The COB's Recommendation Relating to the Distribution on the Internet of Financial Information by Listed Companies," Press Release (May 3, 1999) (unofficial translation).

The Australian government has also been progressive, particularly with regard to jurisdiction.[90]

> Australia takes a broader approach when asserting its regulatory authority over the Internet than the United States. . . . Australian law now provides that an e-mail to Australian investors, or an offer on a foreign web site that is accessible within Australia, is subject to Australian registration requirements.
>
> Although the ASIC [Australian Securities and Investments Commission] concedes that it will grant exemptions to foreign issuers on the Internet, the ASIC still requires the issuer to indicate clearly that Australian investors will not be accepted.[91]

These events underscore the need for American regulatory bodies to reexamine whether the existing framework of regulations, designed for a print world, are sufficient to meet the demands of an electronic world.

Dynamic Information and Legal Issues

Some of the issues on electronic business information are unique to the electronic domain. No equivalent issue exists in the print medium. These are areas that regulators will have to address creatively and go beyond print analogies.

Timing of Information Updates

Coordinating dual channels of information disclosure is one area of regulatory action. The Nasdaq recently stated that Web site postings should not preempt disclosure to traditional outlets, such as Dow Jones, Reuters, and Bloomberg. "Nasdaq fully supports companies' use of Internet home pages to disseminate information to shareholders [and the media], but the Internet must not be a substitution for traditional dissemination. . . ."[92]

The Toronto Stock Exchange, Nasdaq's Canadian counterpart, has a similar preemption disclosure requirement. Nasdaq also requires 10 minutes advance notice of any postings

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[90]*See generally* Adam Creed, "Net Legal Issues Need Consensus," *Computer Currents* (September 7, 1999) (www.currents.net/newstoday/99/09/07/news7.html) (visited September 7, 1999) (Australian attorneys speak on importance of transnational jurisdiction issues).

[91]David M. Cielusniak, Note, "You Cannot Fight What You Cannot See: Securities Regulation on the Internet," *Fordham International Law Journal*, vol. 22 (December 1998): 638 (22 Fordham Int'l L.J. 612, 638) (footnotes omitted).

[92]"NASD Rules on Internet Disclosure," *Investor Relations Business* (March 1, 1999): 1 [hereinafter NASD] (quoting National Association of Securities Dealers).

or releases that might move the market.[93] The New York Stock Exchange does not have a similar preemption or advance notice rule.

Real-Time Business and Financial Reporting

The electronic revolution has thus far primarily accelerated the *delivery* of business information.[94] In contrast, the acceleration of the *generation* of business information has received relatively little attention. That is likely to change. Aside from the disclosure implications, a shift to real-time reporting would also have profound effects upon the auditing profession.[95]

> [E]ventually most SEC-mandated public company financial statements will be online. . . . [T]he push toward real-time information will continue until ticking and tying historical data are a thing of the past. I foresee statements being available online in real time with the audit attestation being on the same system that the company uses to produce and provide the information. Like it or not, I think all auditors eventually will be information systems auditors.[96]

The current distribution cycle of business information already poses knotty legal issues. The issues stemming from real-time reporting are daunting. The current regulatory framework does not accommodate information that is truly transitory. The concept of warning screens and information contracts has been proposed as a regulatory solution.

> The Web site warning [screen] could also note that investors agree to limit a company's liability if they proceed to the current financial data. The warning could potentially shift the type of claims investors could bring from a tort action for negligently releasing untrue information to a contract matter.

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[93] *See* NASD, p. 1.

[94] *See generally* Ross A. Kaplan, "Identity Crisis for Online Annual Reports," *Financial Executive* (July/August 1999): 38 (noting that the Web is "vacuuming" information and "circulating it faster").

[95] *See* Stevens, p. 26 (noting that some "people in the Big Five [accounting firms] think it's crazy to audit . . . months after the year closes," ultimately leading to audits of "live numbers") (quoting Laurence Zuckerman, former editor-in-chief of *The Electronic Accountant*).

[96] Richard J. Koreto, "When the Bottom Line Is Online," *Journal of Accountancy* (March 1997): 65 (quoting Michael G. Edwards, internal auditor at BB&T Bank) (3-97 J.A. 63, 65).

> If investors go beyond the liability warning and access the information, "at that point, they've arguably entered into a contract. . . . Their ability to sue later is compromised to that extent."[97]

Real-time reporting under current technology, however, may deliver more data but not necessarily more information. GAAP requires numerous, and sometimes intricate, refinements to raw ledger balances. These adjustments are currently beyond the capabilities of any practical real-time reporting system. Careful thought should be given to the impact of making more current, but less consistent, information available to investors.

Logs and Recordkeeping

Even if the day of real-time reporting has not yet arrived, the issue of simple recordkeeping and data logs is critical. Investors file lawsuits based upon particular disclosures contained in specific documents. Electronic documents are no exception. Detailed logs and site recordkeeping will increase a company's ability to reconstruct the site contents for any moment in time.

Interactive Information

Data modeling carries the concept of transitory data to its logical extreme. Companies provide site visitors with actual financial statements and the ability to test "what-if" scenarios. The possible information sets are endless. The legal danger is that these infinite "what if" scenarios could possibly become infinite forward-looking statements. How courts would view that argument is unknown.

Strategies to Reduce Legal Risks

The Working Group's research has noted several Web site practices that are potentially risky. Many of these issues will be resolved with the passage of time, as the legal system strives to catch up with the furious pace of technological change. "Custodians of the law need time to witness the workings and the social implications of each innovation. . . . [If necessary, they will] alter incompatible legal structures to meet the new needs of evolving products and processes."[98]

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[97] Dominic Bencivenga, "Investors Push for Real-Time Data on Internet," *New York Law Journal* (May 7, 1998): 5, col. 3 (quoting Michael R. Young, partner at Willkie Farr & Gallagher) (5/7/98 N.Y.L.J. 5 col.3).

[98] Steven R. Salbu, "Who Should Govern the Internet?: Monitoring and Supporting a New Frontier," *Harvard Journal of Law and Technology,* vol. 11, no. 2 (Winter 1998): 474 (11 Harv. J. Law & Tech. 429, 474).

Until that happens, "[t]he piecemeal regulation of this area has created land mines that warrant early involvement of experienced securities counsel."[99] Most Internet-related issues have little or no appellate decisions to fill the case law vacuum. New case law requires new test cases—something most companies would rather let someone else provide.

The following are a few generally recognized strategies to reduce the legal risks from electronic disclosures, particularly those associated with Web sites.[100] Readers should, of course, consult their own legal counsel for the legal implications of their particular circumstances.

- Provide meaningful cautionary disclaimers that accompany any forward-looking statements. Remember that transcripts of speeches and press conferences should be treated as written disclosures and must include the appropriate written disclaimer. The disclaimer language and/or the link to the disclaimer should be as visually close as possible to the forward-looking statement.
- Use all links with caution. Do not link to (or frame/inline) analysts' sites or include analysts' comments on the company's site. If a list of analysts covering the company is provided, include the names of all analysts, not just those with favorable comments.
- Include a full set of financial statements and notes. Any navigational aids should increase the integrity of the statements.
- Avoid any duty to update disclosures. Monitor the site for any information that is stale or outdated. Add appropriate disclaimers regarding the absence of any duty to update and move any historical press releases to a segregated archive section.
- Reevaluate system security measures.
- Establish policies for employee participation in chat room discussions about their employer.

"There is one final 'don't' that cannot be overemphasized. Don't shy away from the Web for fear of the securities laws. Instead, understand the risks and seize the initiative."[101]

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[99]Blake A. Bell, "Corporate Web Sites and Securities Offerings," *New York Law Journal* (May 21, 1998): 7, col. 1 [hereinafter Bell] (5/21/98 N.Y.L.J. 5 col.1).

[100]*See generally* Feldman & Salceda, (under heading "Preventative Measures"); Prentice (1999b), pp. 27-28; Prentice (1998), pp. 26-80 (47 Emory L.J. 1, 26-80); Wager, pp. 3, 28 (8/20/98 N.Y.L.J. 3 col.1); Prentice (1999a), pp. 550-69 (36 Am. Bus. L.J. 531, 550-69); Bell, p. 7, cols. 1-3 (5/21/98 N.Y.L.J. 5 col.1) (all providing guidance on reducing Web-related legal risks).

[101]Bell, p. 7, col. 3 (5/21/98 N.Y.L.J. 5 col.1).

APPENDIX

The exhibits listed below are contained on the following pages:

Exhibit 1—Percentages of General Attributes

Attributes	Percentage[102]
Text-only alternative available	10
States minimum required browser	16
Version 3.0 and above	12
Other browser requirements	5
States language requirements	14
Java	12
JavaScript	4
ActiveX	3
Graphic images	100
Animated graphics	47
Sound files	7
Video files	6
Advertisements for their own products or services	84
Advertisements for another companies' products or services	21
Links to product and sales information	74
Goods or services sold online (electronic commerce)	47
Their own primary goods or services	42
Promotional items (e.g., t-shirts)	13
Other companies' products	14
Electronic commerce assurance logos or seals	7
Table of contents (or site index)	88
Search box (or link to search page)	64
Page divided into frames	26
News summaries	42
Links to news summaries or press releases	87
Latest stock price on home page	27
Link to investor relations	67
Direct link to annual report on home page	22
Multiple languages or countries	21

[102] These percentages are based on the 99 companies that had Web sites.

Exhibit 2—Percentages of Investor Relations/Financial Information (General) Attributes

Attributes	Percentage[103]
Latest stock price	57
E-mail address to investor relations	56
Phone number to investor relations	62
Postal address to investor relations	54
Graphic images	94
Animated graphics	16
Sound	4
Video	2
Proxy statement in investor relations area	23
Links to SEC's EDGAR	68
Form 10-K	68
Form 10-Q	66
Form 8-K	55
Annual report contents/design	—
Table of contents	71
Alphabetical index	11
Site map	20
Next/previous buttons to navigate sequentially	42
Annual report formats	—
HTML (a normal Web page)	77
Full annual report in HTML	59
PDF (requires Adobe Acrobat)	61
Word processor	12

[103]These percentages are based on the 93 companies that had financial Web sites (i.e., 93 = 100%).

Exhibit 3—Percentages of Annual Report Attributes[104]

	Answer to Question	Hyperlinks inside/outside Annual Report	Photos	Financial Charts or Graphs	Other Graphics/ Animated	Sound	Video
Chairman's message to shareholders	80	30	58	24	14		1
Signature	59	—	—	—	—	—	—
Management discussion and analysis (MD&A)	61	29	5	24	6		
Company profile	69	25	24	20	14		
Customer profile	31	5	14	4	4		
Employee profile	32	11	18	3	3		
Market outlook	37	11	13	10	5		
Corporate citizenship	34	14	17	5	5		
Vision statement	38	9	6	4	2		
Financial highlights/summary	78	23	6	45	5		
Number of years shown	1 to 11 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	22	—	—	—	—	—	—
Downloadable spreadsheet	14	—	—	—	—	—	—
Share price performance	47	11	4	23			
Narrative	18	4	3	4	1		
Consolidated statement of operations	54	19	3	22	4		
Number of years shown	1 to 10 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	15	—	—	—	—	—	—

Financial review/overview (narrative)	45	12	8	19	4		
Statement of financial position (balance sheet)	74	27	3	17	6		
Number of years shown	1 to 10 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	17	—	—	—	—	—	—
Downloadable spreadsheet	16	—	—	—	—	—	—
Statement of income or earnings (or operations)	70	26	2	17	4		
Number of years shown	1 to 10 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	17	—	—	—	—	—	—
Downloadable spreadsheet	16	—	—	—	—	—	—
Statement of cash flows	70	26		16	3		
Number of years shown	1 to 10 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	15	—	—	—	—	—	—
Downloadable spreadsheet	15	—	—	—	—	—	—
Statement of shareholders' equity	66	20		14	1		
Number of years shown	1 to 10 yrs	—	—	—	—	—	—
F/S as graphic (e.g., GIF, JPG)	14	—	—	—	—	—	—
Downloadable spreadsheet	14	—	—	—	—	—	—
Notes to financial statements	63	24		15	3		
Statement of management responsibility	56	11	1	2	1		
Includes signatures	35	—	—	—	—	—	—

[104] These percentages are based on the 93 companies that had financial Web sites (i.e., 93 = 100%).

Exhibit 3—Percentages of Annual Report Attributes—continued

	Answer to Question	Hyperlinks inside/outside Annual Report	Photos	Financial Charts or Graphs	Other Graphics/ Animated	Sound	Video
Auditor's report	65	14		2	3		
Included auditor's signature	46	—	—	—	—	—	—
Segmental report	28	6		6	3		
F/S as graphic (e.g., GIF, JPG)	9	—	—	—	—	—	—
Cross-reference to Form 10-K	14	8		1	1		
Quarterly statements	52	17	2	11	2		
Board of directors and officers	73	16	22	4	4		
Names	71	—	—	—	—	—	—
Profiles or biographies	31	—	—	—	—	—	—
Closing/general materials (e.g., addresses, transfer agents)	59	20	1	1	1		

Exhibit 4—Percentages of Other Attributes

Other Annual Report Features	Percentage
Techniques to let users know they are inside annual report as they move from page to page	33
Colored or graphic borders	31
Background colors or graphics	23
Dialog box that pops up to indicate that the user is leaving the annual report	4
Search box	29
Link to SEC's EDGAR database in the annual report	16
Separate area where financial statements can be downloaded in spreadsheet format	14
Years available	1 to 10 yrs

Other Elements in Financial and Business Reporting Web Pages Not in Annual Report Itself	Percentage
Press releases	67
Proxy statements	41
Analysts' reports or links to analysts who follow the company's stock	17
Factbooks or other information supplied to analysts	17
Latest stock price	57
Financial ratios, key statistics, or other information presented apart from the annual report	34
Graphing or other analysis tools that users can tailor to their own use	14
Links to data on a third-party's Web site	18
Quarterly reports	57
Specific Form 10-Q	26
Downloadable	15
Special filings (like Form 8-K) with the SEC or other regulators	20
Monthly or weekly sales or operating data	12
Financial information in alternative formats, for example, presentation of information using accounting conventions, formats, or currencies from other countries	6
Industry statistics or data	13

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