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Future Directions in Corporate Disclosure on Digital Responsibility

JORDAN FAMULARO

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Executive Summary

TECHNOLOGY COMPANIES, EQUITIES INVESTORS, AND CIVIL SOCIETY ORGANIZATIONS ARE ACTIVELY SHAPING THE PRESENT AND FUTURE OF CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY.

From controversies about bias in artificial intelligence systems, to critical vulnerabilities in commercial software, to privacy concerns about businesses that share customers' personal data, calls for companies to account for their digital activities have never been louder. Many companies now report publicly on a range of technology topics, such as privacy, artificial intelligence (AI), cybersecurity, and data governance. Companies typically link this information to one or more of their website pages, with headings such as investor relations, corporate responsibility, ESG (environmental, social, and governance), and/or sustainability.

What these communications have in common is corporate disclosure, i.e., reporting by companies to their external stakeholders, whether financial or nonfinancial information, voluntary or statutory. Yet the norms that would guide such disclosure on digital topics are swiftly shifting, shaped by factors such as changes in regulation, investor expectations, corporate strategy, and pressure from advocacy organizations.

We interviewed 22 professionals across equities investing, technology companies, and civil society to identify organizational dynamics that enable or hinder corporate disclosure on digital responsibility. We use the phrase “corporate disclosure on digital responsibility” to refer to voluntary and statutory communication by which companies make their investors, customers, and the public aware of pertinent information about the firm’s digital technology practices, policies, oversight, and outcomes.

We found three key factors that **drive** corporate disclosure on digital responsibility:

- Institutional investors use corporate disclosure on digital responsibility because of its materiality for investment performance, and because it informs active ownership, i.e., use of shareholder power to influence corporate behavior.
- Regulators’ recent focus on investor concern with sustainability and evolving risk is widening the aperture on information that should be disclosed, capturing some dimensions of digital responsibility.
- Third-sector organizations — particularly those focused on digital rights, human rights, and corporate accountability — engage with companies to press for more disclosure.

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ON DIGITAL RESPONSIBILITY

We found three key factors that **block** or **slow** corporate disclosure on digital responsibility:

- Disclosure on digital responsibility lacks a single standardized format, reflecting a broader issue in corporate disclosure.
- Digital responsibility topics bear measurement problems similar to those of other social and governance topics, such as difficulties in auditing long value-chains and in quantifying relevant aspects of corporate culture, whistle-blowing, and social effects of corporate performance.
- Reporting burdens have become a notable concern for firms, as they are asked to respond to pro-forma questions on a range of environmental, social, and governance issues by ESG research firms, ratings agencies, and investors.

This report explores in-depth results from the interviews to offer decision-makers in the private and public sectors deeper perspectives on how corporate reporting norms evolve, and on how key actors can make disclosure on digital responsibility effective toward meeting corporate, capital markets, and societal priorities.

Introduction

Over the past three decades, the world has seen exponential growth in companies' reporting of environmental, social, and governance (ESG) data, such as carbon emissions, workforce demographics, and board diversity. Yet less critical attention has been paid to the rise of corporate reporting on digital responsibility, which cuts across social and governance topics.

How companies collect, manage, secure, and share data has become an essential dimension of corporate behavior in the 21st century. Digitalization and the rapid development of new technologies have driven new business models and generated a data economy that profoundly affects modern life at home, school, and work. Data privacy, artificial intelligence, cybersecurity, and inclusive access to technology represent some of the latest topics to enter public dialogue about acceptable business conduct. Underlying these topics are fundamental choices made by companies about how to manage data at an ever-growing scale.

There is much debate about what constitutes “digital responsibility” and to whom companies should be accountable. These questions partially spur increased demand for transparency from companies about digital technology practices, oversight, and impacts. One communication channel where these calls are seeing remarkable growth is corporate disclosure, i.e., reporting by companies to their external stakeholders, whether of financial or nonfinancial information, voluntary or statutory. In this report, we use the phrase “corporate disclosure on digital responsibility” to refer to voluntary and statutory communication by which companies make their investors, customers, and the public aware of pertinent information about the firm's digital technology practices, policies, oversight, and outcomes. Topics vary widely, from data collection to privacy policies to human rights assessment to employee training on cybersecurity.

Corporate disclosure on digital responsibility has changed significantly since the issuance of the first transparency report by Google in 2010,¹ a landmark move that helped propel tech companies into wider debates about regulated and voluntary disclosures. Many companies now report across their own websites on a range of technology topics, such as privacy, artificial intelligence (AI), cybersecurity, and data governance. Companies typically link this information to one or more of their website pages, with headings such as investor relations, corporate responsibility, ESG, and/or sustainability.

¹ David Drummond, “Tools to Visualize Access to Information,” Google Official Blog, September 20, 2010, <https://googleblog.blogspot.com/2010/09/tools-to-visualize-access-to.html>.

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With input from stakeholders like investors and civil society, companies have also begun to report on more granular technology topics, such as facial recognition.² The article “Your Face is the Next Frontier in ESG Investing,” published in *Bloomberg Finance*, signaled new ground by covering institutional investors who put pressure on tech firms over facial recognition technology and related disclosures.³ The article reported on a group of 53 global institutional investment firms and their representatives, overseeing more than \$4.5 trillion in assets at the time, that pledged to encourage companies in which they invest to demonstrate that they have established human rights policies and due diligence for all their facial recognition technology activities.⁴ The ask included requests for a number of specific disclosures, such as the sources of their image databases.

There is no universal prescription for companies on how to publish information about digital responsibility, although guidance can be found in a patchwork of guidelines and regulations around the globe. Beyond written guidance, however, a lively network of actors — including large-cap companies, investors, standard-setting bodies, civil society organizations, and regulators — are actively shaping norms about what companies should report in corporate disclosure on digital responsibility. Better understanding of the dynamics among these actors can offer decision-makers in the private and public sectors deeper perspectives on how corporate reporting norms evolve, and on how key actors can make disclosure on digital responsibility effective toward meeting corporate, capital markets, and societal priorities.

Few academic studies have examined the organizations and processes that contribute to norms around what should be reported in corporate disclosure on digital responsibility.⁵ This research addresses this gap. As several of the factors we examine would be difficult to

2 See, for example, Baidu, “Baidu Special Report on Data Security, Privacy Protection, and Content Management,” (2020), available at <https://esg.baidu.com/en/report/ESG-Reports> [discussing facial recognition technology at p. 27].

3 Mark Gilbert, “Your Face is the Next Frontier in ESG Investing,” *Bloomberg Finance* (June 20, 2021), <https://www.bloomberg.com/opinion/articles/2021-06-21/first-climate-change-now-ai-big-investors-put-pressure-on-facial-recognition?sref=QeKSsM7M>.

4 Candriam, “Investor Statement on Facial Recognition,” (June 10, 2021), https://www.candriam.com/fr/professional/SysSiteAssets/campagne/facial-recognition/2021_06_investor_statement_en_final.pdf.

5 Peter Micek and Deniz Duru Aydin, “Non-Financial Disclosures in the Tech Sector: Furthering the Trend,” in *The Responsibilities of Online Service Providers*, ed. M. Taddeo and L. Floridi (Springer, 2017), 241–61; Robert Gorwa and Timothy Garton Ash, “Democratic Transparency in the Platform Society,” in *Social Media and Democracy: The State of the Field, Prospects for Reform*, edited by Nathaniel Persily and Joshua A. Tucker, SSRC Anxieties of Democracy (Cambridge: Cambridge University Press, 2020), 286–312; Camille François and evelyn douek, “The Accidental Origins, Underappreciated Limits, and Enduring Promises of Platform Transparency Reporting about Information Operations,” *Journal of Online Trust and Safety* 1, no. 1 (2021): 1–30; Jordan Famularo, “Corporate Social Responsibility Communication in the ICT Industry: Digital Issues, Greenwashing, and Materiality,” unpublished manuscript (on file with author).

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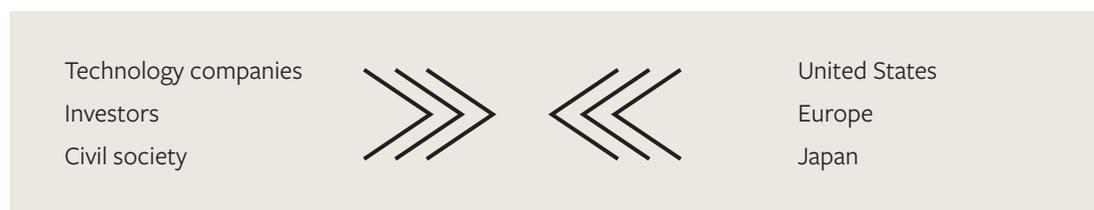
explore with archival data, we use interviews with professionals working “on the ground” as an approach to exploring conditions within and between organizations.

PURPOSE

The objective of this study is to examine institutional relationships and processes among corporations, investors, and civil society that contribute to the shaping of corporate disclosure on digital responsibility. Through interviews, the research investigates institutional dynamics that affect corporate disclosure on digital responsibility, including processes and social relationships *between* organizations and *within* individual organizations.

SCOPE

A driving assumption in this research is that publicly listed technology companies are subject to high external scrutiny regarding corporate digital responsibility compared to public firms in most other sectors. We broadly define the technology sector to include businesses that sell goods and services in electronics, software, computers, artificial intelligence, and other activities related to information and communication technology.⁶ The premise is not that tech companies are exceptionally highly regulated. (Compared to financial services or healthcare, they are not.) Rather, a growing wave of critical voices are questioning “tech exceptionalism,” an argument rooted in an ideology that tech companies merit a different set of rules and responsibilities than the rest of private industry.⁷ The study therefore focuses on large-cap, public tech companies (with market capitalization of more than \$10 billion) and institutions that shape norms guiding tech companies’ corporate disclosures. We spoke with professionals from three categories of organization and three geographies:



⁶ Compare the definition in Jake Frankenfield, “Technology Sector: Definition, 4 Major Sectors, Investing in Tech,” *Investopedia*, updated January 2, 2022, https://www.investopedia.com/terms/t/technology_sector.asp.

⁷ Yaël Eisenstat and Nils Gilman, “The Myth of Tech Exceptionalism,” *Noema Magazine* (February 10, 2022), <https://www.noemamag.com/the-myth-of-tech-exceptionalism/>.

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The guiding research questions are:

RQ1: Which disclosure topics fall within the universe of corporate disclosures on digital responsibility that are produced or expected by key players?

RQ2: Which processes **enable** corporate disclosure on digital responsibility?

RQ3: Which processes **impede** corporate disclosure on digital responsibility?

This report brings together insights from investors, tech companies, and civil society against a backdrop of rapidly moving societal dynamics. Our preliminary research for this study observed multiple interlocking developments that will potentially shape the future of corporate disclosure on digital responsibility. For instance, the global mosaic of ESG-related regulation, creating potential conflicts and risks between jurisdictions, continues to become more complicated in 2023.⁸ ESG has become politicized on the public stage (particularly in the United States),⁹ where many critics view ESG as an imposition of so-called “woke” values, while many proponents largely see ESG as an approach to risk assessment or fiduciary duty.¹⁰ In what is becoming a related conversation, tech companies — particularly large public firms — face pressures from multiple directions to publish new forms of transparency and social accounting around such digital responsibility issues as cybersecurity,¹¹ moderation of online content,¹² facial recognition technology,¹³ and targeted advertising.¹⁴ Growing awareness of digital rights is visible in investor and civil society activities, particularly those that seek to engage with tech

8 World Business Council for Sustainable Development, “ESG Insights: 10 Things That Should Be Top of Mind in 2023,” (January 16, 2023), <https://www.wbcsd.org/Overview/News-Insights/Member-spotlight/ESG-Insights-10-Things-That-Should-Be-Top-of-Mind-in-2023>.

9 Felix Salmon, “Investors Get Caught in Political Crossfire in ESG Fight,” *Axios* (March 4, 2023), <https://www.axios.com/2023/03/04/investors-get-caught-political-crossfire-esg>.

10 Stan Choe and the Associated Press, “Congress Has Declared War Against ‘Woke’ ESG Investing. What is ESG and Why Do Some Hate it So Much?” *Fortune* (March 1, 2023), <https://fortune.com/2023/03/01/congress-war-against-woke-esg-investing-what-is-esg/>.

11 RBC Global Asset Management, “Cyber Security is the Top ESG Concern for Institutional Investors,” (February 12, 2020), <https://www.rbcgam.com/en/ca/article/cyber-security-is-the-top-esg-concern-for-institutional-investors/detail#:~:text=Almost%20two%2Dthirds%20of%20the,Asset%20Management%20Responsible%20Investment%20Survey>.

12 Santa Clara Principles on Transparency and Accountability in Content Moderation, version 2.0, accessed April 24, 2023, <https://santaclaraprinciples.org/>.

13 Candriam, “Investor Engagement on Human Rights Risks of Facial Recognition Technology: Interim Report,” (September 2022), available at <https://www.candriam.com/en-us/professional/insight-overview/topics/esg/facial-recognition-and-human-rights-responsible-investors-acting-together/>.

14 Investor Alliance for Human Rights, “Investor Statement on Corporate Accountability for Digital Rights,” last updated 2021, <https://investorsforhumanrights.org/investor-statement-corporate-accountability-digital-rights-o>.

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companies using frameworks related to the United Nations Guiding Principles on Business and Human Rights (UNGPs).¹⁵ Adding to the complexity, new theories and practice of “corporate digital responsibility” (CDR) are unfolding.¹⁶ In general, CDR refers to practices and behaviors that help companies use data and digital technologies in responsible ways.¹⁷ This study cuts through the surface of these phenomena by collecting observations from professionals on the ground. Based on this descriptive work, we develop some recommendations for practice, which we share throughout the report, and some forward-looking hypotheses, which we share in the final pages.

Interviews occurred between January and March 2023.

15 E.g., EOS at Federated Hermes, “EOS Digital Rights Principles,” (April 2022), available at <https://www.hermes-investment.com/us/en/professional/eos-stewardship/eos-library/>.

16 L. Lobschat et al., “Corporate Digital Responsibility,” *Journal of Business Research* 122 (2021): 875–88; C. Herden et al., “Corporate Digital Responsibility,” *Sustainability Management Forum / NachhaltigkeitsManagementForum* 29 (2021): 13–29.

17 “The International CDR Manifesto,” last updated February 2023, <https://corporatedigitalresponsibility.net/cdr-manifesto>.

Summary of Findings

KEY FACTORS THAT DRIVE CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY INCLUDE:

Institutional investment: Institutional investors use corporate disclosure on digital responsibility because of its materiality for investment performance, and because it informs active ownership, i.e., use of shareholder power to influence corporate behavior.

Regulation: Mandatory securities laws and regulations have long required disclosure of information to capital markets actors and regulators, such as financial statements and securities offerings, but recent focus by regulators on investor concern with sustainability and evolving risk is widening the aperture on information that should be disclosed. Two prominent examples are in the European Union and the United States. The E.U.'s Corporate Sustainability Reporting Directive, which entered into force in January 2023, requires some 50,000 large and listed companies to disclose information on perceived risks and opportunities arising from social and environmental issues, and on the impact of their activities on people and the environment.¹⁸ In 2022, the U.S. Security and Exchange Commission (SEC) announced new proposed requirements for cybersecurity disclosures that would require enhanced and standardized reporting by public companies on cybersecurity risk management, strategy, governance, and incident reporting.¹⁹ Regulatory developments such as these on either side of the Atlantic draw affected companies' attention and resources, effectively motivating change to keep up with disclosure of mandatory information. The shift in turn constrains the ways that companies respond to investor and civil society expectations for reporting beyond what is legally required.

Civil society pressure: Third-sector organizations — particularly those focused on digital rights, human rights, and corporate accountability — engage with companies to press for more disclosure. Benchmarking of corporate leaders and laggards by non-profits such as Ranking

¹⁸ European Commission, "Corporate Sustainability Reporting," accessed April 25, 2023, https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/company-reporting-and-auditing/company-reporting/corporate-sustainability-reporting_en

¹⁹ United States Securities and Exchange Commission, "SEC Proposes Rules on Cybersecurity Risk Management, Strategy, Governance, and Incident Disclosure by Public Companies," (March 9, 2022), <https://www.sec.gov/news/press-release/2022-39>.

Digital Rights and World Benchmarking Alliance is used to encourage companies to keep up with or outdo their peers.

KEY FACTORS THAT BLOCK OR SLOW CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY INCLUDE:

Non-standardized reporting: Reflecting a broader problem in ESG and sustainability reporting, disclosure on digital responsibility lacks a single standardized format. Investors, companies, and civil society consider this a shortfall because it creates uncertainty around the usefulness of information and makes it difficult to compare practices between companies or measure changes over time.

Measurement difficulties: Digital responsibility topics bear measurement problems similar to those of other social and governance topics. For instance, corporate culture around ethics and whistle-blowing is hard to quantify, social impacts (such as discriminatory harm from algorithms or identity theft from data breaches) are more complicated to report than company policies and practices, and multinational firms' long chains of contractors and suppliers are difficult to audit. There is significant lag compared to quantification progress in environmental reporting.

Reporting burden on companies: There are concerns about “reporting fatigue,” as companies are asked to respond to pro-forma questions about a range of environmental, social, and governance issues from ESG research firms, ratings agencies, and investors. Adding to the complexity, technology firms' operations can quickly outscale personnel compared to traditional industries, raising concerns about proportionality of reporting requirements. Whereas longer-established industries have roughly linear correspondence between their overall activity and size of their workforce, today's digital companies do not, and their activity volume can grow extremely quickly.

We expand on the above findings in the following sections: Disclosure Topics (pp. 12–13), Disclosure Enablers (pp. 14–19), Disclosure Blockers (pp. 20–25), and Looking Ahead (p. 26–27).

Interviewee Details

We conducted **20** interviews with **22** professionals across investing (**eight** firms), large-cap technology companies (**six** companies), and civil society (**six** organizations). The 22 interviewees represent organizations headquartered in seven countries.

INVESTING

Investors with whom we spoke represent institutional asset owners and asset managers, representing approximately **\$7.96 trillion** in aggregate assets under management and significant additional assets under advice or supervision. Interviewees included:

- Engagement specialist at a public pension fund in Europe
- Engagement manager of a stewardship team at a global asset manager
- Directors of shareholder advocacy (three) at a faith-based investment firm
- Research specialist at a global asset manager
- ESG stewardship manager at an ESG mutual fund company
- ESG integration & engagement professional at a global asset manager
- Managing director & head of stewardship at a global ESG-integrated asset manager
- ESG investment professional at a global multi-specialist asset manager

TECHNOLOGY COMPANIES

The technology companies represented by the interviewees have an aggregate market capitalization of approximately **\$3.95 trillion** as of April 2023. Companies are listed on the **NASDAQ, NYSE, NSE, and TYO** stock exchanges. Interviewees included:

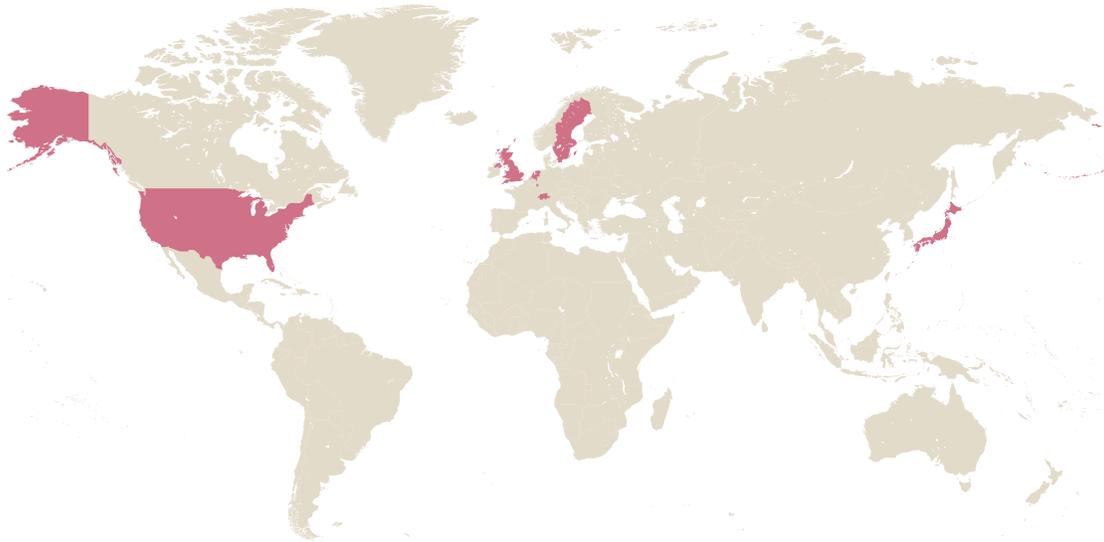
- ESG director at a tech company
- Responsible business promotion lead at a global ICT company
- Strategic finance executive in the tech sector
- ESG executive at a computer software company
- Former senior manager of corporate social responsibility for a multinational tech company
- Investor relations director at a multinational tech company

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CIVIL SOCIETY

Interviewees included:

- Research analyst at a global civil society organization
- Engagement manager at a non-profit focused on corporate accountability
- Researcher at a global corporate accountability watchdog
- Director of a non-profit human rights advocacy organization working with investors
- Executive at a global multi-stakeholder initiative
- Analyst at a global sustainability standard-setter



Investor headquarters

Luxembourg
Sweden
UK
USA

Corporate headquarters

Japan
USA

Civil society headquarters

Netherlands
Switzerland
UK
USA

Disclosure Topics: The Cutting Edge

TRENDING DISCLOSURE TOPICS ON DIGITAL RESPONSIBILITY THAT SURFACED IN OUR INTERVIEWS WITH INVESTORS, TECHNOLOGY COMPANIES, AND CIVIL SOCIETY

governance

- ▶ AI lifecycle internal stakeholders
- ▶ training oversight
- ▶ board oversight of cybersecurity
- ▶ reporting lines for CISO
- ▶ frequency of cybersecurity communication with board
- ▶ cyber risk management
- ▶ board-level expertise for cybersecurity
- ▶ stakeholder engagement
- ▶ algorithmic accountability
- ▶ cyber management team
- ▶ cyber reporting lines

policies

- ▶ AI policy
- ▶ acceptable use policy
- ▶ privacy policy
- ▶ online sexual exploitation policy
- ▶ cyber policies

incident response

- ▶ data breaches
- ▶ data breach responses
- ▶ grievance mechanisms
- ▶ cyber insurance
- ▶ material cybersecurity incidents
- ▶ cyber incident management

ethics capacities

- ▶ AI ethics
- ▶ AI ethics investment and R&D spend
- ▶ data ethics
- ▶ data ethics governance
- ▶ management discussion for data ethics breaches
- ▶ balance between freedom of expression & privacy
- ▶ technology in conflict-affected areas
- ▶ online sexual exploitation prevention outcomes
- ▶ online sexual exploitation prevention investment and R&D spend

education, training, and culture

- ▶ cybersecurity culture
- ▶ board-level continuing education on cybersecurity

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practices

- ▶ monitoring of AI products
- ▶ implementation of AI principles or values
- ▶ AI bias testing
- ▶ risk assessment
- ▶ impact assessment
- ▶ data use
- ▶ data collection
- ▶ disclosure to users on how data is collected, used, and sold
- ▶ secondary uses of data
- ▶ data governance
- ▶ disaggregated content enforcement data
- ▶ content enforcement remediation
- ▶ due diligence commitments
- ▶ human rights assessment
- ▶ scenario testing
- ▶ monetization of consumer data
- ▶ security controls audit
- ▶ know-your-customer process
- ▶ child rights impact assessment
- ▶ child rights stakeholder engagement
- ▶ online sexual exploitation prevention practices
- ▶ targeted advertising
- ▶ cyber procedures

effectiveness

- ▶ policy effectiveness
- ▶ cyber resilience

third-party assessments/alignments

- ▶ ISO certifications
- ▶ security framework alignment

other

- ▶ legal proceedings associated with user privacy
- ▶ law enforcement requests for user data
- ▶ government requests for user data

Findings: Disclosure Enablers

SEVEN KEY INSIGHTS SURFACED IN ANSWER TO THE QUESTION, “WHICH PROCESSES *ENABLE* CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY?”

1. Financially material disruptions, such as financial loss through data breaches, **will continue to magnify investors’ attention on digital responsibility issues**. Two of our investor interviewees referred to the 2017 Equifax breach, which compromised 148 million Americans’ personal information, and the company’s subsequent campaign to transform into an industry leader in data security, an effort prioritizing transparency and disclosure. The company’s new ESG reports present cybersecurity disclosures in a Sustainability Accounting Standards Board (SASB) Report and Security Annual Report.²⁰ Both investors said that they point to Equifax as an example of demonstrating best practices for cybersecurity disclosure.

2. Collaboration between investors and civil society is growing around corporate digital responsibility. Our interviews revealed that there is already significant cooperation and collaboration between investors and civil society organizations toward engagement with businesses on digital responsibility disclosure. An engagement manager at a U.S. non-profit focused on corporate accountability emphasized the importance of coordinated cross-sector messaging from investors and civil society toward technology companies. “I would say that it’s very rare that we have direct evidence that our pressure was the sort of deciding factor in pushing the company to make a change. . . . I think it ultimately speaks to the fact that in most cases it’s not one single source of pressure that ends up persuading a company to give in to a demand; it has to be multilateral.”

Our interviews suggest that civil society and investors are engaging in a network-building approach known as *strategic bridging*, where one party links diverse constituencies to address a problem domain.²¹ Observed in fields such as sustainable development and environmental advocacy, bridgers are third parties that convey ideas and innovations, broker resources,

²⁰ Both available at Equifax, “ESG Reports,” accessed April 24, 2023, <https://www.equifax.com/about-equifax/reports-esg-annual/>.

²¹ L. D. Brown, “Bridging Organizations and Sustainable Development,” *Human Relations* 44, no. 8 (1991): 807–31; F. Westley and H. Vredenburg, “Strategic Bridging: The Collaboration between Environmentalists and Business in the Marketing of Green Products,” *Journal of Applied Behavioral Science* 27, no. 1 (1991): 65–90.

negotiate, and build strategy.²² Bridgers enter collaborative negotiations while retaining their own independence to advance their own goals, as well as to serve as links between other actors. This is distinct from mediators, which refrain from imposing their vision on the interaction. In our context, we found two kinds of bridgers.

1. Non-profits act as bridgers between corporations and investors. For example, non-profits World Benchmarking Alliance and Ranking Digital Rights work closely with a global asset manager headquartered in Europe that conducts ESG engagements with public companies. The non-profits serve these engagements by sourcing and supplying information to the investor for use in advancing the dialogue.
2. Investors serve as bridgers between corporations and civil society. For example, an interviewee from a European multi-specialist asset manager informed us that the firm joined an engagement led by World Benchmarking Alliance, the Collective Impact Coalition for Digital Inclusion,²³ to drive adoption and disclosure of ethical AI principles among companies.

RECOMMENDATION

Tech companies need to calibrate their stakeholder feedback loops to accommodate multilateral voices. Large public companies generally have an investor relations team dedicated to communication with shareholders, and it is uncommon for this line of communication to be open to civil society groups. Our interviews suggest that this status quo presents some disconnects when collaborating investors and civil society organizations are in contact with different siloed teams at a company they are engaging. For example, the company provides one message to an investor while it gives a divergent or even conflicting message to an advocacy organization working with that investor. If corporate decision-makers at tech companies have doubts about what such disconnects do for trust-building with stakeholders, they might choose to strengthen integration between investor relations personnel and teams that liaise with civil society to coordinate strategic communication across both groups.

3. Key actors are framing digital responsibility in terms of human rights due diligence, using language that growing numbers of investors use. Several of our investor interviewees emphasized that applying a human rights lens to cybersecurity, data governance, and AI

²² Brown, “Bridging Organizations and Sustainable Development,” 812 (see n. 21 above).

²³ World Benchmarking Alliance, “Launch Event for the Collective Impact Coalition for Digital Inclusion: Advancing Ethical and Responsible AI,” (September 13, 2022), <https://www.worldbenchmarkingalliance.org/news/ciclaunch-event/>.

enables better corporate disclosure, effectively reducing information asymmetry between companies and investors.²⁴ A recent landmark of this approach is the Investor Statement on Corporate Accountability for Digital Rights, which exhorts that “companies must make public their human rights commitments and move from ad-hoc human rights due diligence to a systematic approach of embedding human rights due diligence across all of their business activities,” including “how freedom of expression, privacy, and user rights may be affected by the company’s full spectrum of operations.”²⁵ One head of stewardship at an ESG-integrated global asset manager said that the rise of human rights as a priority in corporate governance is evident in the context of the E.U.’s proposed directive on corporate sustainability due diligence, which would establish a duty for corporate directors to account for human rights consequences of their operations, subsidiaries, and value chains inside and outside Europe.²⁶

Human rights are on the rise in investment stewardship: More than 220 investors representing \$30 trillion in assets under management signed onto a stewardship initiative on human rights, known as Advance, according to a December 2022 announcement by Principles for Responsible Investment.²⁷

4. Civil society benchmarks are gaining traction among investors as a tool for engaging with companies to improve both corporate disclosure and corporate performance.

Several of our investor interviewees mentioned World Benchmarking Alliance’s benchmarks²⁸

24 A common reference point used by companies, investors, and civil society is the United Nations Guiding Principles on Business and Human Rights (2011), which states, “The responsibility to respect human rights requires that business enterprises have in place policies and processes through which they can both know and show that they respect human rights in practice. Showing involves communication, providing a measure of transparency and accountability to individuals or groups who may be impacted and to other relevant stakeholders, including investors” (pp. 23–24, available at <https://digitallibrary.un.org/record/720245?ln=en>).

25 Investor Alliance for Human Rights, “Investor Statement on Corporate Accountability for Digital Rights,” accessed April 24, 2023, <https://investorsforhumanrights.org/investor-statement-corporate-accountability-digital-rights-o>.

26 European Commission, “Corporate Sustainability Due Diligence,” accessed April 24, 2023, https://commission.europa.eu/business-economy-euro/doing-business-eu/corporate-sustainability-due-diligence_en#what-are-the-next-steps.

27 Principles for Responsible Investment, “Over 200 Investors Representing US \$30 Trillion in AUM Sign Up to ‘Advance’ — World’s Largest Stewardship Initiative on Human Rights,” (December 1, 2022), <https://www.unpri.org/news-and-events/over-200-investors-representing-us-30-trillion-in-aum-sign-up-to-advance-worlds-largest-stewardship-initiative-on-human-rights/10901.article>.

28 World Benchmarking Alliance, “Why Benchmarks?” accessed April 24, 2023, <https://www.worldbenchmarkingalliance.org/benchmarking/>.

(such as the Digital Inclusion Benchmark) and Ranking Digital Rights' scorecards²⁹ (the Telco Giants Scorecard and Big Tech Scorecard, formerly Corporate Accountability Index). These initiatives serve as publicly available data banks and scoring systems, and are chosen by some investors for use in engagements with companies to request more disclosure and press for better performance. They give leverage to investors by providing them with comparative information, enabling them to tell companies that they observe peers evolving a certain process in a specific way and to emphasize the usefulness of that approach, according to a head of stewardship at a global ESG-integrated asset manager based in the USA. These engagements can lead over time to more corporate disclosure, interviewees reported, which can gradually lead to more standardized and comparable information.

RECOMMENDATION

Tech companies and investors should provide input on methodology and content for civil society benchmarks. Although the benchmarks are a form of pressure on companies to meet explicit standards, we found no evidence that they are static instruments wholly created by civil society organizations themselves. Instead, they are products of communication among civil society, tech companies, investors, and others. The benchmark providers have some degree of openness toward responding to changing expectations over time. Both World Benchmarking Alliance and Ranking Digital Rights offer to engage with the companies they assess to discuss findings, reconcile differences, and generate ways for companies to improve. Further, investors provide input for the scoring methodologies, according to a head of stewardship at a U.S.-based global asset manager.

5. Companies' stakeholder governance — the practice of identifying, understanding, and engaging with internal and external perspectives on key issues related to business operations and impacts — is becoming more methodical in order to guide disclosure.

Interviewees conveyed that input from a range of stakeholders — particularly employees, customers, investors, and civil society — enables more effective corporate disclosure on digital responsibility. They also suggested that feedback loops between companies and their stakeholders drive not only more disclosure, but also more structured ways of soliciting, analyzing, and archiving stakeholder input. When these communication practices become more sophisticated in parallel with increasing legal requirements and soft guidance that call for accurate disclosures on business activities and impacts, companies are pressed to become more disciplined in their internal processes for identifying and reporting on key stakeholder issues.³⁰

29 Ranking Digital Rights, "Scorecards and Rankings," accessed April 24, 2023, <https://rankingdigitalrights.org/rankings-report-cards/>.

30 Stavros Gadinis and Amelia Miazad, "A Test of Stakeholder Capitalism," *The Journal of Corporation Law* 47 (2021): 97.

RECOMMENDATION

Tech companies should change how they do materiality assessment — the process of identifying the topics that matter most to their business and stakeholders — to better reflect dimensions of digital responsibility that are internally and externally perceived as important to the organization’s business and reputation. To enhance materiality assessment in this way, companies need better internal alignment between their ESG or equivalent division and their security, privacy, and AI functions. The latter three often stand apart from a company’s ESG function because they support go-to-market activities and tech research and development. The efforts in security, privacy, and AI are “very siloed” programmatically from ESG work, an ESG executive at a computer software company commented, adding that one hope for the future is that C-suite executives in charge of technology functions — such as chief security officers — fully embrace their divisions’ connections to ESG through objectives like responsible AI and ethical use of technology. One possible outcome of better internal alignment among technology, privacy, and ESG functions, then, could be better opportunity for identifying and responding to issues that are significant to stakeholders generally addressed by ESG programs, such as employees, customers, advocacy organizations, investors, and academics. ESG materiality assessments can benefit from more integrated, structured, and documented communication between external stakeholders and the company’s security, privacy, and AI teams.

6. Investors’ requests for disclosures about corporate culture are trending across sectors and shine a light on how companies treat employees as a stakeholder group. An engagement specialist at a European public pension fund reported that culture disclosure is a relatively new area for investor-company conversations, adding that “to what extent . . . the employees feel like they are empowered and expected to speak up and voice their ideas or their concerns” is particularly relevant for tech companies with respect to human rights. “It’s a challenging area,” the specialist noted, “because it’s hard to measure but that essentially underlies everything.”

RECOMMENDATION

Companies should report whether they require employee training related to digital responsibility (such as cybersecurity or human rights training), along with key metrics such as completion rates, in order to respond to stakeholder demand for information about corporate culture. Investors and companies are turning to disclosures on employee training as one kind of barometer for corporate culture. For example, this expectation can link into cybersecurity disclosure when companies and investors agree that information about cybersecurity training — such as the specific modules provided to employees — is feasible for companies

to report and useful for investors to know. An ESG integration and engagement professional at a Europe-based global asset manager reported that culture is one of four primary areas of cybersecurity disclosure that the firm expects of companies, including specific training modules provided to employees and incentives that can propel cyber culture change.

7. Regulation is a major driver of disclosure, though policymakers are addressing digital responsibility through a siloed approach. Predictably, we heard that regulations and regulators that mandate disclosure have a grip on company and investor attention. The E.U.'s Corporate Sustainability Reporting Directive (CSRD) and the U.S. Securities and Exchange Commission's proposed new requirements for cyber disclosures received most mention in these discussions. These are just two developments in a global patchwork of ESG-related regulations, amplifying disclosure burdens and creating potential conflicts and risks between jurisdictions, that continue to become more complicated in 2023.³¹ Less predictably, we heard that regulation by stock exchanges could be a possible future for corporate disclosure on digital responsibility. Several interviewees pointed to past examples of stock exchanges' role in raising standards for ESG reporting through such activities as mandatory listing requirements, written guidance on ESG reporting, launching of ESG-focused indices, and training on ESG topics.

RECOMMENDATION

Third- and private-sector organizations should consider stock exchanges as potential partners for collaborative work on disclosure norms. The Sustainable Stock Exchanges (SSE) initiative,³² a United Nations Partnership Program, surfaced in the interviews as a potential venue where norms for corporate disclosure on digital responsibility might develop in the future.³³

31 World Business Council for Sustainable Development, "ESG Insights: 10 Things That Should Be Top of Mind in 2023," (January 16, 2023), <https://www.wbcsd.org/Overview/News-Insights/Member-spotlight/ESG-Insights-10-Things-That-Should-Be-Top-of-Mind-in-2023>.

32 Sustainable Stock Exchanges Initiative, accessed April 24, 2023, <https://sseinitiative.org/>.

33 See also the policy brief illustrating how NASDAQ can implement cybersecurity into its ESG reporting guide in Jonathan Everhart, "Cybersecurity + ESG for the Global Capital Markets," Harvard Law School Forum on Corporate Governance (September 15, 2022), <https://corpgov.law.harvard.edu/2022/09/15/cybersecurity-esg-for-the-global-capital-markets/>.

Findings: Disclosure Blockers

SEVEN KEY INSIGHTS SURFACED IN ANSWER TO THE QUESTION, “WHICH PROCESSES *IMPEDE* CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY?”

1. Non-standardized reporting impedes disclosure on digital responsibility. Technology topics like data governance, AI, and cybersecurity are subject to nascent and disparate reporting rules established by a patchwork of hard and soft regulations. Companies must navigate a reporting landscape that is much less systematized than more mature fields in ESG and corporate responsibility, such as climate and human capital management. In the near term, companies are fixated on tactically complying with mandatory rules, such as those requiring environmental or workforce demographics reporting, and regulations about to come into effect, such as the U.S. SEC’s proposed rule on cybersecurity risk management, governance, and incident reporting. Companies are devoting less energy to topics that lack a regulator’s mandate, and this allocation of firm resources implies that newer strains of voluntary corporate disclosure — such as digital responsibility reporting on data ethics or AI bias — have a “harder road” toward standardization, as an ESG executive at a U.S. software company explained.

RECOMMENDATION

Investors, tech firms, and civil society should use multi-stakeholder initiatives to evangelize corporate disclosure on digital responsibility. There are already highly visible multi-stakeholder efforts to consolidate and harmonize reporting standards for ESG and sustainability contexts — for example, the International Sustainability Standards Board’s development of a global baseline of sustainability disclosures.³⁴ Several interviewees envisioned that a new multi-stakeholder effort modeled on the Global Network Initiative³⁵ — which brings together information and communications technology (ICT) companies, scholars, human rights and press freedom organizations, and investors — could enable corporate disclosure on emerging topics, such as data ethics.

34 IFRS Foundation, “International Sustainability Standards Board,” accessed April 24, 2023, <https://www.ifrs.org/groups/international-sustainability-standards-board/>.

35 Global Network Initiative, “About GNI,” accessed April 24, 2023, <https://globalnetworkinitiative.org/about-gni/>.

2. Difficulty in measuring social impact hinders efforts to develop and adopt reporting standards. In the current state of the art, most social indicators focus on identifying or measuring companies' policies and processes, rather than the effects of corporate performance. This state of reporting can meet certain expectations of investors, who are often more concerned with ensuring accountability than they are with micro-managing corporate executives. But as an additional challenge, some investors and civil society organizations want to analyze a company's impacts on society (such as adverse human rights impacts) and/or the associated risks to financial returns, and ideally assess not only the firm's operations but also its contractors and supply chain. It is "a lot easier to get a number of tons of carbon emissions than it is to say how this tech has influenced society," said an ESG investment professional at a Europe-based asset manager. He added that commercial ESG ratings providers are presently falling short, having done little work to overcome these specific challenges with the scores and analyses they supply to investors.

RECOMMENDATION

Tech companies, investors, and civil society should devote attention to developing outcome-based metrics to complement significant progress already made on policy-, governance-, and process-based reporting recommendations. For example, the number of employees trained in a subject (such as AI bias) is an activity metric that can be transformed into an outcome metric by measuring the quality that the activity seeks to change (such as an indicator of how employee skills in AI bias meet the skills needed for their roles). A company's approach to choosing metrics for digital responsibility disclosure might depend on whether it has had a major risk or reputation event recently, and what pressures it receives from stakeholders to meet explicit standards. Digital responsibility metrics will not be adopted unless they are tied to companies' success metrics, which are more specific than industry best practices. Metrics must also account for differences across industry segments –for example, metrics about customers have different relevance for companies in the technology sector depending on the degree to which they are primarily consumer- or enterprise-facing. Telecom and social media companies will have different considerations for disclosing on government requests for user data compared to hardware companies.

3. Questionnaire and disclosure burdens on companies can overwhelm reporting teams, particularly in the technology sector, where operations can greatly outscale personnel. There are concerns about "reporting fatigue,"³⁶ as companies are asked to respond to pro-forma

³⁶ Silvia Pavoni, "Proliferation of Demands Risks 'Sustainability Reporting Fatigue,'" *Financial Times* (May 11, 2020), <https://www.ft.com/content/9692adda-5d73-11ea-ac5e-df00963c20e6>.

questions on a range of environmental, social, and governance issues from ESG research firms, ratings agencies, and investors. As one executive of a multi-stakeholder initiative based in Switzerland pointed out, whereas traditional industrial companies exhibit a roughly linear correspondence between their overall activity and size of their workforce, today's digital companies do not: their activity volume can grow extremely quickly, raising challenges regarding the proportionality of reporting requirements. "One of the difficulties in requesting regulatory constraints regarding ethics, data analytics, or data sharing responsibility is, how do you make this requirement proportionate?" However, some of our investor interviewees were skeptical that large-cap tech companies are stretched too thin for adequate reporting and engagement on ESG-related issues. For example, a director of shareholder advocacy at a U.S. faith-based investment firm described having seen companies in other industry verticals (such as discount retailers) respond to stakeholder expectations (such as concerns about product safety) with a fraction of the ESG staff available at "tech giant" companies.

RECOMMENDATION

Private- and third-sector organizations should develop digital responsibility disclosure guidance tailored for SMEs through mid-cap companies. This would fill gaps in existing recommendations from civil society organizations, such as Ranking Digital Rights and World Benchmarking Alliance, and from standard-setters, such as the Global Reporting Initiative and the IFRS Foundation (which coordinates the Sustainability Accounting Standards Board standards). Little of the published guidance put forth by these institutions is suitable for different company sizes and capabilities, where need is growing; instead, such guidance is largely designed for and used by multinational large-cap companies.

- A potential model for new guidance efforts for digital responsibility disclosure is the Alternative Proteins ESG Reporting Framework, developed by the FAIRR Initiative and Good Food Institute (GFI).³⁷ In this framework, disclosure recommendations are customized by material ESG risks of high, medium, or low relevance, depending on a company's growth stage and technology. Investors may thus use the frameworks to conduct ESG due diligence on companies of all sizes.

4. Lack of technical cybersecurity expertise among investors constrains their requests for disclosures. "A broader point in the investment world is that most of us don't have cyber or computer science backgrounds," a director of shareholder advocacy at a U.S.-based investment firm explained. "So there is no shared language right now, though we're

37 FAIRR Initiative, "Alternative Proteins Framework," accessed April 24, 2023, <https://www.fairr.org/research/alternative-proteins-framework/>.

getting better.” Scarcity of technical expertise has partly contributed to the rise of investor expectations for corporate disclosure on cybersecurity governance, since investors have long developed capabilities for examining corporate governance more broadly. The application of investors’ governance expertise to the specific domain of cybersecurity became clear in several ways through our interviewing. First, an engagement manager at an asset manager dually based in Europe and the USA suggested that, while most investors are not cyber experts, they can ensure that individuals with relevant expertise should be on the board. Second, whereas disclosure on cybersecurity governance used to be a gold standard exemplifying a leading best practice, it has now become expected table stakes for every company, said one interviewee at a mutual fund company. Third, another professional at a Europe-based asset management firm said that, when engaging and researching companies, their angle is to understand where cyber accountability lies, including how executive management is held accountable, reporting lines, board oversight, and risk assessment, including whether the firm uses risk mapping exercises.

5. Communication channels between companies and investors on digital responsibility are maturing, but still need improvement. Investors have an impression that corporate investor relations teams are extremely busy and have limited availability for preparing communication about their firms’ digital practices. “I appreciate that this is a crowded space,” said an engagement specialist at a European public pension fund, adding that plenty of investors have questions for companies on a wide range of issues beyond digital responsibility: “The key is really to be mindful of that and make the dialogue relevant and useful to the company.” Others described investor relations as a “gatekeeper” to get past in order to reach an expert with the right information. Conversations with investor relations teams about disclosing cyber risk information, for example, are usually “limited” because IR is not the best stakeholder, according to an ESG stewardship manager at a U.S.-based mutual fund company.

International investor expectations can have regional effects: Engagement with Japanese investee companies tends to be conducted mainly by overseas investors, who are major players in the market for Japanese equities (e.g. around 30 percent of Tier 1 equities on the JPX exchange are internationally owned).³⁸

38 Principles for Responsible Investment, UNEP, and The Generation Foundation, “Fiduciary Duty in the 21st Century: Japan Roadmap,” (2017), 9, <https://www.unepfi.org/regions/asia-pacific/fiduciary-duty-in-the-21st-century-japan-roadmap-publication/>.

RECOMMENDATION

Companies should create streamlined communication channels with investors to address the increasing breadth and complexity of digital responsibility. One Japanese tech company developed a new model for digesting investor input: the investor relations director explained that his group, in coordination with the executive officer in charge of investor relations, is now empowered to deliver investor feedback directly to the board. A future iteration of the process, catalyzed by recent investor demand for fine-grained ESG information, allows shareholders to communicate not only with the investor relations team and CEO, but also with specialized divisions within the company on specific topics (for example, protection of customer intellectual property).

6. High-profile layoffs in the tech sector have weakened companies' capacity to respond to stakeholder requests for transparency. At several firms, ethics teams have been cut wholesale,³⁹ such as the Machine Learning, Ethics, Transparency and Accountability team at Twitter (November 2022), the Ethics and Society team at Microsoft (January 2023), and the responsible AI team at Amazon-owned Twitch (March 2023). Two related concerns surfaced in the interviews. First, civil society organizations reported drops in communication and cooperation with firms following layoffs. “We lost the primary line of communication [with Twitter following the company’s recent layoffs],” said an engagement manager at a U.S.-registered non-profit focused on corporate accountability. Second, investors’ suspicion about companies’ accountability has gone up. A research specialist at a U.S.-based global asset manager explained it this way: from an investor point-of-view, how does one observe the dismissal of responsible AI teams and data ethicists and have confidence that the company is following the practices it is disclosing?

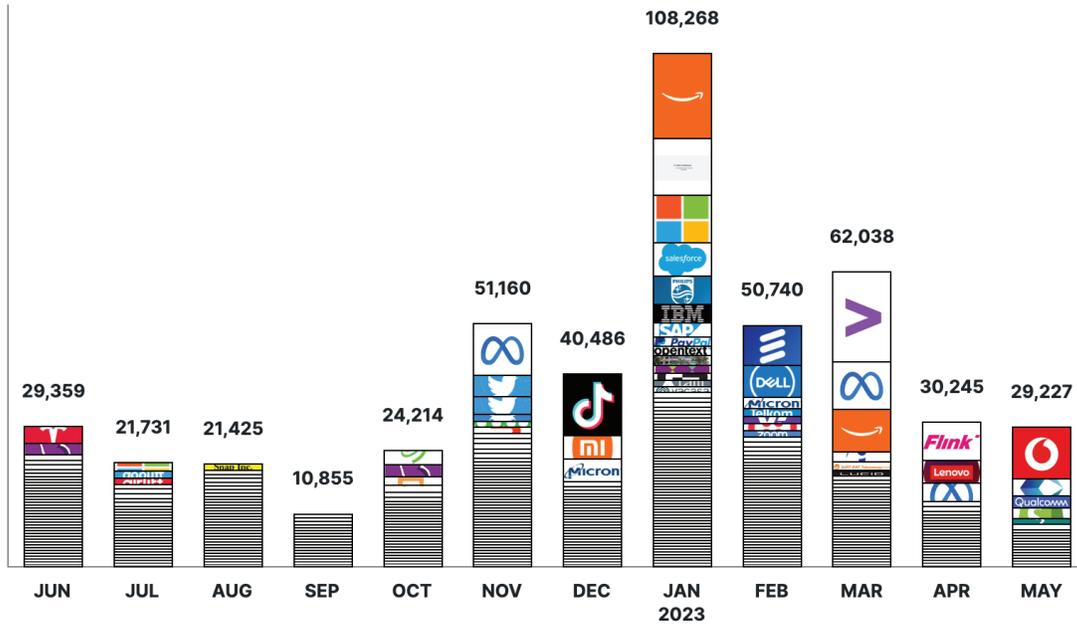
7. Organizational culture plays an important role in the degree to which companies disclose and how they do it. For example, firms that prioritize consensus and hierarchy in decision-making can complicate processes for improving corporate disclosure. Organizational hierarchy and professional title carry weight that can impede efforts below executive levels, said a responsible business promotion lead at a Japan-based global ICT company. Employees without a managerial or executive title will struggle to get attention from senior levels when flagging problems with current disclosure practices and offering solutions. When leadership is a bottleneck, then individual efforts can go sour. This may hinder companies seeking to advance their disclosure capabilities and outcomes. For example, Japanese companies are

39 Gerrit De Vyck and Will Oremus, “As AI Technology Booms, Firms Are Firing Their Ethicists,” *Washington Post* (April 1, 2023), <https://www.washingtonpost.com/technology/2023/03/30/tech-companies-cut-ai-ethics/>.

FUTURE DIRECTIONS IN CORPORATE DISCLOSURE
ON DIGITAL RESPONSIBILITY

of Tech Employees Let Go

as of May 16, 2023



TECHNOLOGY SECTOR LAYOFFS, 2022–23

source: trueup.io/layoffs

under pressure to improve their understanding of the global context about what is expected in reporting beyond compliance with Japanese law, according to our conversation with a former senior manager of corporate social responsibility for a multinational, Japan-based tech company. This type of organizational learning may profit from employees on the ground, who are often closest to problems at hand and their effects at local levels.

RECOMMENDATION

Companies with highly hierarchical structures and/or consensus-driven decision processes need to listen to employees at all levels about transparency related to digital responsibility. They need to create pathways for information to flow upward so that executives are aware of the interactions between the company’s digital policies, practices, and oversight with its reporting procedures and results.

Looking Ahead

To generate some foresight about future directions for corporate disclosure on digital responsibility, we asked interviewees to comment on prospects that could be enablers or blockers.

Here are four selected hypotheses that emerged from these discussions:

1. Long-term investors will become increasingly savvy about technology-related risks, and they will press for digital responsibility disclosures accordingly.

- Take for a moment an analogy with climate. Fiduciaries have shifted in recent years to view climate change as a material risk to long-term investors: in the coming decades, most companies will affect or be affected by the changing climate. Interviews for this study suggest that some long-term investors are now thinking about corporate digital responsibility like climate, so that in longer time horizons they perceive that most companies will affect or be affected by cybersecurity.
- We expect this shift to be most visible among large institutional investors known as “universal owners,”⁴⁰ which have highly diversified portfolios that represent the ownership sector rather than any specific sector or company, because of their incentive to minimize externalities. This is because if one company or sector — such as one social media company or the technology sector more broadly — profits through conduct that troubles social systems, the resulting harm may potentially pose a risk to the investor’s entire portfolio that far offsets any gain from a holding in the offending company.⁴¹

2. Technology sector exceptionalism will wane. A number of our interviewees articulated that, with continual digitalization of the business sector, we have arrived in a world in which virtually every company is a tech company.⁴² Investors in particular are bringing focus on digital responsibility disclosure to other sectors, such as healthcare, pharmaceuticals, and financial

40 See, for example, UNEP Finance Initiative and Principles for Responsible Investment, “Universal Ownership: Why Environmental Externalities Matter to Institutional Investors” (2011), <https://www.unepfi.org/industries/investment/universal-ownership-why-environmental-externalities-matter-to-institutional-investors-2/>.

41 Frederick Alexander, “The Flaw in Anti-ESG Logic: Financial Interests of Companies Like Meta Don’t Always Align With Those of its Shareholders,” Harvard Law School Forum on Corporate Governance (December 5, 2022), <https://corpgov.law.harvard.edu/2022/12/05/the-flaw-in-anti-esg-logic-financial-interests-of-companies-like-meta-dont-always-align-with-those-of-its-shareholders/>.

42 We can reasonably assume they mean companies resourced enough to be under disclosure pressure from stakeholders, not private small businesses like mom-and-pop shops.

services. The topic “bleeds” into every sector and is on the rise in engagements regarding ESG and other nonfinancial disclosures.

3. Investors and civil society will continue to press for information about how companies implement commitments to digital responsibility. While both private-sector and third-sector actors are interested in policies and processes that companies have in place, they increasingly dig deeper by asking for information about impact, outcomes, and resources dedicated to developing solutions. These expectations are starting to shift from first-generation topics such as cybersecurity and privacy to next-generation topics such as AI accountability, data ethics, children’s online safety, and technology in conflict zones.

4. Civil society engagement with large-cap multinational companies will persist in increasingly coordinated ways, even as emerging efforts expand to startups and SMEs.

- A high-profile set of “tech giant” companies — particularly Alphabet, Meta, Apple, Amazon, and Microsoft — have been subjects of lively debate about corporate disclosures on digital responsibility and their transparency practices more generally. Along with these firms, the world’s largest tech companies will continue to face special scrutiny from civil society. For instance, the World Benchmarking Alliance’s Digital Inclusion Benchmark has been growing in iterations since 2020 and published scores on “200 of the world’s most influential tech companies” in March 2023.⁴³
- Expansion to a greater number of large public companies, as well as startups and SMEs, surfaced in two key ways in the interviews. First, civil society organizations encourage cross-sector adaptation of their benchmarks by investors and others who can take the publicly available methodologies and apply them to companies not yet evaluated. The openness of the methodologies enables informal and formal partners to adapt them to examine different companies and markets (e.g., ride share, e-commerce, gig economy, medical devices). Second, civil society organizations such as the Business & Human Rights Resource Centre are actively coordinating with each other to improve engagement with venture capital and private equity investors to address transparency regarding digital responsibility in ESG and human rights due diligence activities.

43 World Benchmarking Alliance, “Digital Inclusion Benchmark,” accessed April 24, 2023, <https://www.worldbenchmarkingalliance.org/digital-inclusion-benchmark/>.

Conclusions and Future Research

Institutional investors, technology firms, and civil society are engaged in an elaborate set of processes and communications that are shaping norms about how companies should disclose information related to digital responsibility. Through this research, we found that, while two-party relationships are important, three-party relationships among companies, investors, and civil society are also a significant factor, with both institutional investors and civil society organizations serving as strategic bridgers to encourage response from tech firms. The research identified both enablers and blockers of corporate disclosure, drawn from institutional processes within and between organizations.

Our results have implications for practice in investment management, business ethics, and stakeholder governance. We uncovered some priorities of institutional investors when demanding corporate disclosures on digital responsibility, adding to a growing body of research on the utility of ESG information for investors.⁴⁴ Moreover, our results show that digital responsibility disclosure is putting pressure on how companies identify, understand, and engage with external stakeholder perspectives on key issues in their operating environment. One possible implication is that demands for more disclosure from tech companies are playing a role in how these firms approach stakeholder governance, an aspect of corporate governance that is undergoing notable change and discussion.⁴⁵ Decision-makers in tech companies, institutional investors, and civil society can build on our findings by strategically examining how their organization might benefit from strategic bridging with other organizations on digital issues such as AI accountability and children’s online safety, and from improving corporate disclosure on these issues.

44 See, for example, Amir Amel-Zadeh and George Serafeim, “Why and How Investors Use ESG Information: Evidence from a Global Survey,” *Financial Analysts Journal* 74, no. 3 (2018): 87–103; MIT Sloan Sustainability Initiative, “The Aggregate Confusion Project,” n.d., <https://mitsloan.mit.edu/sustainability-initiative/aggregate-confusion-project>.

45 On developments in stakeholder governance, see e.g. DNV and World Business Council for Sustainable Development, “Improving Stakeholder Governance: Aligning Corporate Purpose and the Business Model,” (October 20, 2021), <https://www.wbcsd.org/Programs/Redefining-Value/Making-stakeholder-capitalism-actionable/Governance-and-Internal-Oversight/Resources/Improving-Stakeholder-Governance-Aligning-corporate-purpose-and-the-business-model>; Maria Castañón Moats, Paul DeNicola, and Matt DiGiuseppe, “The Board’s Role: Building Trust in a Multi-stakeholder World,” Harvard Law School Forum on Corporate Governance (January 3, 2023), <https://corpgov.law.harvard.edu/2023/01/03/the-boards-role-building-trust-in-a-multi-stakeholder-world/#more-153060>; Martin Lipton, “Update on ESG, Stakeholder Governance, and Corporate Purpose,” Harvard Law School Forum on Corporate Governance (January 28, 2023), <https://corpgov.law.harvard.edu/2023/01/28/update-on-esg-stakeholder-governance-and-corporate-purpose/>.

FUTURE DIRECTIONS IN CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY

Our findings also contribute to growing research on corporate digital responsibility (CDR). Few studies have examined the relationship between CDR and corporate disclosure.⁴⁶ This study is one of the first to examine CDR reflected in corporate disclosure emerging from priorities and pressures among tech companies, investors, and civil society.

Future research should incorporate the influence of major organizational players that were outside the scope of this study. Regulators, stock exchanges, employees, business customers, investment clients, ESG research firms, and ratings agencies are among the government and market actors whose contributions to reporting norms merit further study.

46 Enrique Bonsón, Michaela Bednárová, and David Perea, “Disclosures about Algorithmic Decision Making in the Corporate Reports of Western European Companies,” *International Journal of Accounting Information Systems* 48 (2023): 100596, <https://doi.org/10.1016/j.accinf.2022.100596>.

APPENDIX 1

Methodology

The aim of this study was to investigate institutional relationships and processes that contribute to technology companies' disclosure on digital responsibility by conducting interviews with practitioners in three organizational settings (corporations, investing, and civil society). At technology companies, the focus was on professionals who are close to the production of such disclosures (for example, ESG and investor relations professionals), and at organizations in the investing and civil society communities, the focus was on professionals who are consumers of such disclosures (for example, ESG, engagement, stewardship, and research professionals). Interviewees' organizations had headquarters or major offices in the USA, Europe, or Japan. These regions were selected because their capital markets actors and regulators pay relatively high attention to ESG practices, which tend to propel change in corporate disclosure norms.

Prior to recruitment of subjects, the lead researcher conferred with the University of California, Berkeley's Office for Protection of Human Subjects (OPHS) in November 2022. After review of the study plan, OPHS corroborated that the project does not meet the threshold definition of "human subjects" research set forth in Federal Regulations at 45 C.F.R. 46.102(e).

The recruitment process began in December 2022, with interviews conducted from January 2023 to March 2023. To capture a broad range of views from the investing community, the recruitment targeted participants from asset managers, asset owners, and investment services firms. To gain relevant views from civil society, the recruitment sought participants from organizations with a history of activity in corporate transparency and/or ESG related to tech companies. To obtain germane views from tech companies, the recruitment sought professionals in large-cap public companies. The lead researcher identified potential interviewees using purposive sampling, a non-probability selection based on judgment of their role in an organization and their ability to elucidate study themes. Three methods for the sampling were used. First, the lead researcher used public profiles, such as LinkedIn profiles and online biographies, some of which were found through desk research on organizations involved in public dialogue and/or published grey literature related to the study topic. Second, peer recruitment using an electronic flyer was used. Third, the lead researcher used snowball sampling to recruit potential participants by asking existing participants to suggest subjects from their network.

FUTURE DIRECTIONS IN CORPORATE DISCLOSURE ON DIGITAL RESPONSIBILITY

Prospective participants received initial contact through email or LinkedIn direct message. If they showed interest in the study, they received an outline of the nature of the study, information about confidentiality, the names of the sponsoring university and external funder, the interview format, and the expected time commitment. Prior to participation, subjects gave consent in writing.

Interviews took place on Zoom (or similar web application, if required by the interviewee). Interviews were semi-structured, carried out by Jordan Famularo by using an interview guide. Research assistant Sahar Rabiei attended the interviews for note-taking purposes. Interviews were not recorded (the goal being to encourage candid conversations). To help assure subjects that interviews would remain confidential, the researchers used neither the subjects' personal names nor their organizations' names in the notes. The majority of interviews were scheduled for one hour, except two interviews that were condensed at the subject's request (one to 30 minutes and one to 45 minutes).

To analyze the interview content, Famularo and Rabiei examined and coded the notes. Qualitative coding software Atlas.ti was used. The researchers created a set of preliminary codes by closely reading a segment of the dataset together and organizing the codes into themes; next, they individually coded the remaining segments. They met to discuss the codes, agree on modifications, and reconcile differences in interpretation. They finalized coding and then used Atlas.ti to visualize aggregate results. These aggregate results and individual segments of interview notes were the basis for the interpretation in this report.

Twenty interviews were conducted, with 19 having one interviewee each, and one having three interviewees from a single firm. Throughout this report, we present illustrative quotes from interviewee participants using abstractions to preserve confidentiality while highlighting their role and organization types.

STUDY LIMITATIONS

With its intentionally small and targeted sample, our study makes no claim to be representative. Self-selection effects may be at play; in other words, our research may have attracted participants whose organizations are strongly aligned with ESG, sustainability, or other practices or philosophies in which corporate disclosure and/or digital responsibility plays a key role.

APPENDIX 2

Abbreviations

AI	artificial intelligence
CDR	corporate digital responsibility
CISO	chief information security officer
ESG	environmental social governance
ICT	information and communication technology
IR	investor relations
ISO	International Organization for Standardization
GNI	Global Network Initiative
GRI	Global Reporting Initiative
R&D	research and development
SASB	Sustainability Accounting Standards Board
SEC	Securities and Exchange Commission

About the Author

Dr. Jordan Famularo is a postdoctoral scholar at the University of California, Berkeley's Center for Long-Term Cybersecurity, where she leads research to explore how norms evolve in communication between companies and their stakeholders with respect to corporate responsibility, risks, and opportunities inherent in their data practices and digital technologies. Her culture- and communication-based research develops new approaches to communicating and accounting for digital harms, and suggests solutions that amplify the benefits of good data practices. She also produces collaborative, multidisciplinary research on dataset development ethics for artificial intelligence and machine learning, which has been presented at the Conference on Computer Vision and Pattern Recognition and the Conference on Neural Information Processing Systems. Previously, Jordan was Theodore Rousseau Fellow at New York University's Institute of Fine Arts.

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