Do firms effectively communicate with financial stakeholders?

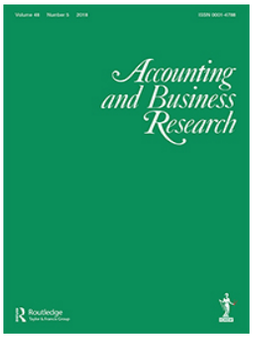
Brennan, Niamh; Merkl-Davies, Doris

Accounting and Business Research

DOI:
10.1080/00014788.2018.1470143

Published: 01/06/2018

Publisher's PDF, also known as Version of record



Accounting and Business Research

ISSN: 0001-4788 (Print) 2159-4260 (Online) Journal homepage: http://www.tandfonline.com/loi/rabr20

Do firms effectively communicate with financial stakeholders? A conceptual model of corporate communication in a capital market context

Niamh M. Brennan & Doris M. Merkl-Davies

To cite this article: Niamh M. Brennan & Doris M. Merkl-Davies (2018) Do firms effectively communicate with financial stakeholders? A conceptual model of corporate communication in a capital market context, Accounting and Business Research, 48:5, 553-577, DOI: 10.1080/00014788.2018.1470143

To link to this article: https://doi.org/10.1080/00014788.2018.1470143

Accounting and Business Research, 2018
Vol. 48, No. 5, 553–577, https://doi.org/10.1080/00014788.2018.1470143

Do firms effectively communicate with financial stakeholders? A conceptual model of corporate communication in a capital market context

NIAMH M. BRENNAN[a*] and DORIS M. MERKL-DAVIES[b]

[a]*Lochlann Quinn School of Business, University College Dublin, Dublin, Ireland;* [b]*Bangor Business School, Bangor University, Bangor, UK*

We identify what constitutes effective communication between firms and their financial stakeholders in a capital market context and establish criteria against which effectiveness can be evaluated. To do this, we introduce the concept of connectivity from the communication studies literature. We conceptualise connectivity as comprising three components: textual connectivity, intertextual connectivity, and relational connectivity. Connectivity refers to the ability to connect different sections of a text (textual connectivity), to connect texts of different time periods or different genres (intertextual connectivity), and to connect firms with their audiences (relational connectivity). We then propose criteria for judging effective corporate communication in a capital market context. Finally, we assess how digital communication and social media provide opportunities for improving connectivity in corporate communication for a broader range of shareholders.

Keywords: corporate reporting; accounting communication; connectivity

1. Introduction

The purpose of this paper is to define what constitutes effective communication between firms and financial stakeholders[1] in a capital market context and to establish the criteria against which effectiveness can be judged. Building on insights from communication studies and linguistics, we develop a conceptual model of two-way dialogic corporate communication, including criteria against which effective communication can be evaluated. We first identify relevant elements of corporate communication. Then we introduce the key concept of connectivity.

We conceptualise connectivity as consisting of three components, namely textual connectivity, intertextual connectivity, and relational connectivity. Connectivity refers to establishing connections between different sections of a text (textual connectivity), between texts of different

*Corresponding author. Email: niamh.brennan@ucd.ie

time periods or different genres[2] (intertextual connectivity), and between firms and their audiences (relational connectivity).

In the third step, we identify seven criteria of effective communication originating in research in linguistics and relate them to the three components of connectivity. We then integrate these elements into a two-way dialogic model of communication. Our conceptual model views the effectiveness of communication as context-dependent and emphasises the importance of building and maintaining relationships between firms and various groups of financial stakeholders. Developments in digital technology and social media warrant a new way of thinking about corporate communication, arising from their capability to establish effective channels of communication with a wider range of shareholders. We discuss how digital technology and social media enable connectivity, focusing on the three components of connectivity and identify directions for future empirical studies focusing on the use of digital technology and social media for dialogic communication between companies and their stakeholders.

Our paper is guided by the following three research questions.

RQ1: What constitutes effective corporate communication with financial stakeholders?
RQ2: How can effective corporate communication be measured?
RQ3: Does effective corporate communication result in benefits for companies?

1.1. *Definitions and terminology*

Bedford and Baladouni (1962) first conceptualised accounting as a communication process between accountants and users of information relating to a firm's 'economic events'. Similarly, Chambers (1966) argues that accounting involves both measurement and communication between organisations and interested parties about a firm's 'economic events and effects' (Lee 1982, p. 152). In discussing Chambers' work, Lee (1982, p. 152) observes: 'Arguably, accounting is as much about communication as it is to do with measurement. No matter how effective the process of accounting quantification, its resultant data will be less than useful unless they are communicated adequately.' In this issue, Lev (2018) raises questions about the effectiveness of accounting measurement. We address the topic of accounting communication.

Accounting researchers predominantly use the term 'reporting' to represent communication between firms and their audiences (e.g. corporate reporting, financial reporting, narrative reporting). This is based on a monologic view (i.e. a single writer/speaker), involving a one-directional process in a written format using genres, such as annual reports, corporate social responsibility (CSR) reports, or press releases, with firms providing and disseminating information to external audiences, who are largely regarded as passive recipients. In contrast, we use the term 'corporate communication' because it encompasses both written and oral communication (and even silence) by means of a variety of channels and media and conceptualises communication as a two-way, dialogic process with information flowing in both directions.

Information about a firm's economic events and effects is contained in audited financial statements and in corporate narratives or narrative disclosures which, as a 'surround' (Davison and Skerratt 2007, p. 4), supplement or complement financial statements (Beattie 2014, p. 121). Conversely, financial statements and corporate narrative disclosures can be viewed as part of the broad set of information available to financial stakeholders (Glover 2012, p. 371). This view recognises that communication between firms and audiences takes a wide range of forms, including numbers, tables, graphs, written narrative, pictures, photos, and cartoons (Cooper 2013, p. 242). Alternatively, corporate communication researchers view financial communication (Argenti 1996), i.e. communication between firms and capital market participants, as a sub-set of corporate

communication, thus forming part of an overall harmonised communication strategy 'so as to create a favourable basis for relationships with groups upon which the company is dependent' (Van Riel 1995, p. 26).

Firms communicate with financial stakeholders to establish and maintain good relationships, to ensure their continued financial support. The US Securities and Exchange Commission (SEC) (1998, p. 4) echoes this view by regarding effective communication as resulting in stronger relationships with investors. Based on our earlier discussion, we refer to communication between firms and capital market participants as 'corporate communication with financial stakeholders' and define it as follows:

Corporate communication with financial stakeholders

Corporate communication in a capital market context constitutes communication between firms and financial stakeholders about the firm's economic events and their effects within and outside the financial statements in the form of words, tables, graphs and pictures using a variety of genres, channels and media, to discharge accountability or aid decision-making to build strong relationships with capital market participants to ensure their continued financial support.

1.2. *A framework of corporate communication in a capital market context*

We first present a framework of corporate communication in a capital market context in Figure 1, which summarises the aspects involved in communication between firms and financial stakeholders. We focus on four aspects of corporate communication: (i) the firm, which communicates with financial stakeholders in writing or orally (or even by means of silence);[3] (ii) the nature of the written/spoken text itself (if there is one), in terms of its genre; (iii) the media for communicating

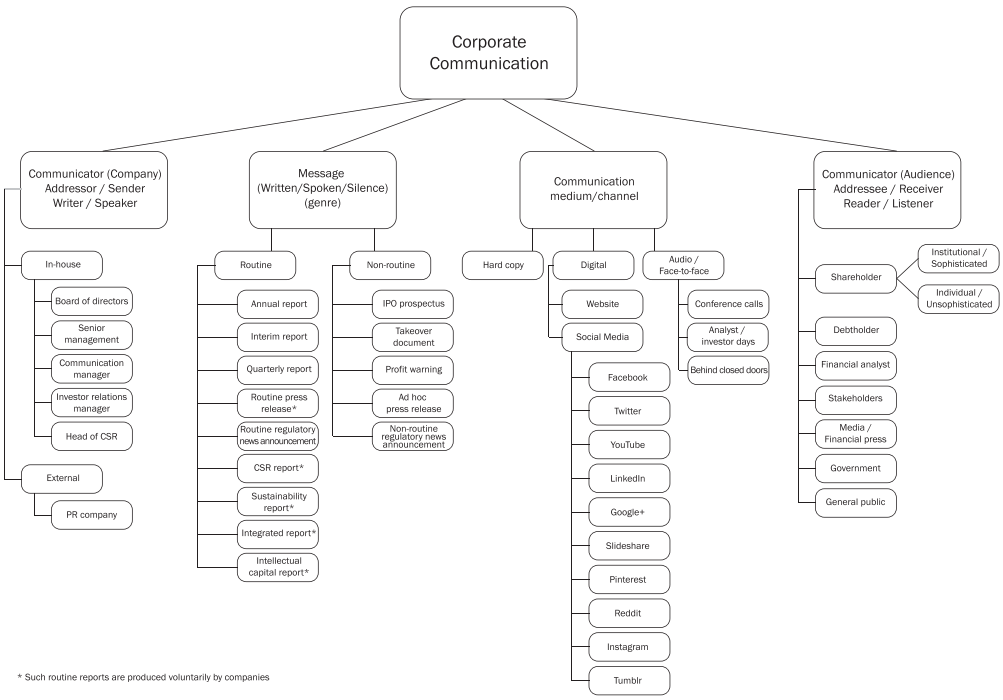


Figure 1. A framework of corporate communication with financial stakeholders.

information about the firm's economic events and effects; and (iv) audiences for corporate communications – reading written texts or listening to (and possibly viewing) oral reports/presentations.

Like the International Accounting Standards Board (IASB) (2017a) 'wider corporate reporting' initiative (which is a broad term to refer to any reporting by companies that falls outside the primary financial statements and the notes), we interpret 'corporate communication' in a broad sense.

To develop and elucidate our model, our paper is structured in six sections. In Section 2, we review guidance on corporate reporting from regulators, standard setters, and professional accounting bodies, reflecting their views on the effectiveness of corporate reports. We consider different perspectives on corporate communication in Section 3, drawing on theories from the communication studies literature. This is followed by our conceptual model of corporate communication, including our key concept of connectivity, together with associated effectiveness criteria, in Section 4. We then discuss the research opportunities for connectivity in corporate communication using digital technology and social media, highlighting related emerging literature in Section 5. We offer suggestions for future research in Section 6, which concludes the paper.

2. Criticism of corporate communication with financial stakeholders

Various capital market constituents, including regulators, standard setters, professional accounting bodies and auditors, have criticised the quality of information provided by listed firms. Criticism of corporate communication is stated in terms of obfuscation (Firtel 1999, p. 871), legalese and jargon (SEC 1998, p. 3), length, complexity (Accounting Standards Board 2000, p. 3), providing a narrow point of view (Federation of European Accountants 2015, p. 13), being boilerplate and obscure (Financial Reporting Council (FRC) (2015, p. 12), indigestible, a box-ticking exercise, compliance-driven (ICAEW 2016, p. 6), unfit for purpose, and needing to 'connect the dots better' (i.e. communicate a cohesive story) (KPMG 2013, p. 8).

One of the earliest initiatives to improve the communication of firms' economic events and their effects is the SEC's (1998) 'Plain English' handbook. In connection with the Plain English initiative, the then SEC Chairman, Arthur Levitt (1997), stated 'disclosure is NOT disclosure if it doesn't communicate' (emphasis in the original). Firtel (1999, p. 894) criticises the SEC's Plain English initiative and questions the SEC's assumption that lay investors can read and understand disclosure documents without assistance. He urges the SEC to abandon the myth of 'the informed layman'. The SEC (1998, pp. 4, 57) acknowledges that good communication entails understanding audience needs and expectations when it observes

> companies that communicate successfully with their investors form stronger relationships with them. … They [companies] see the value of communicating with their investors rather than sending them impenetrable documents. … The final test of whether any piece of writing meets its goal of communicating information comes when humans read it.

The SEC's reference in this quote to 'form[ing] stronger relationships' implies that successful communication is dialogic.

The UK FRC (2015) identifies the overarching principle of good communication in corporate reporting as 'Clear & Concise' (FRC 2015, p. 1). The FRC's Clear & Concise objectives are to encourage communication focused on the needs of the audience (though the FRC does not expand on those needs). The IASB (2017b) compiles an extensive list of what it calls 'ineffective communication' and 'effective communication' in financial statements. The IASB (2017b) provides examples of ineffective communication including: use of generic or boilerplate descriptions; use

of unclear terminology, such as technical jargon; poor organisation of information in financial statements; unclear linkage between related pieces of information, for example, scattering information without providing cross-references; unnecessary duplication of information; using narrative disclosure when a table would be more effective; and omitting material information or including immaterial information that might obscure material information. On the other hand, the IASB's (2017b) principles of effective communication entail information that is: entity-specific, tailored to an entity's own circumstances; conveyed simply and directly; organised to highlight important issues; linked to other information in the financial statements/annual report; not duplicated unnecessarily; provided in a way that optimises comparability among entities and across reporting periods; and in an appropriate format. Most guidance issued by regulators to improve the quality of corporate communication focuses on the quality of writing, i.e. the text itself (e.g. by recommending the avoidance of jargon and boilerplate language).

We view connectivity and its three components (textual, intertextual and relational connectivity) as a key aspect of communicative effectiveness. By adopting a model of corporate communication based on interaction and dialogue, we argue that corporate communication can be improved by offering audiences the opportunity to provide feedback, to query information, and to arrive at a mutual understanding of an issue. This is particularly important in communicating non-routine, complex, or controversial issues.

3. Two perspectives on corporate communication with financial stakeholders

The communication studies literature conceptualises communication in two ways. The two perspectives provide competing and complementary insights into the nature and purpose of communication, namely (i) as 'the transmission of signals or messages over distance for the purpose of control' (Carey 2009, p. 12) (the transmission model) and (ii) as 'a symbolic process whereby reality is produced, maintained, repaired, and transformed' (Carey 2009, p. 19) (the transactional model). The former views communication as a one-directional process involving the transmission of information from a sender and a receiver. By contrast, the latter views communication as an interactive and dynamic process between two or more parties with the purpose of creating meaning.

Grunig and Hunt (1984) highlight three key dimensions of corporate communication (1) the direction of information flow (one-way vs. two-way), (2) the power relationship between the company and its audiences (asymmetrical vs. symmetrical), and (3) the purpose of communication (information, influence, dialogue). If the direction of information flow is solely from the company to its audiences, communication is considered to be one-directional. By contrast, two-directional communication involves information flowing both from the company to its audiences and from audiences to the company. If there is a balance of power between firms and their audiences, then the relationship is regarded as symmetrical. Conversely, an asymmetrical relationship implies an imbalance of power in favour of firms.[4] The purpose of corporate communication is providing information, influencing audiences, or engaging in dialogue. Corporate communication models are characterised by different combinations of assumptions relating to these three dimensions. The transmission model is based on a one-way asymmetrical view of corporate communication aimed at information provision. A variant of the transmission model is based on a two-way asymmetrical view of corporate communication, acknowledging that information flows in both directions, with share price reactions representing the information flow from financial stakeholders to companies. By contrast, the transactional model is based on a two-way symmetrical view of corporate communication aimed at dialogue and mutual understanding.

Building on Grunig and Hunt (1984), we identify three perspectives on corporate communication in a capital market context, namely (1) the one-way asymmetrical information model, (2)

the two-way asymmetrical influence model, and (3) the two-way symmetrical dialogue model. An information strategy entails firms conveying and disseminating information to financial stakeholders who are viewed as passive recipients (one-way asymmetrical communication). A persuasion strategy involves firms attempting to influence the decision-making and behaviour of financial stakeholders in a way that benefits firms. The underlying intention is to obtain the approval and support of largely passive audiences (two-way asymmetrical communication). Conversely, a dialogue strategy entails firms interacting with financial stakeholders, with the aim of arriving at mutual understanding and/or building strong relationships. Here, firms and their audiences influence each other's decision-making and behaviour (two-way symmetrical communication).

The accounting literature has been predominantly based on the transmission view of communication underpinned by an information or persuasion strategy, notably in Chambers' original definition (Lee 1982, p. 153). Alternatively, corporate communication in a capital market context can be conceptualised as a dialogic process between firms and financial stakeholders involving interaction based on active listening, consultation, exchange of opinions and ideas, and audience involvement in decision-making. In challenging the view of professional accounting judgements as if they were objective and unbiased, akin to measurement, Lavoie (1987, p. 580) argues that 'accounting should be understood as … a process of bi-directional and interpersonal communication'. He identifies two elements in accounting communication, namely 'the bidirectional nature of the market communication process and the nature of the information that gets communicated' (p. 601).

Each communication strategy (information, persuasion, dialogue) is suited to specific media and issues. As traditional means of corporate communication such as annual reports and press releases restrict observable audience feedback to behavioural change (such as buying or selling shares or issuing a buy, hold, or sell recommendation), they are suited to an information or persuasion strategy and to communicating uncontroversial and well-understood issues and standard data, such as financial performance. By contrast, non-traditional means of corporate communication, such as online reporting and social media allow observable feedback and negotiation over meaning and are thus suited to a dialogue strategy and to communicating ambiguous, sensitive, controversial or complex issues (Cornelissen 2014, p. 55). Similarly, Lodhia and Stone (2017) argue that 'lean' media, such as printed reports are suitable for conveying well-defined and unambiguous information, whereas 'rich' media such as digital media are suited to conveying potentially ambiguous information accompanying the performance of equivocal and complex tasks.

We compare the two perspectives of corporate communication with financial stakeholders based on the four aspects of the communication process (communicator, message, medium/channel, and audience) outlined in Figure 1, to which we add two further aspects of corporate communication, namely 'relationship' and 'conversation'. For this purpose, we build on Isenmann et al.'s (2007) distinction between 'traditional' print-media focused, and 'sophisticated' digital, corporate reporting.

In Table 1, we compare monologic and dialogic communication, based on a one-way/two-way asymmetrical information perspective versus a two-way symmetrical dialogue perspective. The two perspectives on corporate communication also result in different views on the nature of effective communication. The two perspectives in Table 1 (bottom row) conceptualise effective communication differently in the form of readability as opposed to connectivity. Focusing on the key concept of readability, traditional corporate communication in the form of printed reports is based on the view of effective communication as conveying messages and eliciting a response. Effective communication is measured using readability indices (e.g. Flesch, Fog, Lix, and the Bog Index (Bonsall et al. 2017)) which are based on word and sentence length. By contrast, dialogic corporate communication is characterised by connectivity, i.e. linking information and connecting firms and their audiences.

Table 1. Two perspectives on corporate communication.

	Monologic ⟶	Dialogic
Aspects of corporate communication		
① ***Communicator (company)***		
Production	Managerial closed-shop procedure	Quasi-public effort
Communication strategy	(a) *Information*: Convey and disseminate information to financial stakeholders (b) *Persuasion*: Prompt financial stakeholders to modify their behaviour based on the information received	• *Dialogue*: Arrive at mutual understanding; build strong relationships
② ***Message (corporate document)***		
Issues	Routine, straightforward and uncontroversial issues	Non-routine, complex and controversial issues
③ ***Medium/channel***		
Format	Hard copies	Digital; social media
Media richness	*Lean media*: Print-media (hard-copy) fixation	*Rich media*: Cross-media availability
Frequency of communication	Routine and ad hoc mandatory and voluntary corporate reporting	Continual exchange of ideas
④ ***Audience (financial stakeholders)***		
Audience differentiation	Mass communication: One-size-fits-all	Customised towards different audiences
⑤ ***Relationship***		
Audience participation	*Asymmetrical*: one-way/two-way; company-controlled	*Symmetrical*: two-way; audience participation
⑥ ***Conversation***		
Feedback	Few opportunities for verbal feedback and audience input	Many mechanisms for comment and criticism
Nature of discourse	Monologue	Dialogue
Effective communication		
Information	Received, read, and acted upon by users	Understood, opinions are sought; compromise is achieved, iteratively acted upon by users and preparers
Key concept	Readability	Connectivity

Source: Adapted from Cornelissen (2014) and Isenmann et al. (2007).
⟶: This indicates that communication from monologic to dialogic is a continuum.

The key differences between monologic and dialogic corporate communication with financial stakeholders outlined in Table 1 are discussed in more detail in Sections 3.1 and 3.2. We argue that dialogic corporate communication more successfully captures the complex process involved in communication. In Section 4, we develop the concept of connectivity and outline its relationship with the effectiveness of corporate communication.

3.1. *Monologic corporate communication with financial stakeholders*

Most accounting research is premised on the transmission model of communication as captured by Shannon and Weaver's (1949) mathematical model of communication. It views communication as a linear asymmetrical one-way process focusing on the transmission of messages

from a sender to a receiver, while ignoring contextual factors (Chambers 1966, Lee 1982, Mock et al. 2012, Merkl-Davies and Brennan 2017). The modified version of the transmission model, which includes a feedback loop, and which conceptualises communication as a two-way asymmetrical process aimed at influencing stakeholder decision-making, informs much of accounting research (e.g. Tan et al. 2014, Asay et al. 2016). It accommodates feedback in the form of (mostly) non-verbal responses, such as the buying and selling of shares. Both the original mathematical model and the modified transmission model view recipients as passive participants in the communication process. Accordingly, we follow the definition of monologic corporate communication in a capital market context of Merkl-Davies and Brennan (2017, p. 439):

Monologic corporate communication

Corporate communication in a capital market context is concerned with the transmission of messages about the firm's economic events and their effects by firms (preparers) to financial stakeholders (users) to discharge accountability, aid decision-making by prompting them to modify their behaviour based on the information received, to ensure their continued financial support.

3.2. *Dialogic corporate communication with financial stakeholders*

The alternative transactional model views corporate communication as more than just the disclosure and transfer of relevant information, but a process involving story-telling and relationship-building. Shiller (2017, p. 971) argues that 'narratives, stories … are really central to human thinking and motivation' and 'connect activities to deeply felt values and needs' (p. 967). Adding psychological, relational, social, and cultural dimensions, the transactional model views communication as a dynamic and interactive process, reciprocally linking two more active participants who engage in a dialogue and who are situated in a specific communicative context with the aim of reaching a shared understanding of a situation or consensus. Drawing on these insights, we follow the definition of dialogic corporate communication in a capital market context of Merkl-Davies and Brennan (2017, p. 439):

Dialogic corporate communication

Corporate communication in a capital market context is concerned with the processes whereby firms and their financial stakeholders interactively create, sustain, and manage meaning about the firm's economic events and their effects to build strong relationships with capital market participants to ensure their continued financial support.

4. A conceptual model of effective corporate communication with financial stakeholders

We develop a conceptual model of effective corporate communication with financial stakeholders based on the view of communication as a two-way symmetrical process as outlined above. We build on Merkl-Davies and Brennan (2017) by adding criteria for evaluating its effectiveness by drawing on research in text linguistics. Communication comprises a range of 'sub-phenomena' (Fortner 1994, p. 210) or elements of communication, including the communicator, the audience, the message, the relationship, the conversation, external organisations, the media, and society (Littlejohn and Foss 2011).

Research based on monologic corporate communication solely focuses on the communicator, the message, and the recipient/audience, while disregarding the context in which communication takes place. Thus, monologic corporate communication is either explicitly or implicitly based on a one-directional/two-directional asymmetrical information/persuasion model of communication.

Contextual factors, including the interaction between the communicator and the audience in the form of a dialogue, and the relationship between the two parties (micro-context), external organisations, the media, and society (macro context), are ignored. However, these constitute a crucial part of a two-way symmetrical dialogic perspective, which forms the basis of the conceptual model we develop in this paper.

Our conceptual model incorporates connectivity as a key feature of communicative effectiveness. Our view of connectivity is grounded in linguistics, particularly text linguistics and discourse analysis, which view texts as characterised by textuality, i.e. 'the quality of coherence or connectivity', which, in turn, depends on the textual organisation of the text itself (textual connectivity) and 'the interpretive activity of a community of readers' (intertextual and relational connectivity) (Hanks 1989, p. 96). Hence, without connectivity, there is no meaningful communication. In corporate communication in a capital market context, connectivity entails linking information on the company's economic events and their effects and connecting the company with shareholders, financial analysts, and the financial press. We differentiate between three components of connectivity, namely (1) textual connectivity (connecting different parts of a text), (2) intertextual connectivity (connecting text to other texts), and (3) relational connectivity (connecting firms to audiences by creating opportunities for feedback, dialogue, and customisation).

What renders communication effective? de Beaugrande and Dressler (1981) propose seven standards (i.e. criteria) of textuality. These are constitutive principles of communication in the sense that they must be fulfilled for communication to be effective. If a text does not satisfy the seven criteria, communication will be ineffective. The criteria are summarised and described in Table 2. Cohesion and coherence are text-centred standards and can be evaluated by analysing texts in isolation. Intertextuality renders corporate communication dialogic. Intertextuality manifests itself in direct and indirect quotes and direct references to other texts. Intentionality, acceptability and informativity are user-centred standards in the sense that they are specific to the users/individuals or groups of people (i.e. communicator and the audience) involved in a communicative situation, i.e. a firm communicating with its shareholders in a press release or a conference call. The IASB (2010) identifies characteristics of accounting information that make it useful, including relevance, faithful representation, comparability, verifiability and understandability. These characteristics are implicitly aimed at rendering communication more effective. For example, faithful representation, comparability, verifiability and understandability are captured by the 'acceptability' criterion in Table 2 – i.e. that the text is credible and relevant to the audience. Finally, situationality is a context-centred standard in that it can only be evaluated by analysing a particular text in its specific communicative context. The IASB's (2010) characteristic of relevance reflects the situationality criterion, which refers to the text being relevant in a specific communicative situation.[5]

The three components of connectivity underpin de Beaugrande and Dressler's (1981) seven standards of textuality/effectiveness criteria, in the sense that achieving cohesion and coherence results in textual connectivity, achieving intertextuality results in intertextual connectivity, and achieving intentionality, acceptability, informativity, and situationality results in relational connectivity. Figure 2 illustrates how the seven criteria of effective corporate communication relate to the five elements of dialogic interactive communication underpinning the conceptual model developed by Merkl-Davies and Brennan (2017), namely (1) the text producer (company: intentionality), (2) the audience (capital market participants: acceptability, informativity), (3) the text (corporate text: cohesion, coherence), (4) the relationship between the company and its financial stakeholders, and (5) the conversation between the company and its financial stakeholders (intertextuality). The diagram features the micro-context encompassing regulators and financial analysts, and the wider social context, encompassing external organisations, the media, and society (situationality).

Table 2. Relating the three aspects of connectivity to seven criteria of effective communication.

	Explanation	Examples
❶ ***Textual connectivity***		
① Cohesion	Cohesion is concerned with the way surface features of the text (i.e. words and phrases) are linked to each other grammatically, to organise text, using signposts to hold together the writing so it is easy to understand.	Use of repetition, conjunctions (e.g. 'and', 'but', 'although') or pronouns (e.g. 'the economy' – 'it').
② Coherence	Coherence concerns the way concepts introduced in the text are linked to each other in meaningful ways, so readers can understand the way the ideas are organised.	'recession' – 'consumer spending' – 'sales'), i.e. 'connecting the dots' (KPMG 2013, p. 8).
❷ ***Intertextual connectivity***		
③ Intertextuality	Intertextuality refers to 'the relationship between a given text and other relevant texts encountered in prior experience' (Neubert and Shreve 1992, p. 117).	Specifically, intertextuality refers to audiences being able to interpret the text due to their familiarity with the text genre (e.g. annual report) and drawing on prior knowledge of the firm (e.g. prior earnings press releases or annual reports) and thus being able to interpret the message conveyed in the text.
❸ ***Relational connectivity***		
④ Intentionality	Intentionality refers to the communicative purpose or intention of the communicator.	A firm persuading new shareholders to buy shares by issuing an initial public offering (IPO) prospectus.
⑤ Acceptability	Acceptability is the other side of the coin of intentionality in that it is concerned with the text being credible and having some relevance to the audience.	Prospective shareholders finding the information in the IPO prospectus credible and useful.
⑥ Informativity	Informativity relates to the text containing some expected or new information. Informativity results in timely, accurate, and reliable information.	An IPO prospectus containing relevant new information about projects the firm plans to take up, which have the potential to increase future cash flows
⑦ Situationality	Situationality refers to the text being relevant in a specific communicative situation.	The relevance of an IPO prospectus in a capital market context characterised by existing and prospective investors, financial analysts, and the financial press.

Source: The seven criteria of effective communication are based on de Beaugrande and Dressler's (1981) seven standards of textuality.

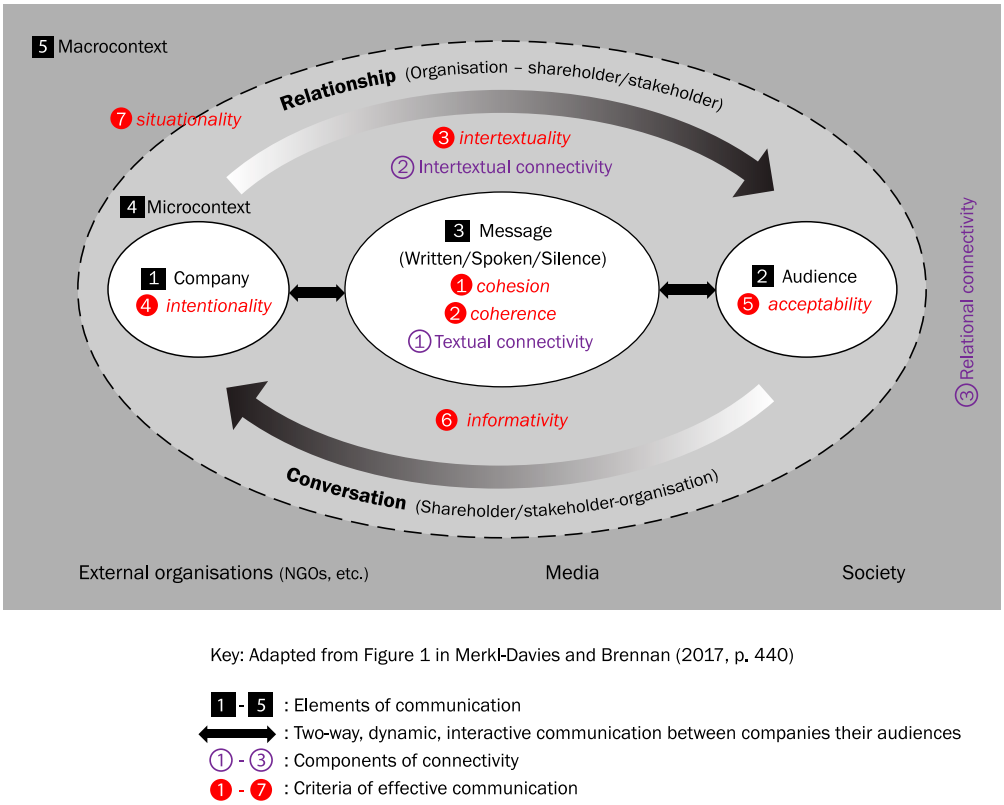


Figure 2. Model of corporate communication and associated effectiveness criteria.

We acknowledge that Figure 2 is an idealised model, implying symmetrical communication between companies and their audiences. Moreover, we recognise that there is typically not the same level of inherent demand from investors for sending messages to managers as receiving messages from them.[6] Characteristics of companies and audiences, power relations between them, and contextual contingencies will result in infinite variations in corporate communication in practice.

Standard-setters' recommendations, including the famous SEC (1998) Plain English campaign, focus solely on text-centred standards of textuality, particularly cohesion. They suggest that the effectiveness of corporate communication can be improved by changing the way the documents are written (e.g. less jargon, shorter sentences, less boilerplate language). Print-based traditional corporate communication is limited in terms of creating connectivity, due to its inability to incorporate user- and context-centred aspects of communicative effectiveness, the focus being on textual connectivity in the form of cohesion and coherence (i.e. word choice, writing style, document structure). Here, words and layout are used to create connections within a text. This narrow focus on textual connectivity and text-centred aspects of communicative effectiveness is mirrored in empirical accounting research employing a range of readability indices which proxy communicative effectiveness in terms of word and sentence length (for a summary of this research, see Loughran and McDonald 2016).

However, user- and context-centred aspects, which focus on text-external factors, such as the education and professional knowledge of audiences, are difficult to prescribe and analyse. Digital

media platforms allow firms to communicate with a wider range of financial stakeholders more effectively by incorporating features which address audience- and context-based standards of textuality, including acceptability, informativity, intertextuality, and situationality. This, in turn, increases intertextual and relational connectivity.

5. Harnessing the connectivity of digital media

In this section, we assess how digital communication and social media provide opportunities for improving connectivity in corporate communication for a wider range of shareholders. We argue that the most fruitful avenue for improving the effectiveness of corporate communication for a wider range of shareholders is to make use of the media richness of digital technology, including hyperlinks, navigation devices and customisation tools. In Section 4, we discussed the key concept of connectivity as being important for effective communication. The concept of connectivity is already in use in the accounting literature. The International Integrated Reporting Council (IIRC) (2013a,b) identifies 'connectivity of information' as one of its seven guiding principles. IIRC sees the potential of digital media for enhancing connectivity, as follows:

> Communications technology is playing an ever more important role in corporate reporting. Digital reporting platforms, including web-based applications, are improving connectivity. Digital reporting standards such as XBRL play a critical role in sharing and connecting information electronically. By creating technology-based feedback loops and customizing the presentation of information to suit readers' preferences, organizations are better connecting to report users. (IIRC 2013b, p. 1)

IIRC's connectivity of information is thus used in a different but complementary manner to the concept of connectivity in communication in our paper. EY (2017) shows how connectivity of information can be operationalised by identifying features of integrated reporting that enhance connectivity of information, including effective cross-referencing, the use of icons, 'pop-up' narrative boxes, navigation tools, the use of tables, order of presenting disclosures, linking disclosures and the use of summarised financial statements.[7]

Evidence suggests that personal contact is a key determinant of the effectiveness of persuasive communication in terms of securing financial or political support (DellaVigna and Gentzkow 2010). Dialogic communication is more easily achieved in spoken, real-time communication between companies and capital market participants via conference calls and face-to-face communication during annual shareholder meetings or investor and analyst days. In their study of face-to-face communication between firms and capital market participants by means of conference presentations and analyst/investor days, Kirk and Markov (2016) find that both investors and financial analysts prefer analyst/investor days, because the more flexible format and longer duration provides greater opportunity for interaction. Institutional shareholders and analysts have greater access to such communication compared to small, individual shareholders. Digital communication can empower individual shareholders. Due to their interactive and relational properties, digital media are particularly suited for dialogic corporate communication. Digital media interaction thus has the potential to change asymmetric power relations between firms and a wider range of their shareholders. Digital media enfranchises currently disenfranchised small shareholders (e.g. crowdfunding investors or 'digital shareholders' (Schwartz 2015)).

However, the potential of digital media is not always realised. They are often used in similar ways to print-based corporate communication, i.e. based on a two-directional asymmetrical model of communication intended to influence audience decision-making, rather than achieving mutual understanding and relationship-building (Grunig 2009). Grunig (2009) argues that some types of digital media are particularly well suited to two-way symmetrical dialogic communication, including open corporate social media sites, Twitter, and interactive online community

contribution. By contrast, static corporate web sites and FAQ (frequently asked question) pages are more suitable for one-directional/two-directional asymmetrical communication.

Specific digital media characteristics increase the communicative effectiveness of corporate communication. Lodhia and Stone (2017) identify eight characteristics of media richness.[8] We argue that the more characteristics of media richness a type of digital medium exhibits, the higher its communicative effectiveness. In addition to media richness, we contend that dialogic corporate communication also needs to display media connectivity, i.e. the capacity of digital media to create connections.

We focus on three components of media connectivity, namely (1) connecting different sections of a text, e.g. by navigation devices and hyperlinks (textual connectivity), (2) connecting texts of different time periods or different genres, e.g. by navigation devices and hyperlinks (intertextual connectivity), and (3) connecting the firm with its audiences, e.g. by embedding e-mail addresses and phone numbers (relational connectivity). De Beaugrande and Dressler's (1981) criterion of acceptability is especially important in online communication.

Rivera-Arrubla and Zorio-Grima (2016) propose seven ways of using digital corporate communication to increase connectivity. Drawing on these insights, Table 3 contrasts the ways of implementing the three components of connectivity (textual connectivity, intertextual connectivity and relational connectivity) in digital media to increase communicative effectiveness. To illustrate the practical application in a digital media context of de Beaugrande and Dressler's (1981) seven standards of textuality, we match them with equivalent functions of digital media based on Rivera-Arrubla and Zorio-Grima (2016) and Lodhia and Stone (2017).

While communication via hard copy reports in a one-size-fits-all format is largely monologic, and only allows for limited observable interaction, digital communication allows for target-group tailoring, facilitates stakeholder dialogue, and enables observable interaction between companies and their audiences (e.g. Isenmann et al. 2007). The challenge for companies is multiple addressability which, with technology, such as webcasting and website conferencing, facilitates report customisation for different audiences. Relational connectivity (e.g. embedding e-mail addresses and links to corporate social media sites) provides internet users with the opportunity to integrate and disseminate information, including social critiques of such information.[9]

In Sections 5.1 and 5.2, we review prior corporate communication research, which addresses the principles of effective communication by mobilising the concept of connectivity in digital media. We first discuss studies which focus on developing ways of measuring connectivity. Table 4 summarises this research and is organised according to the three aspects of connectivity, namely textual, intertextual, and relational connectivity. We then summarise the empirical literature on the benefits of connectivity for companies.

5.1. *Measuring the connectivity of digital media*

While prior studies focus on measures of textual connectivity in hard copy corporate communication, there are few, if any, studies in accounting on textual connectivity focusing on digital corporate communication. Compared to textual connectivity, the prior literature has focused relatively less attention on developing measures of intertextual and relational connectivity. We discuss prior studies focusing on the measurement of connectivity and provide a summary in Table 4.

5.1.1. *Intertextual connectivity*

Digital communication provides companies with greater opportunities for implementing intertextual connectivity. A few early studies on internet reporting via corporate websites examine the use of hyperlinks within corporate documents to facilitate ease of access to information and to aid

Table 3. Using connectivity to increase communicative effectiveness in digital media.

Connectivity	Definition	Communicative effectiveness criteria[a]	Implementation Digital media
❶ textual connectivity (text-centred)	• Ability to connect different sections of a text	① Cohesion ② Coherence	• Navigation devices; use of hyperlinks
❷ intertextual connectivity	• Ability to connect text from different time periods • Ability to connect text from different corporate genres	③ Intertextuality	• Cross-referencing: use of electronic links, hyperlinks, menus, portals, tags, summary sections, and cross-referencing tools useful for reviewing additional information in another section of the report and for avoiding repetition. • Drill-down capability: electronic links and cross-referencing tools to external links, useful for deepening the search for additional information by readers.
❸ relational connectivity (context-centred)	• Capacity to organise information in various forms to enhance understanding by a variety of audiences • Ability to enhance the presentation of information • Ability to personalise information on needs and circumstances of audience	⑤ Acceptability	• Glossary: containing definitions of technical expressions used in the report that may be difficult to understand by users. • Visual techniques: icons and visual strategies (graphics, animation, multimedia) to complement text-based information and to direct readers to other report content • Report customisation: presenting information in a friendly way to meet readers' preferences, allowing users to customise language, display information in user-defined templates, or download specific sections.
	• Ability to locate and interrogate information		• Digital reporting platforms: Digital applications or social media that allow users to automatically import, filter, or search for specific data.
	• Capacity for interaction allowing for engagement between firm and audiences		• Feedback loops: navigation devices allowing for feedback between users and the company such as e-mail addresses, phone numbers, surveys, hyperlinks, alerts, electronic surveys, feedback forms, discussion fora, wikis, bulletin boards, chatrooms, and QR (Quick Response) codes that enable both requests for information and receipt of feedback from stakeholders.
	• Ability to reach diverse audiences		• Webcasting and website conferences
	• Capacity to enable timely communication	⑥ Informativity	• Immediate or continuous reporting

Sources: Adapted from de Beaugrande and Dressler (1981), Rivera-Arrubla and Zorio-Grima (2016), and Lodhia and Stone (2017).

[a]④ Intentionality comprises a set of goals the communicator wishes to achieve with the text. It is not shown in this table because communicative goals are specific to the genre and to the specific communicative context. ⑦ Situationality constitutes the relevance of information in a specific communicative context. It is not shown in this table because of the multitude and variability of communicative contexts.

Table 4. Empirical studies on aspects of connectivity in corporate communication on digital media platforms.

Panel A: Means of connectivity

Connectivity	Means of connectivity	Prior research
❶ textual connectivity	Cohesion	We could not identify any studies using digital media in this category
	Coherence	
❷ intertextual connectivity	Hyperlinks	Yang and Liu (2017)
	Tags: cashtags, hashtags	Yang and Liu (2017), Gomez-Carrasco et al. (2017)
	Cross-referencing tools useful for reviewing additional information in another section of the report and for avoiding repetition.	Rivera-Arrubla et al. (2017), Venturelli et al. (2016)
	Drill-down capability: electronic links and cross-referencing tools to external links, useful for deepening the search for additional information by readers.	Rivera-Arrubla et al. (2017)
❸ relational connectivity	Glossary	Rivera-Arrubla et al. (2017)
	Report customisation	Rivera-Arrubla et al. (2017)
	Digital reporting platforms	Rivera-Arrubla et al. (2017)
	Visual techniques: icons and visual strategies	Yang and Liu (2017), Rivera-Arrubla et al. (2017)
	Webcasting and website conferences	Baue and Murninghan (2011b)
	Online participation in meetings	Geerings et al. (2003)
	Feedback loops	Rivera-Arrubla et al. (2017)
	Best tweets	Yang and Liu (2017)

(*Continued*)

Table 4. Continued.

Panel B: Measuring connectivity

Connectivity	Measuring connectivity	Prior research
❸ relational connectivity	Dialogic capacity: ease of interface, usefulness of information, conservation of visitors, return-visit generation, and dialogic loop	Kent et al. (2003)
	Sophistication index: Web 2.0: Podcasts from management, RSS or Atom, Real time webcasts of company events, Videos from management, at corporate web site, Videos from shareholders, at corporate web site, Videos from employees, at corporate web site, Videos from the public, at corporate web site, Widgets; Social media: Blogs from management, Blogs from shareholders, Blogs from employees, Blogs from the public, YouTube channel redirected from corporate web site, Social network of the corporate web site users	Bonsón and Flores (2011)
	Social media dialogue index: Internal: Use of dialogical tools on the IR website, intensity of use, intensity of feedback, degree of implementation of networking function; External: Use of social media on external platforms with feedback possibility, intensity of use on external platforms, dialogue-oriented elements, intensity of dialogue	Koehler (2014)
	CSR stakeholder engagement score: Website level: List of report sections downloadable, presence of download manager, ability to create graphs, tables, ability to share webpage via email; Social media level: email contact details, phone contact details, chat, newsletter, feedback form, blog social network, mobile and app	Venturelli et al. (2016)
	Online corporate reporting index: content richness, presentation, accessibility, and language and currency	Saleh and Roberts (2017)
	Tenor-of-individual-comments index; Interaction index	Bellucci and Manetti (2017), Manetti et al. (2017)
	Connectivity index: digital reporting platform, integrated report customisation, feedback loops, cross-referencing, drill-down capability, visual techniques, glossary	Rivera-Arrubla et al. (2017)
	Stakeholder dialogue and relational maintenance strategies on Facebook: Application of dialogic loop, conversational human voice scale, communicated relational commitment scale	van Wissen and Wonneberger (2017)
	Stakeholder engagement score: Inclusivity (stakeholder mapping), compliance (goals), responsiveness (channels), inclusiveness (redemption), inclusivity/materiality/responsiveness, responsiveness (challenges), materiality, completeness (stakeholder engagement stand-alone document), all reporting principles (stakeholder engagement count)	Venturelli et al. (forthcoming)

navigation therein. More recent studies use the features of social media, in effect to assess intertextuality (see Table 4). Hashtags and cashtags are used to unify tweets about a specific topic and to engage wider audiences (Gomez-Carrasco et al. 2017) or to influence how information is disseminated (Yang and Liu 2017). For example, Yang and Liu (2017) study the use of hyperlinks in tweets to direct audiences to information on corporate websites.

5.1.2. *Relational connectivity*

Relational connectivity connects companies with their audiences, thus enhancing the ability of companies to respond to stakeholder needs, interests, or expectations. The means of establishing relational connectivity are summarised in Panel A in Table 4. Baue and Murninghan (2011a) argue that the move from 'static' Web 1.0 (first stage in the World Wide Web, made up of web pages connected by hyperlinks) to 'interactive' Web 2.0 (i.e. the second stage of development of the Internet moving from static to dynamic web pages, and to user-generated content, usability, and inter-operability for end users) enabled the transition from one-way to two-way communication, underlining Web 2.0's interactive nature.

Through a sustainability reporting lens, Baue and Murninghan (2011b) illustrate the application of Web 2.0, which empowers users to collaborate and co-create, using seven case studies. They differentiate three types of stakeholder interactions: one-way, two-way, and multi-directional. They identify progression in the use of Web 2.0 technology, from blogs using RSS (Really Simple Syndication) feeds to syndicate content, including audio podcasts and videos, to tagging content, to webinars and webchat, which connect participants in discussion, to micro-blogs such as Twitter and social networks, such as Facebook, which enable multiple connections between participants. Tagging allows users to better control and navigate content (by embedding hashtag, dollartags and video/visuals), rather than with language/words.

Table 4 (Panel A) illustrates the techniques for increasing connectivity using social media. These include examples of intertextuality via hyperlinks, hashtags and dollartags where, rather than using words or quotes, the features of digital communication link documents to other documents. eXtensible Business Reporting Language (XBRL) tags elements of corporate reports, making it easier for users to navigate these documents. Using video links in tweets is a way of increasing informativity, i.e. relational connectivity, because they help build and maintain constituencies by enhancing engagement and interactivity.

Some studies assess the intensity or effectiveness of corporate digital media use (i.e. they measure connectivity) by computing an index (Panel B, Table 4), for example: dialogic capacity (Kent et al. 2003), sophistication index (Bonsón and Flores 2011), social media dialogue index (Koehler 2014), CSR stakeholder engagement score (Venturelli et al. 2016), connectivity index (Rivera-Arrubla et al. 2017), conversational human voice scale and communicated relational commitment scale (van Wissen and Wonneberger 2017), tenor-of-individual-comments index and interaction index (Bellucci and Manetti 2017, Manetti et al. 2017) and, finally, a stakeholder engagement index (Venturelli et al. forthcoming). These studies draw on the means by which digital media (Panel A, Table 4) can enable connectivity (Panel B, Table 4). They focus on the use of digital media for dialogic purposes between companies and their audiences (Bonsón and Flores 2011, Koehler 2014, van Wissen and Wonneberger 2017, Venturelli et al. 2016, forthcoming). Manetti et al. (2017) and Bellucci and Manetti (2017, p. 875) use the phrase 'dialogic accounting', by which they mean organisations 'exposed to diverse perspectives and interests from its various stakeholders' in contrast to 'monologic accounting'. Kent et al. (2003) warn that dialogic loops are only dialogic if the organisation responds to feedback from users. Reflecting this potential pitfall, van Wissen and Wonneberger (2017) find that organisations in their

survey were more focused on technical and design aspects, with genuine stakeholder dialogue and relational maintenance strategies barely used.

We provide evidence in this section of early-stage research which uses digital media to measure connectivity. In the next section, we discuss the benefits of connectivity for companies.

5.2. *Benefits of connectivity for companies*

In a sustainability reporting context, Isenmann and Kim (2006) identify benefits of dialogue-oriented reporting (i.e. connectivity), including gaining stronger relationships with stakeholders, thereby preventing and avoiding risk to shareholders, generating knowledge from a network of relationships, and developing reputation derived from good stakeholder relations. In the context of product recalls, Lee et al. (2015) identify benefits for companies of online dialogic reporting. These comprise monitoring and influencing the direction of online dialogue, including observing and directly responding to customers' inquiries with information, empathy, and even regret. Online dialogue can help firms regain credibility and lessen the public's negative view of firms and their products. Lodhia and Stone (2017) concur, noting the benefit of internet-based technologies' capacity to enable 'concurrency', i.e. the use of technologies to facilitate interaction. Isenmann (2011) elaborates on the technical aspects that bring benefits, such as intensified stakeholder dialogue, user interactivity, information on demand, and moving from 'one-size-fits-all' publications on print media towards customised reports available on different media. In the context of US and Canadian public transportation agencies providing public information via Facebook and Twitter, Manetti et al. (2017) conclude that allowing stakeholders to receive real-time feedback and to engage in conversations are key features of social media, which facilitate authentic dialogic communication.

Recent research based on share price reactions, bid–ask spreads and experiments suggests that investors value corporate communication via social media (Cade forthcoming, Du and Jiang 2015, Zhou et al. 2015). This research implicitly assumes that investors value the quantity, frequency, or timeliness of disclosures provided by social media platforms, rather than the ability to interact with companies. However, Kirk and Markov's (2016) comparison of investor and analyst responses to conference calls versus analyst/investor days suggests that their preference for the latter (measured in the form of share price reactions and number of analyst forecasts) is also due to the increased relational connectivity inherent in analyst/investor days. Lee et al. (2015) question whether social media provide firms with net benefits, in the crisis setting involving product recalls. While interactivity enabled by social media allows firms to monitor and respond to customer concerns, conversely it provides disgruntled customers with a forum to air negative comments – not only with firms but also with other stakeholders. This raises the question whether the costs of losing control of online dialogue outweigh the benefits of responding to customers concerns. Lee et al. (2015) find that firms with any one of four social media platforms experience less pronounced negative share price reactions to the announcement of product recalls than firms with no social media. However, the benefits are reduced with more interactive social media platforms, suggesting that the loss of control over social media content diminishes their overall benefits for companies. Jung et al. (forthcoming) draw similar conclusions, observing that firm-initiated social media dissemination may improve a firm's information environment, but user-initiated dialogues not controlled by the firm may have a countervailing effect.

Sprenger et al. (2014a) study the market reaction to good and bad news, using microblogging real-time news in the form of stock-related Twitter messages. Online stock fora facilitate group connectivity among investors in the form of investor discussion/conversations. Sprenger et al. (2014a) assume that investor discussion/conversations provide additional information, either in terms of a new information source or by means of salience – (re)directing investors' attention

towards particular stocks. Interpersonal group connectivity is valuable to investors, especially to day traders, rather than to large-volume institutional investors (Sprenger et al. 2014b). Saleh and Roberts (2017) assess the benefit of online corporate reporting for financial analysts with mixed results, finding that better online corporate reporting is associated with higher analyst following, but not with improved analyst forecasting. Yang and Liu (2017) examine improving and declining performers' disclosure of earnings on Twitter by FTSE 100 companies. Their methodology uses the unique features of Twitter to assess the outcome of the disclosure in the form of the 'Best Tweets' function. They find that firms behave opportunistically, emphasising positive information and understating negative information. Gomez-Carrasco et al. (2017) examine CSR Twitter activity of Spanish Banks for evidence of dialogue between stakeholders. While they find that CSR issues are amply discussed, there is a limited dialogue between the parties. Van Wissen and Wonneberger (2017) emphasise the benefit of a dialogic perspective in terms of relationship maintenance. They operationalise relationship maintenance in two ways: Conversational human voice (a scale based on personalisation of the message, use of invitational rhetoric, informal speech, or a sense of humour, admitting a mistake or treating others with empathy) and communicated relational commitments (i.e. commitment and desire to maintaining or building relationships with stakeholders, general commitment to stakeholders, references to future or long-term commitments, the nature of the organisation, and quality of relationships). They find that conversational human voice as a relational maintenance strategy has a positive impact on stakeholders' interest and engagement.

We show in this section that greater connectivity benefits firms. Much of the research relates to the benefits of firms building and maintaining relationships with their stakeholders. However, giving voice to stakeholders also entails risk in terms of facilitating the dissemination of negative views. Investors also benefit from better connectivity with companies, and also from improved interpersonal group connectivity among individual investors, such as day traders.

6. Conclusion

In this paper, we introduced the concept of connectivity from the communications literature, together with seven standards/criteria of effective communication. We show how connectivity in corporate communication is enabled by digital media. We advocate using digital media as a means of communicating with a wider group of shareholders, beyond institutional shareholders who have privileged access to information at events such as conferences and investor days. As Morgan (2015) observes:

> Organizations should consider what it means to operate in a world where everyone is connected. Where every employee can share their experiences working for a company and where every customer can provide feedback for other customers. When it comes to connectivity, we are only going to grow and expand our reach. It is best to make any changes now, to prepare for the increase we are seeing in social sharing, communication, and global networking.

Empirical research is beginning to examine corporate online dialogue with stakeholders and, to a lesser extent, with shareholders. Researchers have made use of digital means of enabling connectivity to construct various indices to capture the dialogic/relational connectivity in such communication. Researchers generally agree on the benefit of connectivity and online dialogue for stakeholders, but empirical findings on the benefits for shareholders is mixed, mainly arising from the risk of loss of control of the message with more interactive online digital media. Demand for digital dialogic communication is not uniform. Shareholders, particularly large institutional investors, are more likely to prefer interpersonal dialogic communication in the form of

private face-to-face, behind-closed-doors meetings, which is perceived as giving them an advantage over transparent mass communication over the internet.

Regulators' attention has been focused on improving textual connectivity (emphasising clear language) when corporate communication has progressed. In digital communication, intertextual connectivity and relational connectivity are more crucial and can be achieved digitally. Digitalisation and social media have already changed financial communications (Koehler 2014). Researchers can now take advantage of 'the digital revolution' in corporate communication. Research on the use of social media for corporate reporting is at an early stage. Debreceny (2015) sets out an extensive agenda for future research of social media, including the nature of discourse on social media around corporate events, the role played by increasingly real-time interaction between market participants on Twitter, the use of social media by companies and its potential market impact and the influence of social media on financial and integrated reporting.

These changes imply that researchers will need to move from using readability indices to measure reading difficulty/complexity and develop methods to measure connectivity. Collaboration with computer science researchers (who study connectivity of digital media) may provide fruitful opportunities for accounting researchers. We also call for more empirical research implementing the various connectivity indices discussed in Section 5.1. For example, future research could use Koehler's (2014) social media dialogue index to examine whether financial analysts or investors value relational connectivity afforded by social media platforms.

There is also limited research on organisation–public dialogue. Such research requires the mobilisation of research methods from communication studies. Romenti et al. (2016) differentiate studies measuring dialogic interactivity, dialogic conversation and dialogic engagement. Conversation analysis can be used to study the interactional dimensions of corporate communication, for example, as applied in Houghton et al. (forthcoming) and as suggested in Jewitt et al. (2017). After summarising existing measures of dialogic conversations, Romenti et al. (2016) suggest a method for assessing the quality of conversation/dialogue between companies and digital publics on social media. Yang and Kang (2009) use four dimensions to capture the quality of dialogue in blogs: contingency interactivity, self-company connection (the cognitive dimension), company attitude (the attitudinal dimension), and word-of-mouth intentions (the behavioural dimension). These methods are all adaptable to a corporate communication context. Yang et al. (2015) develop an organisation–public dialogic communication scale, comprising 2 factors and 28 items. The propensity of people to interact on social media is captured by Blazevic et al. (2014) in the form of a General Online Social Interaction Propensity (GOSIP) scale. Bloomfield (2008, p. 252) highlights a benefit of this kind of research, including the ability to examine more spontaneous communication and conversations.

The web has the potential to transform traditional relationships between companies, their shareholders and their stakeholders in such a way that they increasingly collaborate to solve problems, create ideas and to rebuild trust in capital markets.[10] The current power imbalance between companies and stakeholders, reflected in asymmetric one-way communication, is beginning to shift. This is evidenced by increasing shareholder activism, both in the US and in Europe.[11] The influence of power relations on effective communication is beyond the scope of this paper, but merits future research. Digital media have transformed the way we communicate with each other. Companies will have to adapt to this 'brave new world' in which they no longer have control over the information environment.

Acknowledgements

We are grateful to the Institute of Chartered Accountants in England and Wales for inviting us to prepare this paper for its Information for Better Markets Conference in December 2017, and for feedback from Alison

Dundjerovic, Robert Hodgkinson, Gillian Knight, and from conference participants. We are also grateful for comments received at the International Business Communication Conference 2017 and the British Accounting & Finance Association Annual Conference 2018; at seminars at the University of Essex, the National University of Ireland Galway, University College Dublin, the University of Padua, the University of Gothenburg, and the University of Warwick; and from Danial Hemmings. Finally, we especially thank the editors and an anonymous reviewer for their detailed comments and suggestions.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. We focus on financial stakeholders, as this paper was commissioned for the Institute of Chartered Accountants in England and Wales (ICAEW) Information for Better Markets conference, 2017. By financial stakeholders we mean shareholders, debtholders and information intermediaries, such as financial analysts and the financial press.
2. A genre comprises a class of texts sharing a set of communicative purposes, which are recognised by the expert members of a specific discourse community (Rutherford 2005). For example, earnings press releases or profit warnings are genres, which are recognised by the expert community of capital market participants as having a set of specific purposes.
3. All behaviour, including silence, generates meanings and thus constitutes communication (Merkl-Davies and Brennan 2017). Audiences assign meanings to silence, if they expect organisations to communicate on an issue or event. In their study of conference calls, Hollander et al. (2010) suggest that 'silence speaks'.
4. The issue of power and corporate reporting is complex. Mezias (1990) refers to financial reporting being at the centre of an ideological struggle between various constituencies. At times investors will have more power (e.g. when firms need capital), while at other times, firms may have power (e.g. when they are required to remit profits back to investors). Power imbalances may exist between different constituencies of investors. Steinberg (2005) describes the US Fair Disclosure legislation as an attempt by the SEC to restructure the balance of power amongst investors. It is beyond the scope of this paper to address power in more detail.
5. The IASB's concept of relevance features twice in connectivity: in relation to communication being relevant (i) to the audience (acceptability) and (ii) to the specific communicative situations (situationality).
6. We thank the reviewer for this observation.
7. Stolowy and Paugam's (2018) analysis of annual reports, CSR reports, and IRs published in this issue is based on a sample drawn from the companies in the EY (2017) survey.
8. Immediacy, concurrency, language variety, multiple cues, personal source, multiple addressability, externally recordable, and computer-processable memory.
9. Tapscott and Williams (2011) observe that digital reporting platforms and social media will pave the way for more interactive and conversational approaches to corporate communication, where data and knowledge flow both ways.
10. For example, connectivity is likely to be important to the communication of externalities (i.e. the impact of firm operations externally), which is the subject of Unerman et al.'s (2018) paper in this issue.
11. In the US, shareholder activists are increasingly targeting larger firms and also firms with good financial performance. What is more, they are more successful in that they secured at least one board seat in roughly 73% of all proxy fights in 2015, compared to 63% in 2014 (White 2015). In Europe, there were 342 activism campaigns in 2016, compared to 70 in 2010 (FTI Consulting 2016).

References

Accounting Standards Board (ASB), 2000. *Year-End Financial Reports: Improving Communication*. London: ASB.

Argenti, P.A., 1996. Corporate communication as a discipline: toward a definition. *Management Communication Quarterly*, 10 (1), 73–97.

Asay, H.S., Elliott, W.B., and Rennekamp, K., 2016. Disclosure readability and the sensitivity of investors' valuation judgments to outside information. *Accounting Review*, 92 (4), 1–25.

Baue, B. and Murninghan, M., 2011a. The accountability web: weaving corporate accountability and interactive technology. *Journal of Corporate Citizenship*, 41 (Spring), 27–49.

Baue, B. and Murninghan, M., 2011b. The accountability web: part 2: weaving corporate accountability and interactive technology. *Journal of Corporate Citizenship*, 43 (Autumn), 7–44.

Beattie, V., 2014. Accounting narratives and the narrative turn in accounting research: issues, theory, methodology, methods and a research framework. *British Accounting Review*, 46 (2), 111–134.

Bedford, N.M. and Baladouni, V., 1962. A communication theory approach to accountancy. *Accounting Review*, 37 (4), 650–659.

Bellucci, M. and Manetti, G., 2017. Facebook as a tool for supporting dialogic accounting? Evidence from large philanthropic foundations in the United States. *Accounting, Auditing & Accountability Journal*, 30 (4), 874–905.

Blazevic, V., Wiertz, C., Cotte, J., de Ruyter, K., and Keeling, D.I., 2014. GOSIP in cyberspace: conceptualization and scale development for general online social interaction propensity. *Journal of Interactive Marketing*, 28 (2), 87–100.

Bloomfield, R., 2008. Discussion of 'annual report readability, current earnings, and earnings persistence'. *Journal of Accounting and Economics*, 45 (2), 248–252.

Bonsall, S.B., Leone, A.J., Miller, B.P., and Rennekamp, K., 2017. A plain English measure of financial reporting readability. *Journal of Accounting and Economics*, 63 (2), 329–357.

Bonsón, E. and Flores, F., 2011. Social media and corporate dialogue: the response of global financial institutions. *Online Information Review*, 35 (1), 34–49.

Cade, N.L., Forthcoming. Corporate social media: how two-way disclosure channels influence investors. *Accounting, Organizations and Society.*

Carey, J.W., 2009. *Communication as Culture (Revised Edition): Essays on Media and Society*. New York: Routledge.

Chambers, R., 1966/2006. *Accounting, Evaluation and Economic Behaviour*. Englewood Cliffs, NJ: Prentice Hall (original) / Sydney: Sydney University Press.

Cooper, C., 2013. A critical perspective. In: L. Jack, J. Davison, and R. Craig, eds. *The Routledge Companion to Accounting Communication*. Abingdon, Oxon: Routledge, 242–253.

Cornelissen, J., 2014. *Corporate Communication: A Guide to Theory and Practice*. 4th ed. Thousand Oaks, CA: Sage.

Davison, J. and Skerratt, L., 2007. *Words, Pictures and Intangibles in the Corporate Report*. Edinburgh: Institute of Chartered Accountants of Scotland.

de Beaugrande, R.A. and Dressler, W.U., 1981. *Introduction to Text Linguistics*. London: Longman.

Debreceny, R.S., 2015. Social media, social networks, and accounting. *Journal of Information Systems*, 29 (2), 1–4.

DellaVigna, S. and Gentzkow, M., 2010. Persuasion: empirical evidence. *Annual Review of Economics*, 2, 643–669.

Du, H. and Jiang, W., 2015. Do social media matter? Initial empirical evidence. *Journal of Information Systems*, 29 (2), 51–70.

EY, 2017. *EY's Excellence in Integrated Reporting Awards 2016*. Cape Town, South Africa: EY. Available from: http://www.ey.com/Publication/vwLUAssets/ey-excellence-integrated-reporting-awards-2016/$FILE/ey-excellence-integrated-reporting-awards-2016.pdf [Accessed 21 December 2017].

Federation of European Accountants (FEE), 2015. *The Future of Corporate Reporting – Creating the Dynamics for Change*. Brussels: FEE.

Financial Reporting Council (FRC), 2015. *Clear & Concise: Developments in Narrative Reporting*. London: FRC.

Firtel, K.B., 1999. Plain English: a reappraisal of the intended audience of disclosure under the Securities Act of 1933. *Southern California Law Review*, 72 (2–3), 851–897.

Fortner, R., 1994. Mediated communication theory. In: F.L. Casmir, ed. *Building Communication Theories: A Socio/Cultural Approach*. Hillsdale, NJ: Lawrence Erlbaum, 209–240.

FTI Consulting, 2016. Global Activism on the Rise. Available from: http://fticommunications.com/2016/10/global-activism-rise/ [Accessed 5 May 2018].

Geerings, J., Bollen, L.H., and Hassink, H.F.D., 2003. Investor relations on the internet: a survey of the Euronext zone. *European Accounting Review*, 12 (3), 567–579.

Glover, J.C., 2012. Disclosure and incentives. *Accounting Horizons*, 26 (2), 371–380.

Gomez-Carrasco, P., Guillamón-Saorín, E., and García Osma, B., 2017. Stakeholder (dis)engagement in social media: the case of Twitter and the banking industry. Working Paper, Universidad Autonoma de Madrid.

Grunig, J.E., 2009. Paradigms of global public relations in an age of digitisation. *PRism*, 6 (2), 1–19.

Grunig, J.E. and Hunt, T., 1984. *Managing Public Relations*. Fort Worth, TX: Harcourt Brace Jovanovich College Publishers.

Hanks, W.F., 1989. Text and textuality. *Annual Review of Anthropology*, 18, 95–127.

Hollander, S., Pronk, M., and Roelofsen, E., 2010. Does silence speak? An empirical analysis of disclosure choices during conference calls. *Journal of Accounting Research*, 48 (3), 531–563.

Houghton, J.P., Siegel, M., Madnick, S., Tounaka, N., Nakamura, K., Sugiyama, T., Nakagawa, D., and Shirnen, B., Forthcoming. Beyond keywords: tracking the evolution of conversational clusters in social media. *Sociological Methods & Research*.

Institute of Chartered Accountants in England and Wales (ICAEW), 2016. *Audit Insights: Corporate Reporting. Improving Annual Reports of Listed Companies*. London: ICAEW.

International Accounting Standards Board (IASB), 2010. *The Conceptual Framework for Financial Reporting 2010*. London: IASB.

International Accounting Standards Board (IASB), 2017a. *Wider Corporate Reporting. Options for the Board's Work Plan*. London: IASB.

International Accounting Standards Board (IASB), 2017b. *Discussion Paper DP/2017/1: Disclosure Initiative – Principles of Disclosure*. London: IASB.

International Integrated Reporting Council (IIRC), 2013a. *The International <IR> Framework*. Available from: https://integratedreporting.org/wp-content/uploads/2013/12/13-12-08-THE-INTERNATIONAL-IR-FRAMEWORK-2-1.pdf [Accessed 8 November 2017].

International Integrated Reporting Council (IIRC), 2013b. *Connectivity: Background Paper for <IR>*. Available from: http://integratedreporting.org/wp-content/uploads/2013/07/IR-Background-Paper-Connectivity.pdf [Accessed 8 November 2017].

Isenmann, R., 2011. Corporate sustainability reporting: how to benefit from ICT for communicating à la carte. In: M.A. Quaddus and M.A.B. Siddique, eds. *Handbook of Corporate Sustainability: Frameworks, Strategies and Tools*. Cheltenham, UK: Edward Elgar Publishing, 207–248.

Isenmann, R., Bey, C., and Welter, M., 2007. Online reporting for sustainability issues. *Business Strategy and the Environment*, 16 (7), 487–501.

Isenmann, R. and Kim, K.-C., 2006. Interactive sustainability reporting. Developing clear target group tailoring and stimulating stakeholder dialogue. In: S. Schaltegger, M. Bennett, and R. Burritt, eds. *Sustainability Accounting and Reporting Sustainability Accounting and Reporting*. Dordrecht: Springer, 533–555.

Jewitt, C., Xambo, A., and Price, S., 2017. Exploring methodological innovation in the social sciences: the body in digital environments and the arts. *International Journal of Social Research Methodology*, 20 (1), 105–120.

Jung, M.J., Naughton, J.P., Tahoun, A., and Wang, C., Forthcoming. Do firms strategically disseminate? Evidence from corporate use of social media. *Accounting Review*.

Kent, M.L., Taylor, M., and White, W.J., 2003. The relationship between web site design and organizational responsiveness to stakeholders. *Public Relations Review*, 29 (1), 63–77.

Kirk, M.P. and Markov, S., 2016. Come on over: analyst/investor days as a disclosure medium. *Accounting Review*, 91 (6), 1725–1750.

Koehler, K., 2014. Dialogue and relationship building in online financial communications. *International Journal of Strategic Communication*, 8 (3), 177–195.

KPMG, 2013. *The Future of Corporate Reporting. Towards a Common Vision*. KPMG International.

Lavoie, D., 1987. The accounting of interpretations and the interpretation of accounts: the communicative function of 'the language of business'. *Accounting, Organizations and Society*, 12 (6), 579–604.

Lee, T.A., 1982. Chambers and accounting communication. *Abacus*, 18 (2), 152–165.

Lee, L.F., Hutton, A.P., and Shu, S., 2015. The role of social media in the capital market: evidence from consumer product recalls. *Journal of Accounting Research*, 53 (2), 367–404.

Lev, B., 2018. The deteriorating usefulness of financial report information and how to reverse it. *Accounting and Business Research*, 48 (5), 465–493.

Levitt, A., 1997. Fulfilling the promise of disclosure. Remarks by Arthur Levitt, Chairman, U.S. Securities and Exchange Commission, American Savings Education Council, New York, 23 July 1997. Available from: https://www.sec.gov/news/speech/speecharchive/1997/spch171.txt [Accessed 15 June 2017].

Littlejohn, S.W. and Foss, K.A., 2011. *Theories of Human Communication*, 10th ed. Long Grove, IL: Waveland Press.
Lodhia, S. and Stone, G., 2017. Integrated reporting in an internet and social media communication environment: conceptual insights. *Australian Accounting Review*, 27 (1), 17–33.
Loughran, T. and McDonald, B., 2016. Textual analysis in accounting and finance: a survey. *Journal of Accounting Research*, 54 (4), 1187–1230.
Manetti, G., Bellucci, M., and Bagnoli, L., 2017. Stakeholder engagement and public information through social media: a study of Canadian and American public transportation agencies. *American Review of Public Administration*, 47 (8), 991–1009.
Merkl-Davies, D.M. and Brennan, N.M., 2017. A theoretical framework of external accounting communication: research perspectives, traditions and theories. *Accounting, Auditing & Accountability Journal*, 30 (2), 433–469.
Mezias, S.J., 1990. An institutional model of organizational practice: financial reporting at the Fortune 200. *Administrative Science Quarterly*, 35 (3), 431–457.
Mock, T.J., Bédard, J., Coram, P.J., Davis, S.M., Espahbodi, R., and Warne, R.C., 2012. The audit reporting model: current research synthesis and implications. *Auditing: A Journal of Practice & Theory*, 32 (Supplement 1), 323–351.
Morgan, J., 2015. How important is connectivity to you? *Forbes*. Available from: https://www.forbes.com/sites/jacobmorgan/2015/11/06/how-important-connectivity-you/#7c0ae6cc66cd [Accessed 11 December 2017].
Neubert, A. and Shreve, G.M., 1992. *Translation as Text* (No. 1). Kent, OH: Kent State University Press.
Rivera-Arrubla, Y.A. and Zorio-Grima, A., 2016. Integrated reporting, connectivity, and social media. *Psychology & Marketing*, 33 (12), 1159–1165.
Rivera-Arrubla, Y.A., Zorio-Grima, A., and García-Benau, M.A., 2017. Integrated reports: disclosure level and explanatory factors. *Social Responsibility Journal*, 13 (1), 155–176.
Romenti, S., Valentini, C., Murtarelli, G., and Meggiorin, K., 2016. Measuring online dialogic conversations' quality: a scale development. *Journal of Communication Management*, 20 (4), 328–346.
Rutherford, B.A., 2005. Genre analysis of corporate annual report narratives: a corpus linguistics based approach. *Journal of Business Communication*, 42 (4), 349–378.
Saleh, A. and Roberts, C., 2017. The impact of online corporate reporting quality on analyst following and properties of their EPS forecasts. *Journal of Accounting and Management Information Systems*, 16 (1), 59–88.
Schwartz, A.A., 2015. The digital shareholder. *Minnesota Law Review*, 100 (2), 609–685.
Securities and Exchange Commission (SEC), 1998. *A Plain English Handbook: How to Create Clear SEC Disclosure Documents*. New York: Securities and Exchange Commission.
Shannon, C.E. and Weaver, W., 1949. *The Mathematical Theory of Communication*. Urbana-Champaign: University of Illinois Press.
Shiller, R.J., 2017. Narrative economics. *American Economic Review*, 107 (4), 967–1004.
Sprenger, T.O., Sandner, P.G., Tumasjan, A., and Welpe, I.M., 2014a. News or noise? Using twitter to identify and understand company-specific news flow. *Journal of Business Finance & Accounting*, 41 (7–8), 791–830.
Sprenger, T.O., Tumasjan, A., Sandner, P.G., and Welpe, I.M., 2014b. Tweets and trades: the information content of stock microblogs. *European Financial Management*, 20 (5), 926–957.
Steinberg, M.I., 2005. *Securities Regulation: Liabilities and Remedies*. New York: Law Journal Press.
Stolowy, H. and Paugam, L., 2018. The expansion of non-financial reporting: an exploratory study. *Accounting and Business Research*, 48 (5), 525–548.
Tan, H.T., Wang, E.Y., and Zhou, B., 2014. How does readability influence investors' judgments? Consistency of benchmark performance matters. *Accounting Review*, 90 (1), 371–393.
Tapscott, D. and Williams, A.D., 2011. The age of transparency. *Financial Executive*, 27 (4), 34–41.
Unerman, J., Bebbington, J., and O'Dwyer, B., 2018. Corporate reporting and accounting for externalities. *Accounting and Business Research*, 48 (5), 497–522.
Van Riel, C.B.M., 1995. *Principles of Corporate Communication*. Hemel Hempstead, UK: Prentice Hall.
van Wissen, N. and Wonneberger, A., 2017. Building stakeholder relations online: how nonprofit organizations use dialogic and relational maintenance strategies on Facebook. *Communication Management Review*, 2 (01), 54–74.
Venturelli, A., Cosma, S., and Leopizzi, R., Forthcoming. Stakeholder engagement: an evaluation of European banks. *Corporate Social Responsibility and Environmental Management*.

Venturelli, A., Leopizzi, R., and Caputo, F., 2016. The role of Web 2.0 in the evaluation of stakeholder engagement. Working Paper. Available from: https://www.researchgate.net/profile/Andrea_Venturelli2/publication/305044109_The_Role_of_Web_20_in_the_Evaluation_of_Stakeholder_Engagement/links/577fcb5508ae01f736e495da.pdf [Accessed March 2018].

White, M.J., 2015. A few observations on shareholders in 2015. Speech at the Tulane University Law School 27th Annual Corporate Law Institute, New Orleans, Louisiana. Available from: https://www.sec.gov/news/speech/observations-on-shareholders-2015.html [Accessed 5 May 2018].

Yang, J.H. and Liu, S., 2017. Accounting narratives and impression management on social media. *Accounting and Business Research*, 47 (6), 673–694.

Yang, S.U. and Kang, M., 2009. Measuring blog engagement: testing a four-dimensional scale. *Public Relations Review*, 35 (3), 323–324.

Yang, S.U., Kang, M., and Cha, H., 2015. A study on dialogic communication, trust, and distrust: testing a scale for measuring organisation-public dialogic communication (OPDC). *Journal of Public Relations Research*, 27 (2), 175–192.

Zhou, M., Lei, L., Wang, J., Fan, W., and Wang, A.G., 2015. Social media adoption and corporate disclosure. *Journal of Information Systems*, 29 (2), 23–50.