

ELECTRONIC ETHICAL LEADERSHIP: A PRELIMINARY RESEARCH FRAMEWORK

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Abstract

Business failures are often overshadowed by unethical communications in leadership. Hence ethical leadership, referring to appropriate conduct through personal actions and interpersonal relationships through communication, is an important research topic. Business communication increasingly migrates to the use of technologies today; however, there lacks research addressing how technology impacts ethical leadership, or electronic ethical leadership. Without such an understanding, we are left with the risks involved with using technology for leadership communication when unethical transgressions have seriously impacted technology-using businesses. This preliminary study remedies this gap by examining the relevant factors governing the development of ethical leadership, and investigates related characteristics of technology that will interact with such a process. Results provides a framework that will help future scholarly efforts in electronic ethical leadership.

Keywords: *ethics, moral, leadership, ethical leadership, electronic ethical leadership, e-leadership, computer-mediated communication, virtual teams, virtual organization*

INTRODUCTION

Ethical leadership is important, as pitfalls in businesses are foreshadowed by unethical leadership. Ethical leadership is defined as “normatively appropriate conduct through personal actions and interpersonal relationships,” and in particular, regarding such conduct to followers through communication (Brown and Trevino, 2006). For example, in prior cases it was found that the leadership of a failed energy business communicated to employees to destroy documents to evade an investigator’s examination(Seeger and Ulmer, 2003). Additionally, an automotive business suffered from an unprecedented mass product recall which later triggered a congressional hearing, where its management was found to have “silenced” its employees who found its product defective and felt morally responsible(Higgins and Summers, 2014).

More recently, a Volkswagen emission event was unearthed by the Environmental Protection Agency. Volkswagen's diesel cars sold in the U.S. were found to be equipped with a device that would send a signal to the car when it was tested for performance; it would change accordingly to improve its results by reducing emissions (Henning, 2015). This device turned off during regular driving, and the emissions increased above the U.S. legal limits. Volkswagen launched an internal investigation, and the executive in charge resigned (Hotten, 2015). While Volkswagen of America's CEO Michael Horn acknowledged the wrongdoing, the consequences came in several folds, including the loss of trust, the potential risks from lawsuits, and the decline in sales and stock shares. Worse, the key shareholders pulled out because they did not want to be associated with the executive, and the corporate reputation was tarnished. Volkswagen has also suspended its top quality control executive as of October 2015, whose brought in "a demoralizing effect" that the event has had and will have to the company in the future (Ewing, 2015). As the press continued to unveil the scandal gradually, Volkswagen's morale is further dampened, which finally resulted in the resignation of U.S. chief Michael Horn.

With ethical events occurring in corporate worlds setting up the background for this research, information and technology are relevant and important, such information as power source, and technology as an enabler.

Information as Power Source. Leaders are in a position to employ the power in the organization to communicate with employees. Information, as a source of power in leaders' communication, is important for ethical leadership since ethical leadership can be achieved through information exchange using a transparent and caring approach, which in turn helps individuals emulate appropriate conducts. That is, if information demonstrated in leadership is important and is a related issue to explore (Brown, Trevino, and Harrison, 2005).

Technology as an Enabler. Meanwhile, technology may shape how leadership is carried out in organizations. While technology can be used to facilitate the decision process for a business, as the result of improved decisions, leaders will be in a better position to promote the beliefs and values that help deliver sustainable influences on employees, which is important for leadership. That is, technology serves as an enabler to empower leadership development in organizations. (Abraham, 2012).

With ethical leaderships' importance being recognized, specifically in this digital era, the fast development of technologies has enabled new opportunities for leadership to be developed and demonstrated through technology-mediated communications. While corporate communication has migrated to use technologies, unethical transgressions have impacted 20% of U.S. businesses using technology. Although the rate is on the rise, many organizations are still not cognizant of its severity (Kroll, 2013). For example, deception is found to be a widespread phenomenon on online technology (Caspi and Gorsky, 2006). Fraudulent behaviors have manifested on mobile communication platforms (Vahl 2013). Furthermore, immoral behaviors tend to occur more in computer-mediated communication (Xu, Cenfetelli and Aquino, 2012).

In particular, the need to consider ethical leadership in the context of technology is also echoed, since "technology may provide organizational leaders with rather tempting situations that could foster ethical misconducts...and there are many ethical considerations that need to be addressed" (Avolio, Sosik, Kahai and Baker, 2014, p.118, 126.). However, the way in which ethical leadership is impacted by technology is not well addressed by current research. Having such a gap will hamper effective business leadership, especially with the growing trend of technology used for business communications.

Hence, to fill the gap, this research is aimed at investigating *electronic* ethical leadership—that is, ethical leadership in an environment where leaders and followers communicate with each other using technology.

Research Question. In particular, this research attempts to answer the question of how ethical leadership is impacted by using technology. As a pilot study, this research plans to investigate theoretical underpinnings from related domains through comprehensive literature study, and develop factors that may impact how ethical leadership is perceived.

To further explore this topic, ethical leadership and e-leadership serve the foundation of further discussion since they are closely related.

ETHICAL LEADERSHIP

From incessant unethical events reported, a lesson business professionals have learned is that it is critical to promote ethical conducts in organizations. Based on this need, leaders are expected to provide ethical guidance to followers in organizations. Leaders influence their followers to conduct ethically by

modeling: followers learn what ethical standards are in place and expected before they can engage themselves in developing ethical behaviors under this influence(Brown et al., 2005).

In this study, we focus on perceived ethical leadership, since ethical leadership is demonstrated by how it is perceived by followers. Some factors or situations may serve as antecedents for perceived ethical leadership. For example, ethical leaders are described by followers as “honest and caring” individuals who make “fair and balanced decisions.”(Mayer, Aquino, Greenbaum and Kuenzi, 2012, p. 157)Furthermore, ethical leaders often communicate with followers regarding ethics, such as establishing ethical standards and employing punishments or rewards to encourage the implementation of ethics. Ethical leaders promulgate ethical conducts and practice what they advocate by assuming moral roles themselves.

Ethical Leadership

The following paragraphs elicit underlying theoretical backgrounds for ethical leadership. Ethical leaders’ capability to influence followers is explained by social learning theory (Bandura, 1986),where individuals learn by emulating models’ values, beliefs, attitudes, and behaviors. This is enabled by leaders’ credibility and attractiveness, which help draw followers’ attention. The status of a leader, which is often higher than that of a follower, further enhances this influence due to embedded authority and power(Brown and Trevino, 2006, p. 597).

Meanwhile, there is a need to investigate computer-mediated communication regarding ethical leadership. While the importance of communication is recognized for ethical leadership, where values and norms regarding ethical issues are shared in communication(Seeger and Ulmer, 2003), the medium on which communication is carried out is important. For example, Enron’s leadership directed subordinates to conduct fraudulent practices to hide wrongdoings, which ultimately led to the collapse of the organization. As the investigation unveiled, unethical leadership was present in internal electronic communication using e-mail and“...the medium was responsible for the actions of human users as they attempted to cope with [Enron’s] problems”(May, 2012, p. 93).

For this emerging new research topic, scholars have proposed to investigate situational and personal factors because they may impact perceived ethical leadership(Brown and Mitchell, 2010).Thus, to echo the need to better understanding about ethical leadership via technology-mediated communication, the purpose of this research is to investigate electronic ethical leadership. Also, with a growing variety of technology available to leadership communication, we hope to understand whether there is a difference for perceived ethical leadership when various technologies are used.

This research is structured in several components. First, we reviewed literature from related foundations as such e-leadership, technology, communication, and ethics from the domains of psychology, behavioral and organizational science, and information and communication systems. Second, following our reflections of theories based on relevant literature, we identified variables that may impact perceived ethical leadership. Relationships among variables are captured in our propositions, indicating potential for future research, and concluded with remarks for expected contributions.

LITERATURE REVIEW

In order to lay the foundation for examining electronic ethical leadership, first we review literature in relevant domains, including information ethics and electronic leadership. Then, we proceed to probe how ethics issues are currently academically explored in the information systems research field, for a better understanding of the basis needed to develop our study.

Information Systems Ethics

Information systems ethics has been recognized an important related domain, and related literature is organized and summarized in the following Table 1.

TABLE 1
Information Systems Ethics Literature Summary

Bell and Adam, 2004	The authors illustrate the importance of information systems ethics through the development of information systems research. Additionally, ethical theories and computer ethics are developed along with the delineation of the literature review.
Guragai, Hunt, Neri, and Taylor, 2015	The article explores the accounting information systems and related ethics issues, and classifies existing literature using a framework incorporating several environmental, technological, human, and organizational factors (ETHOs), which provides a model to investigate ethics in accounting information systems research.
Hilton, 2000	Through a survey from business employees, the study investigates the importance of information systems ethics through the abuse of computer use, there by presenting an assessment of information ethics.
Holzer and Junglas, 2013	The research argues that information systems can serve as tools to enhance ethical behaviors, and propose a research framework stipulating the relevant factors that enables stakeholders to address business ethics through the use of information systems.
Mason et al., 1995	The authors provide an overview regarding issues in ethics in information management, such as the relationship between information and ethics, fundamentals of ethics thinking and theory, and applications of information ethics in society.
Mingers and Walsham, 2010	The paper illustrates the importance of information systems ethics regarding discourse ethics, which is based on the debates between those affected by discussions. The discourse ethics are applicable to various information systems topics such as open source software, the digital divide, and Web 2.0.
Smith and Hasnas, 1999	Some theories are described regarding ethics and information systems, including stockholder theory, stakeholder theory, and the social contract theory.
Stahl, Eden, Jiroka, and Coeckelbergh, 2014	The research develops a perspective named “responsible research and innovation” (RRI), which can be applied to information and communication technology addressing some limitations of computer ethics. It helps to develop an more accommodating method for incorporating science, technology and innovation.

E-leadership

Technologies have been widely used by virtual teams for communication purposes. E-leadership refers to the way that leadership can be shaped or impacted in various ways when technology is used. Basically, e-leadership study encompasses topics where technology impacts social influences on individuals such as changes in attitude, feelings, thinking, behavior, or performance (Avolio, Kahai and Dodge, 2000, p.617), which is useful in group support decisions.

E-leadership studies have discussed the interactions between technology and leadership styles, such as transactional and transformational leadership. A leader leads transactionally when they identify what followers need or want, and help them obtain the desired level of performance. On the other hand, a transformational leader motivates followers by emphasizing visions that internally reward and encourage the follower to reach the goal (Bass, 1995). For example, in comparison with the transactional style, transformational leadership in a virtual team is related to quantitative performance decreases but to qualitative performance increases (Hoyt and Blascovich, 2003). Also, personality, emotions, and factors such as linguistic quality in communication are found to influence transformational leadership in virtual teams (Balthazard, Waldman and Warren, 2009).

It has been indicated that communication media have important effects on virtual teams, such as characteristics of interaction styles and cohesion (Hambley, O'Neill, and Kline, 2007). E-leadership is also explored in the context of trust, since a virtual team's trust would progress as a leader promotes the effectiveness of the team via technology-mediated communication (Zaccaro and Bader, 2003). Trust is also explored in its building process, such as swift trust (Greenberg, Greenberg, and Antonucci, 2007) and its relationship with teams of different performance levels (Kanawattanachai and Yoo, 2002).

However, very little literature in the computer-mediated communication domain is present exploring e-leadership in association with ethical issues. Hence, we develop this work in hope of further advancing computer-mediated communication research into a new domain of ethical leadership.

Ethical Issues in Information Systems Study

In comparison with abundant pieces of study available in other thriving domains of information systems, the work concentrating on ethical issues is limited. Generally, the perspectives used to embrace ethics appear to vary, rather than coming from a leadership perspective. For example, Gattiker and Kelley (1999) focus on how computer users felt about some computer-related behaviors that have an ethical connotation, and found that users of different ages and genders present different attitudes towards ethical issues in using information technology. Sandy, Hall and Bellucci (2007) on the other hand, reviewed public organizations for information-technology industrial professionals and ethical conduct issues for

their members. Their leadership to support ethical conducts is portrayed in several markers, such as preserving professionalism and regulating of the profession.

Meanwhile, computer-mediated communication was found to relate to ethical issues. Scholars have investigated group interactions using technology, and significant unethical behavior was found to increase after computer-mediated communication was used for a virtual team (Leonard and Haines, 2007). Also, Hancock, Thom-Santelli and Ritchie(2004) investigated dishonest behavior taking place in several modes of technology-mediated communication, such as phone, e-mail, instant messaging, and face-to-face. Results indicated that individuals are more likely to lie while on the phone, and less through e-mail. Meanwhile, as one of the important characteristics of communication via technology, anonymity makes it possible to separate online behavior from real-life identity, and thus may encourage ethical transgressions because it is difficult to discern responsibility. Hence, moral cognition process may be suspended for online behavior and results in a concern (Suler, 2004). Further, communication has been portrayed to interplay with ethics on a discourse-based, higher philosophy level (Mingers and Walsham, 2010).

Theoretical Backgrounds

Ethical leadership is derived from social learning theory (Bandura, 1977) which refers to individuals learning appropriate behaviors through the observation of other individual's behaviors via a role-modeling process. That is, individuals can "learn what to do and how to behave by observing and emulating a role model." (Brown and Treviño, 2014 p. 588). In particular, the leader can harness ethical values in role modeling, rewards and punishment through the communication (Mayer et al., 2012).

Additionally, moral foundation theory helps set up the foundation of ethical leadership (Fehr, Yam and Dang, 2015). Moral foundation theory refers to the process through which individuals can observe a leader's actions that are related to ethics. This process is named moralization, in which the follower can moralize a leader's behavior via communication as either positive or negative. Positive moralization refers to the perceived leadership as correct, while the negative moralization refers to the perceived leadership as incorrect.

Additionally, social learning theory addresses the importance of communication among individuals (Bandura, 1977): individual's behavior and learning must be "explained in terms of a continuous reciprocal interaction of personal environmental determinants... virtually all learning phenomena resulting from direct experience occurs on a vicarious basis by observing other people's behavior and its consequences for them in the communication" (pp. 194).

While individuals' characteristics operate along with environmental factors in such a communication environment, technology is considered as important factor, such as computer-mediated communications (Tu, 2000). However, little research has tackled the factors in perceived ethical leadership that is mediated by using information and communication technologies. While it is recognized that electronic ethical leadership deserves more attention in the domain of information systems research, we hope to bridge this gap with our study.

PROPOSITIONS

Based on emerging literature in psychology, behavioral science, and information systems domains, we develop the propositions in the following paragraphs:

Social Distance

Social distance has been proposed to be considered as a factor to influence ethical leadership in leader-follower interactions (Brown and Mitchell 2010). Social distance is defined as the "differences in status, rank, authority, social standing and power, which affect the degree of social intimacy and social contact that develops between followers and their leaders. (Antonakis and Atwater, 2002, p 282)." In specific, it is argued that social distance will impact the evaluation of ethical leadership in the exchange of the leader and follower (Tumasjan, Strobel and Welpe, 2011). Social distance moderates the degree to which leaders are perceived as ethical leaders. It is found that a follower in a higher social distance (that is, farther) condition would judge a leader more harshly with a lower (less-ethical) rating, while a follower in a lower social distance (that is, closer) condition would evaluate a leader with a higher (more-ethical) rating.

Additionally, according to moral foundation theory, the morality of altruistic behavior is important to understand the process of moralization (Graham, Haidt, Koleva, Motyl, Iyer, et al., 2012). Further, Bicchieri and Lev-On (2007) investigated how online members establish a pro-social norm and take on cooperative behaviors in order to delineate the formation of morality. It is found that due to a larger social distance presented by using technology, it is more difficult to engage in altruistic conducts for ethical leadership. Hence, we propose:

Proposition 1: Social distance will be negatively associated with perceived ethical leadership.

Also, an ethical transgression event is often approached in a causal format: cause (the unethical event itself) and consequence (such as the reflection of who is held responsible for a transgression). We can follow this format to consider the cause and consequence of an unethical event, in particular regarding who is responsible to what degree. Based on construal level theory, scholars have found that the

more distant an event is portrayed, the more likely individuals will weigh more on cause rather than consequence factors (Trope and Liberman, 2010). These factors may include the connection between a behavior and an outcome, whether the individual in regard would like the event to happen and whether or not the at-stake individual can foresee the occurrence of the event. That is, “why” (source of transgression) tends to be focused on when the distance is close, while “what” (result of a transgression) will receive more attention when the distance is far (Rim, Hansen and Trope, 2012).

As aforementioned, the perceptions of social distance may vary depending on the technology used for communication. While the event is felt “distant” due to the use of certain technology, the follower may attribute more to the cause (the occurrence of the event) than the effect (the individual responsible for the event); therefore, distance impacts perceived ethical leadership. Hence, we propose:

Proposition 2: Technology enabling different social distances will moderate the relationship with perceived ethical leadership.

Social Presence

Social presence is associated with perceived morality which is important for ethical leadership (Pavlou, Huigang and Yajiong, 2007). Social presence is defined as the awareness of the other party in the social interactions. According to social learning theory, social presence affects social learning since learning is enabled through continuous interactions in communication (Tu, 2000). That is, social presence is important for ethical leadership since ethical leadership is enabled by an individual’s learning and role-modeling through interactions.

Social presence is related to both verbal and nonverbal communication (Walther, 1992) such as perceived availability of the communicators. In particular, technologies have been found varying in their capacity allowing communicators to perceive social presence. For example, in comparing the use of video versus audio technology for conferencing, it has been found that video conferencing was associated with a higher level of social presence and the extent to which each group member regarded interactions with others (Yoo and Alavi, 2001). As technology’s carrying capability in verbal and nonverbal cues may vary, it is found that communicators will perceive various presences (Walther, 2012). Hayashi, Chen, Ryan and Wu (2004) assert that social presence is important for the modeling behaviors among individuals and found that with a higher social presence using technology, the learner will present better modeling and emulate other’s behavior in the learning process. Based on this, we propose that:

Proposition 3: Social presence will be positively associated with perceived ethical leadership.

Proneness to Guilt or Shame

Given the context of moralization in moral foundation theory, moralization can encourage individuals to respond to what is perceived as correct. However, individuals may feel negative emotions when perceived moralization does not align with correctness, such as the feeling of shame or guilt (Cohen, Wolf, Panter and Insko, 2011). That is, while social norms are regarded as right, departures from norms can trigger emotions of shame or guilt (Avey, Wernsing and Palanski, 2012), embracing guilt or shame as relevant factors to be considered for studying unethical leadership (Brown and Mitchell, 2010).

Recent studies have shown that how an individual feels and acts is important when encountering a moral transgression—as captured by two affects, guilt proneness and shame proneness. Guilt proneness emerges as a determinant—it refers to the tendency to feel negative about a transgression and then follows with an action to address the issue, such as repairing the problem. That is, for the public welfare or community needs, a guilt-prone individual is more likely to assume a responsibility when an ethical situation is identified. On the other hand, shame-proneness refers to individuals' tendency to feel negative about themselves for the mistake, but refraining from taking any actions (Schaumberg and Flynn, 2012).

It is argued that guilt-prone individuals focus more on how or whether the actions are taken (on mistake or wrongdoing), while shame-prone individuals dwell more on themselves, but not on the problems (since no action or response is taken for the transgression). As a result, when a moral transgression (such as a wrong doing or a mistake) happens, individuals who are prone to feel guilt are more likely to proactively place leadership evaluations towards others than the ones who are prone to feel ashamed about the transgression. Also, it was found that guilt-proneness promotes conformity to ethical norms that dictate concern for others (Pinter, Insko, Wildschut, Kirchner, Montoya and Wolf, 2007) which is a characteristic an ethical leader possesses. Accordingly, it is plausible that a guilt-prone follower is more likely to perceive the prominence of ethical leadership. So, for a follower:

Proposition 4: Guilt proneness has a stronger effect on the perceived ethical leadership than shame proneness.

Proposition 5: Technology will moderate more the relationship between guilt proneness and perceived ethical leadership than to shame proneness.

Technology Characteristics

Regarding the theory employed for probing computer-mediated communication, media richness theory has been widely used (Daft and Lengel, 1986) and shed insights to be employed in investigating leadership through technology. Media richness is used in various leadership topics such as leadership change (Fischer

and Heracleous, 2012) leadership style and cohesion (Huang, Kahai, and Jestice, 2010) and leadership style and satisfaction (Purvanova and Bono, 2009). While various technologies are available for the communication between a leader and a follower, in this work we plan to focus on technologies broadly categorized as voice-based and text-based. Voice-based technology features a mode of communication involving the use of audio sense, such as a cell phone. On the other hand, a text-based mode of communication allows users to type texts to communicate, such instant messaging, short messages, or micro blogs (e.g., Twitter). Since face-to-face communication enables the full transmission of both verbal (words and sentences) and nonverbal cues (e.g., voice tone, pitch, gesture or facial expression), it is considered the “richest” media for communication. According to media richness theory, Voice-based technology, which is “leaner” than face-to-face, can still deliver some non-verbal cues, and is considered “richer” than text technology. Text technology does not fully transmit non-verbal cues and thus is considered “leaner” than voice technology in its capability to deliver information.

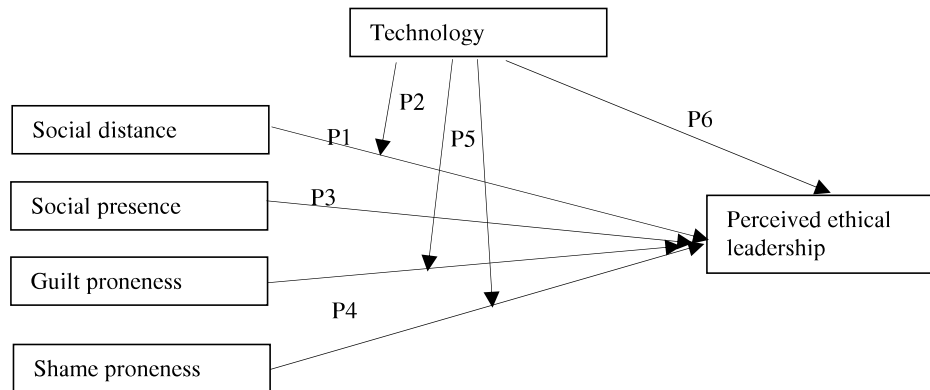
Some other characteristics of computer-mediated communication, such as synchronicity and anonymity, are also recommended as factors to consider in ethical decision making (Avolio, Walumbwa and Weber, 2009). For instance, Dorantes, Hewitt, and Goles (2006) studied how perceived ethical issues impact the ethical decision-making process. They found that due to the asynchronous and anonymous nature of technology, communicators are prone to de-individualization, a sense of losing the sense of individuality and responsibility. Hence, moral intensity is impacted, showing a difference across various personal traits such as age and gender. Also, technology plays a differentiating role on the receiver’s perception of false information involved in the communication. In technology-mediated communication, the receiver is more likely to react negatively when using the technology with more cue multiplicity than when using the technology with less cue multiplicity (Xuet al., 2012).

As the technologies used in this study pose different aforementioned characteristics that may impact the communication between leaders and followers, we propose:

Proposition 6: The perceptions of ethical leadership will present differences across different technologies used for communication.

The model of the research is presented in Figure 1.

FIGURE 1
Research Model



MEASURES

A field study may be followed by surveying corporate employees where communication technologies are used for work. Social distance can be measured by items embracing mutual attention and support, connectedness, and sense of community (Kim, 2011). Social presence can be measured by items of expression, communication and cohesion (Swan, Shea, Richardson, Ice, Garrison, et al., 2008). Guilt and shame proneness can be measured by items of Cohen et al. (2011). Ethical leadership can be measured by respondent rate their manger's ethical leadership following Brown and Treviño (2014).

CONCLUSIONS AND IMPLICATIONS

While ethical leadership often takes place in virtual communications in today's technology-driven business communities, the extension of ethical leadership to communication and to the use of technology for communication is an area not yet fully explored by academia. Hence, with this need to investigate ethical leadership in these new dimensions, the paper demonstrates the efforts to understand ethical leadership in technology-mediated environments, which is a newly emerging topic faced by business academia and practice.

In particular, we unveiled factors that may associate with perceived ethical leadership, through an extensive review of literature in both the behavioral science and information and technology systems realms relating to leadership and ethics. Social learning theory is identified and examined to set forth a framework where communications and factors of technologies are analyzed and delineated. Propositions are developed to highlight particular aspects where ethical

leadership may be considered in conjunction with communication technology used in today's business arenas.

As initially noted, this research, as a preliminary investigation, echoes the call to explore ethical factors in the context of electronic environments (Avolio et al., 2014). Here, we would also like to discuss some implications for future research. For example, it still remains unclear how ethical leadership is developed with regard to the underlying influence process (Brown and Trevino, 2006) and future research may investigate how ethical leadership is developed by this process when communication technologies are used. Additionally, with business leadership being increasingly demonstrated in global communities, some dimensions of ethical leadership in a global setting, such as character, altruism, collective motivation, and encouragement, are found to be globally endorsed (Resick, Hanges, Dickson and Mitchelson, 2006). The authors also found the degrees to which each dimension is supported appear to vary across various cultures. While global businesses may heavily rely on technologies to communicate with each other, future research may incorporate technologies to find out how technology may impact ethical leadership in different cultures.

With these implications, we anticipate that technology on ethical leadership can be further elucidated, and therefore can help businesses make decisions with regard to the use of technology. With this research, we are confident that we will make a contribution in building a foundation for future scholarly work regarding the interplay of ethical leadership, communication and technology.

REFERENCES

- Abraham, S.E. 2012. Information technology, an enabler in corporate governance. *Corporate Governance: The international journal of business in society* (12:3), 281-291.
- Antonakis, J. and Atwater, L. 2002. Leader distance: A review and a proposed theory. *Leadership Quarterly* (13:6), 673-704.
- Avey, J.B., Wernsing, T.S., and Palanski, M.E. 2012. Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics* (107:1), 21-34.
- Avolio, B.J., Kahai, S.S., and Dodge, G.E. 2000. E-leadership: Implications for theory, research, and practice. *The Leadership Quarterly* (11:4), 615-668.
- Avolio, B.J., Sosik, J.J., Kahai, S.S., and Baker, B. 2014. E-leadership: Re-examining transformations in leadership source and transmission. *The Leadership Quarterly* (25:1), 105-131.
- Avolio, B.J., Walumbwa, F., and Weber, T. 2009. Leadership: Current Theories, Research, and Future Directions. *Annual Review of Psychology* (60), 421-449.

- Balthazard, P.A., Waldman,D.A., and Warren,J.E. 2009. Predictors of the emergence of transformational leadership in virtual decision teams. *Leadership Quarterly*(20:5), 651-663.
- Bandura, A. 1977. *Social Learning Theory*, Prentice Hall, New Jersey.
- Bandura, A. 1986. *Social Foundations of Thought and Action: a social-cognitive theory*, Prentice-Hall, Englewood Cliffs, NJ.
- Bass, B.M. 1995. Does the transactional–transformational leadership paradigm transcend organizational and national boundaries? *American Psychologist*(52), 130-137.
- Bell, F. and Adam,A. 2004. Whatever Happened to Information Systems Ethics? In B. Kaplan, D.P. Truex III, D. Wastell, A.T. Wood-Harper, and J.I. DeGross (ed.), *Information Systems Research: Relevant Theory and Informed Practice*. Kluwer Academic Publishers, New York, NY, 159-174.
- Bicchieri, C. and Lev-On,A. 2007. Computer-mediated communication and cooperation in social dilemmas: an experimental analysis. *Politics, Philosophy & Economics*(6), 139 - 168.
- Brown, M., Trevino,L., and Harrison,D. 2005. Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*(97), 117-134.
- Brown, M.E. and Mitchell,M.S. 2010. Ethical and Unethical Leadership: Exploring New Avenues for Future Research. *Business Ethics Quarterly*(20:4), 583-616.
- Brown, M.E. and Trevino,L.K. 2006. Ethical leadership: A review and future directions. *The Leadership Quarterly*(17:6), 595-616.
- Brown, M.E. and Treviño,L.K. 2014. Do role models matter? An investigation of role modeling as an antecedent of perceived ethical leadership. *Journal of Business Ethics*(122:4), 587-598.
- Caspi, A. and Gorsky,P. 2006. Online Deception: Prevalence, Motivation, and Emotion. *CyberPsychology & Behavior*(9:1), 54-59.
- Cohen, T.R., Wolf, S.T., Panter,A.T., and Insko,C.A. 2011. Introducing the GASP scale: A new measure of guilt and shame proneness. *Journal of Personality and Social Psychology*(100:5), 947-966.
- Daft, R.L. and Lengel,R.H. 1986. Organizational Information Requirements, Media Richness and Structural Design. *Management Science*(32:5), 554-571.
- Dorantes, C.A., Hewitt,B., and Goles,T. 2006. *Ethical Decision-Making in an IT Context: The Roles of Personal Moral Philosophies and Moral Intensity* System Sciences, . HICSS '06. Proceedings of the 39th Annual Hawaii International Conference on, San Antonio, Texas.
- Ewing, J. 2015. Volkswagen Suspends 5th Executive in Emissions Scandal. *The New York Times*.(http://www.nytimes.com/2015/10/21/business/volkswagen-suspends-5th-executive-in-emissions-scandal.html?_r=0; accessed September 26, 2016)

- Fehr, R., Yam, K.C.S., and Dang, C. 2015. *Moralized Leadership: The Construction And Consequences Of Ethical Leader Perceptions*. *Academy of Management Review*(40:2), 182-209.
- Fischer, O. and Heracleous, L. 2012. A Counter Intuitive View of the Role of the Communication Medium in Leadership and Change. In W.A.P. Abraham B. (Rami) Shani, Richard W. Woodman (ed.), *Research in Organizational Change and Development* (20), Emerald Group Publishing Limited, Bradford, UK, pp.37-58.
- Gattiker, U.E. and Kelley, H. 1999. Morality and Computers: Attitudes and Differences in Moral Judgments. *Information Systems Research*(10:3), 233-254.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S.P., and Ditto, P.H. 2012. Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology*, (47:1), 55-130.
- Greenberg, P.S., Greenberg, R.H., and Antonucci, Y.L. 2007. Creating and sustaining trust in virtual teams. *Business Horizons*(50), 325-333.
- Guragai, B., Hunt, N., Neri, M., and Taylor, E.Z. 2015. Accounting Information Systems and Ethics Research: Review, Synthesis, and the Future. *Journal of Information Systems*. (in press)
- Hambley, L.A., O'Neill, T.A. and Kline, T.J.B. 2007. Virtual team leadership: The effects of leadership style and communication medium on team interaction styles and outcomes. *Organizational Behavior and Human Decision Processes*(103:1), 1-20.
- Hancock, J.T., Thom-Santelli, J., and Ritchie, T. 2004. *Deception and design: the impact of communication technology on lying behavior*. CHI '04: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (Vienna, Austria. April 24-29, 2004)
- Hayashi, A., Chen, C., Ryan, T., and Wu, J. 2004. The role of social presence and moderating role of computer self efficacy in predicting the continuance usage of e-learning systems. *Journal of Information Systems Education*(15:2), 139.
- Henning, P.J. 2015. The Challenges for Volkswagen's Internal Investigation. *The New York Times*. (http://www.nytimes.com/2015/11/17/business/dealbook/the-challenges-for-volkswagens-internal-investigation.html?_r=0; accessed September 26, 2016)
- Higgins, T. and Summers, N. 2014. Silence GM didn't just ignore whistle-blowers, it shut them up. *BusinessWeek*(June 23-29), 48-53.
- Hilton, T. 2000. Information Systems Ethics: A Practitioner Survey. *Journal of Business Ethics*(28:4), 279-284.
- Holzer, A. and Junglas, I. 2013. Toward justis--a research program aimed at fostering business ethics by empowering stakeholders through information systems. *Communications of the Association for Information Systems*(33:1), 24-39.

- Hotten, R. 2015. Volkswagen: The Scandal Explained. *BBC News*. (<http://www.bbc.com/news/business-34324772>; accessed September 26, 2016)
- Hoyt, C.L. and Blascovich, J. 2003. Transformational and Transactional Leadership in Virtual and Physical Environments. *Small Group Research*(34:6), 678-715.
- Huang, R., Kahai, S., and Jestice, R. 2010. The contingent effects of leadership on team collaboration in virtual teams. *Computers in Human Behavior*(26:5), 1098-1110.
- Kanawattanachai, P. and Yoo, Y. 2002. Dynamic nature of trust in virtual teams. *The Journal of Strategic Information Systems*(11:3-4), 187-213.
- Kim, J. 2011. Developing an instrument to measure social presence in distance higher education. *British Journal of Educational Technology*(42:5), 763-777.
- Kroll 2013. *Global Fraud Report*, Kroll Inc, New York, NY.
- Leonard, L.N.K. and Haines, R. 2007. Computer-mediated group influence on ethical behavior. *Computers in Human Behavior*(23:5), 2302-2320.
- Mason, R.O., Mason, F.M., and Culnan, M.J. 1995. *Ethics of Information Management*, Sage Publications, Inc., New York.
- May, S.K. 2012. *Case Studies in Organizational Communication: Ethical Perspectives and Practices*, SAGE, New York.
- Mayer, D.M., Aquino, K., Greenbaum, R.L., and Kuenzi, M. 2012. Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal*(55:1), 151-171.
- Mingers, J. and Walsham, G. 2010. Toward ethical information systems: the contribution of discourse ethics. *MIS Quarterly*(34:4), 833-854.
- Pavlou, P.A., Huigang, L., and Yajiong, X. 2007. Understanding and Mitigating Uncertainty in Online Exchange Relationships: A Principal-Agent Perspective. *MIS Quarterly*(31:1), 105-136.
- Pinter, B., Insko, C.A., Wildschut, T., Kirchner, J.L., Montoya, R.M., and Wolf, S.T. 2007. Reduction of interindividual-intergroup discontinuity: The role of leader accountability and proneness to guilt. *Journal of Personality and Social Psychology*(93:2), 250-265.
- Purvanova, R.K. and Bono, J.E. 2009. Transformational leadership in context: Face-to-face and virtual teams. *The Leadership Quarterly*(20:3), 343-357.
- Resick, C.J., Hanges, P.J., Dickson, M.W., and Mitchelson, J.K. 2006. A Cross-Cultural Examination of the Endorsement of Ethical Leadership. *Journal of Business Ethics*(63:4), 345-359.
- Rim, S., Hansen, J., and Trope, Y. 2012. What Happens Why? Psychological Distance and Focusing on Causes Versus Consequences of Events. *Journal of Personality and Social Psychology*,(104:3), 457-472
- Sandy, G.A., Hall, M.J.J., and Bellucci, E. 2007. *Indicative Markers of Leadership provided by ICT Professional Bodies in the Promotion and Support of*

- Ethical Conduct*. 18th Australasian Conference of Information Systems, Toowoomba, Australia. (December 2007)
- Schaumberg, R.L. and Flynn, F.J. 2012. Uneasy lies the head that wears the crown: The link between guilt proneness and leadership. *Journal of Personality and Social Psychology*(103:2), 327-342.
- Seeger, M.W. and Ulmer, R.R. 2003. Explaining Enron: Communication and Responsible Leadership. *Management Communication Quarterly*(17:1), 58-84.
- Smith, H.J. and Hasnas, J. 1999. Ethics and Information Systems: The Corporate Domain. *MIS Quarterly*(23:1), 109-127.
- Stahl, B.C., Eden, G., Jirotko, M., and Coeckelbergh, M. 2014. From computer ethics to responsible research and innovation in ICT: The transition of reference discourses informing ethics-related research in information systems. *Information & Management*(51:6), 810-818.
- Suler, J. 2004. The Online Disinhibition Effect. *CyberPsychology & Behavior*(7:3), 321-326.
- Swan, K., Shea, P., Richardson, J., Ice, P., Garrison, D.R., Cleveland-Innes, M., and Arbaugh, J.B. 2008. Validating a Measurement Tool of Presence in Online Communities of Inquiry. *E-Mentor*(2:24), 1-12.
- Trope, Y. and Liberman, N. 2010. Construal-level theory of psychological distance. *Psychological Review*(117:2), 440-463.
- Tu, C.-H. 2000. On-line learning migration: from social learning theory to social presence theory in a CMC environment. *Journal of Network and Computer Applications*(23:1), 27-37.
- Tumasjan, A., Strobelt, M., and Welpe, I. 2011. Ethical Leadership Evaluations After Moral Transgression: Social Distance Makes the Difference. *Journal of Business Ethics*(99:4), 609-622.
- Vahl, S. 2013. Phone companies plan to tackle 'courier fraud' phone trick. *BBC News*(<http://www.bbc.co.uk/news/business-24079493>; accessed November 11, 2013)
- Walther, J.B. 1992. Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication research*(19:1), 52-90.
- Walther, J.B. 2012. Interaction Through Technological Lenses: Computer-Mediated Communication and Language. *Journal of Language & Social Psychology*(31:4), 397-414.
- Xu, D.J., Cenfetelli, R.T., and Aquino, K. 2012. The Influence of Media Cue Multiplicity on Deceivers and Those Who Are Deceived. *Journal of Business Ethics*(106:3), 337-352.
- Yoo, Y. and Alavi, M. 2001. Media and group cohesion: Relative influences on social presence, task participation, and group consensus. *MIS Quarterly*(25:3), 371-390.
- Zaccaro, S.J. and Bader, P. 2003. E-leadership and the challenges of leading e-teams: Minimizing the bad and maximizing the good. *Organizational Dynamics*(31:4), 377-387.

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