STRENGTHENING WORKPLACE SECURITY THROUGH THE NEW MEDIA TECHNOLOGY IN AKWA IBOM STATE CIVIL SERVICE

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Abstract

The advent of new media technology in organisations has changed workplace settings thereby strengthening job delivery and organisational effectiveness. This paper examines strengthening workplace security through new media technology in the Akwa Ibom State Civil Service. To this end, the survey research method using the instrument of questionnaire was adopted to assess the existence of workplace security, the role played by new media in strengthening workplace security and the challenges experienced in workplace security through the use of new media technology in the Akwa Ibom State Civil Service. The results of the study indicated a low level of awareness of workplace security, a slow penetration of new media technology and several challenges to include the use of new media technology by only employees in the managerial cadre. It is recommended that a deliberate step be taken in enforcing workplace security while encouraging a full penetration of new media technology in the Akwa Ibom State Civil Service.

Keywords: New media, technology, workplace security, civil service, Akwa Ibom State

Introduction

The great wave of new media technological innovation is about social interaction. It reflects information and communication environments in which computer sensors (such as radio frequency identification tags, wearable technology, and smart watches) and other equipment (tablets, mobile devices) are unified with various objects, people, information, and computers as well as the physical environment. The combination of these developments is giving us a new kind of world, particularly in the workplace. A world which Wooldridge (2015, p. 29) describes as "one that is hyper connected and data saturated, a world where an Internet of everyone is linked to an Internet of everything." The New media technologies have revolutionised the way people communicate and interact socially within and outside of the workplace in relation to the Internet, with considerable impact on people's careers and lifestyles (Correa, Hinsley and De Zuniga 2010; Turban, Bolloju and Liang, 2011; Moqbel, Nevo and Kock, 2013; Holland, Cooper, and Hecker, 2016).

The new media allow people to communicate or collaborate online through various platforms, weblogs, blogs, wikis, broadcasts, pictures, and videos (Broughton Paay, Kjeldskov, O'Hara and Phillips, 2009). The new media have changed the ways of communication

by enabling two-way communication between users rather than one-way. It is estimated that 86% of workers have a social network profile ("Infographic," 2014). New media use by employees in the workplace is unquantifiable; the impact of this use is, however, uncertain. However, it is established in literature that new media use by employees can allow firms to harness social capital in a number of ways (Wamba and Carter, 2014). Previous study indicates that new media can help individuals acquire resources such as information and connections that can help productivity (Hanna, Rohm, and Crittenden, 2011). The impact of new media technologies, has frequently been described as having such parallel "dual effects" (Carlson, Harris, Zivnuska and Harris, 2016).

In the ever changing global workplace revolutionized through new media technology, there is an increasing concern about how to improve and strengthen workplace security using new media technologies. Workplace security basically means the process to protect an employee from work related illness and injury and generally to make the work place more secured from intruders and unqualified persons (Beus, McCord & Zohar, 2016). The 21st century organisation has witnessed tremendous transformation which has improved workplace settings. Employees feel safer around jobs that boost their productivity as well as assist in efficient and effective job delivery.

The speed and efficiency of carrying out a task in the contemporary workplace has greatly increased because of technology. Alter (2013) defines work as the application of human, information, and other resources to produce products and services. In today's workplace, people are relying more on technology to get work done within and between organisations. The issue of how technology is influencing and changing organisations is constantly becoming more interesting to scholars. If one accepts the premises that work does not exist without people and that researchers are inherently concerned with the study of people within organisational settings, then there is the need to have some understanding of the effects of technology on work and organisations. The Akwa Ibom Civil Service is a public service organisation that works towards achieving government goals and objectives. In the course of carrying out their daily responsibilities in the office, the civil servants are confronted with workplace security threats. There are studies which focused on new media use at work (Villanueva, Yoo & Hanssens, 2008; Van Zoonen, van der Meer, & Verhoeven, 2014a; Trainor, Andzulis, Rapp, & Agnihotri, 2014; Jiang, Luo, & Kulemeka, 2016; Parveen, Jaafar, & Ainin, 2016; Van Zoonen, Verhoeven, & Vliegenthart, 2017; Drummond, Mcgrath, & O'Toole, 2017), or on the intensity (Charoensukmongkol, 2014), or on the frequency (Bretschneider & Parker, 2016) of social media use. Some other studies examined new media use at work mainly on the relationship management (Tajudeen, Jaafar, & Ainin, 2018), information search and sharing (de Zubielqui, Fryges, & Jones, 2019), job satisfaction, and job performance (Parveen, Jaafar, & Ainin, 2015). But, there is paucity of studies on new media and workplace security at least in the Nigerian context. Therefore, our goal in this study is to examine the use of new media in the workplace and better understand the impact it has on workplace security (which we define as having safe working environment). We seek to examine how new media use in the workplace allows civil servants in Akwa Ibom State civil service to effectively secure their work environment.

Research Questions

The following research questions were stated to guide the study:

1. What is the nature of workplace security in the Akwa Ibom State Civil Service?
2. What role do new media technology play in strengthening workplace security in the Akwa Ibom State Civil Service?
3. Are employees in the Akwa Ibom State Civil Service conversant with the use of new media technology in strengthening workplace security?
4. In what ways can workplace security be strengthened through the use of new media technology in the Akwa Ibom State Civil Service

Conceptualising Workplace Security

Every business organisation has a duty to provide a safe work environment that protects employees, business operations, company property, and the security of customer and employees. Companies are taking steps to make their offices or workplaces more secured. Workplace security is

basically the process to protect an employee from work-related illness and injury and to make the workplace (environment) secure from intruder.

The effects of technology over the course of human history including the workplace security are well documented by (Casio & Montealegre 2016). This effect is a product of growth and advancement in civilisation. Growth and advancement can be divided into three eras according to their respective core technological infrastructures: the agricultural era, the industrial era, and the digital era. Each of these eras has been profoundly affected by the ability to acquire new information and knowledge. In the digital era, people are focusing on the generation and trading of products and services via digitalised data, information, and knowledge. It is an era based on infrastructure particularly information and communication technologies. The new infrastructure is not only helping people do things better and faster than in previous eras, but it is enabling new ways of control, coordination, and collaboration on activities more readily, at lower costs (Casio & Montealegre, 2016). As digital resources become accessible, processed, transferred, and stored regardless of location or time, borders and geographical distances are no longer as critical as they used to be, and wholly new, invisible electronic spaces are now available. The digital era began with the development of computers and communication technologies which are constantly evolving. Indeed, the continuous advances of information and communication technology have enabled the scope of human activity to expand continuously in the electronic space and to create a variety of changes in the ways workplace activities are carried out. Today, new media technologies permeate almost everything, thereby enabling people to access, control and secure their private and work environments at any time and from anywhere (Casio & Montealegre, 2016).

However, while the new media technology can be used to enhance workplace security, it can as well be used to oppress people at work (Coovert & Thompson, 2014). Indeed; the implementation of modern technology obviously reflects both of these outcomes. Scholars of organisational communication have made recommendations on how to secure the workplace. Thomas (2017) recommends that, organisations should restrict access when it is appropriate so workers can access the areas and tools they need to perform their jobs, with the risk of them visiting parts of the business place where their presence is not required. For instance, production employees may have no work reason to visit computer rooms and bookkeeper probably does not need to be near heavy equipment or materials. It is also recommended that contractors and visitors be given restricted access. A good policy is to follow the "minimum access necessary" policy, and to limit the time period - if contractors should only be on-site from 8 a.m. to 5 p.m., programme their keys to deny access outside those time periods. The new media technologies are changing the ways employees work and live. They have brought about electronic monitoring systems, teleconferencing, and wearable devices. These technologies facilitate physical and virtual interactions among employees in organisations.

Electronic Monitoring Systems

Ball (2010) defines monitoring as systems, people, and processes used to collect, store, analyze, and report the actions or performance of individuals or groups on the job. In recent time, with new media technologies monitoring has assumed a variety of forms: telephone, video, Internet, and GPS. Kidwell and Sprague (2009) report that in the past, courts have generally sided with employers who have chosen to monitor their employees, arguing that because monitoring takes place during work using organisational assets (e.g., corporate computer networks, electronic mail), monitoring is acceptable. Many organisations are equipping machinery, shipments, infrastructure, devices, and even employees with networked sensors and actuators that enable them to monitor their private and most importantly workplace environment. They report their status, receive instructions, and take actions based on the information they receive. Organisations that monitor their work environment, better control the flow of operations and avoid disruptions by taking immediate actions and engaging in preventive solutions when problems arise (Ball, 2010).

According to McNall and Stanton (2011), organisations are also developing policies about using blogs and social networks such as Facebook outside of work, and this can affect employees' perceptions of trust and loss of personal control.

Although social media have transformed the ways people interact with information; it is important to note that the term social media does not refer to a specific technology, but rather to a family of technologies with a common set of ideals at the core of their design (Landers & Goldberg 2014). Such ideals include the following: Users should be able to generate their own content to share as they wish, information should be provided free and honestly, personal opinions from unbiased persons can be trusted, and the mob is wise.

Apparently, not all of these ideas are met in practice. Monitoring per se is neither good nor bad; it depends on how it is implemented. Monitoring can certainly be beneficial, as self-initiated systems demonstrate. Systems that enable employees to track their activities at work have led to increases in productivity by helping people to understand better how they are allocating their time (Osman, 2010). This understanding allows workers to reallocate their time, tasks, and activities to accomplish goals at work more effectively.

One major factor that can be associated with electronic monitoring systems is stress. Scholars have stated that when organisations impose control they reduce autonomy and increase perceived job demands which can contribute to burnout (Schaufeli, Leiter, & Maslach, 2009; Nixon &Spector 2014). It is evident that close supervision is associated with increased stress (Lu 2005). With electronic monitoring a supervisor or higher-level manager need not even be present to monitor. As a result, the potentially unceasing, continuous capability to monitor creates an unrelenting type of control that employees often regard as particularly stressful. As a general conclusion, when electronic monitoring is seen as control-based rather than developmental, employees are likely to experience more negative outcomes (Castanheira & Chambel 2010).

Teleconferencing

Citing Rogan and Simmons (1984), Casio and Montealegre (2016) describe teleconferencing as an interactive group communication (three or more people in two or more locations) through an electronic medium. The concept was first introduced in the 1960s with American Telephone and Telegraph's Picture phone. There are at least five types of teleconferencing: audio, audiographic, video, web, and business television. Virtual teams, where members are not physically co-located, represent just one type of extended work arrangement where teleconferencing has facilitated the unification of the physical and electronic spaces. Perhaps, the biggest advantage of virtual teams is that by crossing geographical, cultural, organisational, and time boundaries, organisations can leverage a larger pool of intellectual resources and diverse talent to solve problems (Potosky & Lomax, 2014). Virtual teams represent just one type of work arrangement where technology has facilitated the seamless movement of work in dimensions of time and space. Today, most large organisations and many smaller ones use them (Farr, Fairchild & Cassidy, 2014).

Wearable Computing Devices

Wearable computing devices, also known as wearables are electronic technologies or computers that are incorporated into items of clothing and accessories that can comfortably be worn on the body (Tehrani & Michael, 2014). They can be networked or might store data that can be transferred later to other devices. In many cases, the technology need not be activated; it simply functions as part of the item. Educase (2013) say wearables can gather data from the body of the wearer or from the environment or provide information, or both. They generally comprise three broad categories: Quantified self-products - allow people to measure activities that they engage in, such as physical activity and sleep (think Fitbit and Jawbone); enhancement technologies - Google Glass is one example, but prosthetic devices and exoskeletons are others, which allow elderly people or those with handicaps to overcome their disabilities and virtual reality devices, including headsets and telepresence systems (Wooldridge 2015).

The nature of work and workplace is truly changing. Sensors embedded in the smart vending machines, combined with broadband access and cloud computing, allow employees to monitor their offices, businesses, or work environment remotely for items out of stock, employees' activities, or act of stealing (Shoot, 2014). Although the promise of wearable computing devices is obvious, there are also shortcomings. The first is distraction, as people are half present and half absent, constantly checking their

smartphones as they walk along or stand in line. This could be done on an average of 150 times a day (Meeker, 2013). This can wreak havoc on work/life integration, as there is no boundary by time or geography on when or where people work (Vanderkam, 2015). The second disadvantage is that digital devices make human interaction more difficult as the devices compete constantly for people's attention. However, despite the shortcomings, wearables are technologies that can help check security threat in workplace (Meeker, 2013).

New Media Technology

Technological advancements and innovations have entirely reshaped and re-organised organisations by making business processes highly integrated, systematised and more streamlined. This is evident in small or medium enterprises. Small businesses are run by small number of persons so they need technology to facilitate some of their activities. As Prassad (2018) observes technological advancements have helped these businesses in running their tasks smoothly and performing well than ever before. In recent past, organisations were in a mess as they had to deal with a lot of paperwork, meetings had to be held in rooms, travel expenses were incurred on client meetings and communication across the organisation was not so easy. From the way of communicating with employees and shareholders to providing solutions to basic communication problems, technology has helped businesses or organisations to break even. Businesses no longer need to take a pause in any of their tasks. All the operational and communication issues have now been simplified and streamlined with the help of new technology.

Whatever barriers, like the communication barriers, task-performing barriers, management barriers, or outsourcing barriers, previously experienced in workplaces have been overcome by the invention of technology. Internet and various software applications have made it possible for businesses to remain focused on their goals with no or negligible disruption by the day-to-day operational procedures.

Theoretical Framework of the Study

This study is framed around Technological Determinism Theory coined by Thorsten Veblen (1857 – 1929) but its foundation was laid properly by Marshal McLuhan in 1965. The theory believes that technology defines the nature of the society; it is viewed as the driving force of culture in the society and it determines its course of history. Expatiating on the McLuhan's postulation, Griffin (2000) observes that the new technologies… radically alter the entire way people use their five senses, the way they react to things and therefore their entire lives and the entire society.

The basic premise of the theory is that technologies create new environments. That technological progress leads to new ways of production in a society and this ultimately influences the culture, political, economic and security aspects of a society, thereby inevitably changing the society. For example, an organisation that used security guards at the entrance gate and within the premises can introduce CCTV cameras and other security gadgets which can transform the security apparatus of the organisation and make it safer than the analogue system of security check.

Technological Determinism Theory shows up at various levels, starting with introduction of newer technologies, introducing various changes and at times, which can also lead to a host of existing knowledge as well. According to Asemah, Nwammuo and Nkwam-Uwaoma (2017), technological determinism theory acknowledges that technology has the ability to drive human interaction and create social change. This concept focuses on the effects and/or impacts that new technologies have on the public. New Technologies shape how we, as individuals in the society think, feel, and act or how society operates as it moves from one technological stage to another. Technological advancement has exerted enormous powers on the way people make their choices in sectors that satisfy their desires. For instance, the advent of wearable computing devices available today support the assertion that one can be at a place and collects information about the goings on in the place without necessarily asking questions. All that is required is having the wearable on. Ukonu, Ani and Ndubuisi (2013) insist that the level of awareness of new technologies by the public

determines the level of influence the new technologies will have on the public, since technology alters the perception of the audience.

Methodology

This study adopted the survey method. According to Wimmer and Dominick (2016), survey research requires careful planning and execution, and the research must take into account a wide variety of decisions and problems. Survey method became relevant to this study due to its ability to investigate problems in realistic setting. A typical example of a realistic setting is the Civil Service where government plans are executed and decisions made. As a result, the survey method attempts to explain the situation, as they exist. Thus the instruments used for data collection was the questionnaire.

The population of the study consisted of civil servants in the State Ministries, Departments and Extra-Ministerial departments in the Civil Service. From the Akwa Ibom State Civil Service Commission Report of December 2019, the staff strength of the Civil Service stood at sixteen thousand, one hundred and eighty-three (16,183). A breakdown of this report showed that 5,537 were in the junior level cadre, while 10, 646 were civil servants at the senior cadre. Therefore, the population for this study was (16, 183) sixteen thousand, one hundred and eighty-three as seen in the breakdown below:

Table 1: Staff population in the AKS civil service

Units	Junior Cadre	Senior Cadre	Total
Extra-Ministerial Departments	2,211	4,730	6,941(43%)
Departments in the Office of the Governor	828	1,225	2,053 (13%)
Ministries	2,498	4,961	7,189 (44%)
Total	**5,539 (34%)**	**10,464 (66%)**	**16,183**

Source: AKS Civil Service Commission 2019 Report

The data in the Table one indicate that the majority of the respondents were from ministries with those in the junior cadre being 2, 498, while those in the senior cadre were 4, 961.

Four hundred (400) copies of the questionnaire were administered on different categories of civil servants. Of the 400 copies of questionnaire distributed to respondents, 375 copies were returned, leaving out fifteen (15) copies unreturned while ten copies of the questionnaire returned, were found unusable for analysis.

Data Presentation and Analysis

Table 2: Nature of workplace security in the Akwa Ibom State Civil Service

Options	Frequency	Percentage
Physical security	57	15
Access restrictions	44	12
Safety regulations	57	15
IT system/data protection	53	14
Video cameras installations	23	6
Use of electronic keys	20	5
Provision of staff identification/visitors badges	66	18
Well-lit work environments	55	15
Total	**375**	**100**

The data in Table 2 show that 18% of the respondents said the use of staff identification/visitors badges by both staff and visitors into the Akwa Ibom State Civil Service premises was the nature of workplace security.

Table 3: The role new media technology plays in strengthening workplace security in the Akwa Ibom State Civil Service

Options	Frequency	Percentage
Information storage and retrieval	56	15
Ensures productivity in the workplace	32	8
Instant/steady flow communication	31	8
Highly integrated and more streamlined business processes	12	3
Centralized control	22	6
Increased timeliness	31	8
Smooth task delivery	25	7
Erodes task-performing barriers	10	3
Changes business communication	11	3
Improves efficiency of employees	14	4
Makes for an organized/productive work environment	32	9
Helps in cost management	23	6
Keeps data/business secure	23	6
Reduces the risk of security breaches	32	8
Increases collaborations	21	6
Total	**375**	**100**

In Table 3, the majority of the respondents (15%) claimed that the major role of new media technology in the Akwa Ibom State Civil Service is information storage and retrieval.

Table 4: Conversancy of employees in the Akwa Ibom State Civil Service with the use of new media technology in strengthening workplace security

Options	Frequency	Percentage
I am conversant with the use of new media technology	101	27
I am not conversant with the use of new media technology	188	50
I know very little on new media technology	86	23
Total	**375**	**100**

In Table 4, most of the respondents (50%) said they were not conversant with the use of new media technology which may affect growth.

Table 5: Ways of strengthening workplace security through the use of new media technology in the Akwa Ibom State Civil Service

Options	Frequency	Percentage
Training and retraining on the use of the new media technology in the workplace	61	16
Proper integration of employees in the lower cadre on the use of new media technology	200	53
Ensuring a compulsory use of new media technology in information dissemination	70	19
Allowing for uniformity on the use of new media technology	44	12
Total	**375**	**100**

The data in Table 5 show that majority of the respondents (53%) call for proper integration of employees in the lower cadre on the use of new media technology so as to strengthen workplace security in the Akwa Ibom State Civil Service.

Discussion of Findings

This study focused on strengthening workplace security through new media technology in the Akwa Ibom State Civil Service. The descriptive statistics result in Table 2 shows the percentage scores of the nature of workplace security in the Akwa Ibom State Civil Service. Analysis shows that out of the 375 respondents, 18% attested to the fact that provision of staff identification/visitors badges was one of the ways of strengthening workplace security in the Akwa Ibom State Civil Service. The respondents who acknowledged physical security, safety regulations, and well-lit work environment were 15% respectively. Information Technology data production, Video cameras and electronic keys had 14%, 6% and 5%, respectively. These results indicate that the nature of workplace security in Akwa Ibom State Civil Service is low with regard to the application of new media technologies. Technology should be the driving force behind continuous improvements in what an organisation produces and the means by which human productivity is increased (Cook & Hunsaker, 2001). Many organisations are equipping machinery, shipments, infrastructure, devices, and even employees with networked sensors and actuators that enable them to monitor their private and most importantly workplace environment (Kidwell & Sprague, 2009). Organisations that deploy new media technologies in their work environment, better control the flow of operations and avoid disruptions by taking immediate actions and engaging in preventive solutions when problems arise (Ball, 2010). New media technologies are not only helping people do things better and faster than before, but it is facilitating new ways of control, coordination, and collaboration on activities more readily, at lower costs (Casio & Montealegre, 2016). It could be deduced from this result that the usage of new media technologies in the Akwa Ibom State Civil service, is low and needs improvement in order to make way for a vibrant workforce with greater efficiency and development.

The results of the study have shown various roles the new media technology can play in strengthening workplace security. From the data in Table 3, respondents have identified these roles played by new media technology in the Akwa Ibom State Civil Service. They include Information storage and retrieval (15%), make for an organised and productive work environment (9%), increased timeliness (8%), ensures productivity in the workplace (8%), instant/steady flow communication (8%), smooth task delivery (7%), centralised control (6%) and cost management (6%). This findings align with Prassad (2018) submission that technological advancements and innovations have completely reshaped and re-organised organisations by making business processes highly integrated,

systematised and more streamlined. New technologies have facilitated businesses in the smooth running of their tasks and performance better than what it used to be. The basic tenet of technological determinism theory is that technologies create new environments; technological progress leads to new ways of production in an organisation which ultimately influences the nature, economic and security aspects of the organisation, thereby inevitably transforming the organisation (Griffin, 2000). Previous study indicates that new media can help individuals acquire resources such as information and connections that can help productivity (Hanna, Rohm, & Crittenden, 2011). The impact of new media technologies, has been described as having such parallel "dual effects" (Carlson, Harris, Zivnuska & Harris, 2016). There is therefore the need to ensure an efficient use of new media technology for a thriving organisation.

The results of the study have equally shown that most civil servants in the Akwa Ibom State Civil Service were not conversant with the use of new media technologies. As evident from the data in Table 4, 50% of the respondents attested to the fact that they were not new media technologies compliant. Twenty-seven percent (27%) of the respondents said they were conversant while 23% claimed they had little knowledge about the usage of new media technologies. The findings further show that most of the respondents who were not conversant with the use of new media technologies were those in the lower cadre of the workforce. This is indeed a disadvantage to organisational growth and effectiveness and any management that intends to succeed should carry his/her workforce along regarding the use of technology, cadre notwithstanding. Expounding on technology determinism theory, Ukonu *et al.,* (2013) say the level of awareness/knowledge in the use of new technologies by the public determines the level of influence the new technologies will have on the public, since technology alters the perception of the audience. A situation where new media technologies become solely tools in the hands of superior will make for a disadvantaged organisation.

The finding on the suggestions on ways of strengthening workplace security in the Akwa Ibom State Civil Service is contained in the data expressed in Table 5. Only 12% of the 375 respondents indicated allowing for uniformity on the use of new media technology whereas 16% suggested training and retraining of the workforce on the use of the new media technology in the workplace. Respondents (53%) suggested proper integration of employees in the lower cadre on the use of new media technology while 19% said ensuring a compulsory use of new media technology in information dissemination should be vigorously pursued. Integrating the entire workforce in the use of new media technologies reduces communication barriers, task-performing barriers, management barriers, or outsourcing barriers, previously experienced in workplaces (Prassad, 2018). If these suggestions are followed, the Akwa Ibom State Civil Service will be strengthened in its delivery of qualitative services to the government as well as the people.

Conclusion and Recommendations

The workplace environment in many organisations today has witnessed tremendous transformation due to the emergence of new media technologies to aid in effective and efficient job delivery. It has therefore become necessary for the Akwa Ibom State Civil Service and similar organisations to ensure workplace security through the use of new media technologies so that task can be carried out effectively and efficiently. It recommended from the study that Akwa Ibom State Civil Service should embrace wholly the use of new media technology in enforcing workplace security. All cadres of the workforce in the civil service should be trained and retrained to be conversant with the use of new media technologies. There should be the compulsory use of new media technology in information dissemination within and outside the organisation.

References

Alter, S. (2013). Work system theory: overview of core concepts, extensions, and challenges for the future. *J. Assoc.Inf. Syst.* 14 (12), 72–121.

Asemah, E. S.; Nwammuo, A. N. & Nkwam-Uwaoma, A. O. A. (2017). *Theories and models of communication* (Rev ed.). Jos: Jos University Press.

Ball, K. (2010). Workplace surveillance: an overview. *Labor Hist.* 51:87–106

Beus, J. M., McCord, M. A. & Zohar, D. (2016). Workplace safety: A review and research synthesis. *Organisational Psychology Review*, 6 (4), 352-381.

Bretschneider, S., and Parker, M. (2016). Organization formalization, sector and social media: Does increased standardization of policy broaden and deepen social media use in organizations? *Gov. Inf. Q.* 33, 614–628.

Broughton, M., Paay, J., Kjeldskov, J., O'Hara, K., Li, J., Phillips, M., *et al*., (2009). Being here: Designing for distributed hands-on collaboration in blended interaction spaces, in *Proceedings of the 21st Annual Conference of the Australian Computer-Human Interaction Special Interest Group: Design: Open 24/7*, 73–80.

Carlson, J. R., Harris, R. B., Zivnuska, S. & Harris, K. J. (2016). Social media use in the workplace: A study of dual effects. *Journal of Organisational and End User Computing,* 28 (1). 15-31.

Casio, W. F. & Montealegre, R. (2016). How technology is changing work and organizations. Annual review of organizational psychology and organizational behavior. Available at: https://www.researchgate.net/publication/299400943 DOI: 10.1146/annurev-orgpsych-041015-062352

Castanheira, F. & Chambel, M. J. (2010). Reducing burnout in call centers through HR practices. *Human Resources Management.* 49, 1047–65.

Charoensukmongkol, P. (2014). Effects of support and job demands on social media use and work outcomes. *Computing Human Behaviour.* 36, 340–349.

Coovert, M.D. & Thompson, L. F. (2014). *The psychology of workplace technology*. New York: Rutledge.

Correa, T., Hinsley, A. W., and De Zuniga, H. G. (2010). Who interacts on the Web? The intersection of users' personality and social media use. *Computing Human Behaviour* 26, 247–253.

De Zubielqui, G. C., Fryges, H., & Jones, J. (2019). Social media, open innovation and HRM: implications for performance. *Technology Forecast Social Change* 144, 334–347.

Drummond, C., Mcgrath, H., & O'Toole, T. (2017). The impact of social media on resource mobilisation in entrepreneurial firms. *Industrial Marketing Management.* 70, 68–89.

Educase, (2013). 7 Things you should know about wearable technology. *Educase Learning Initiatives*, Retrieved March 22, 2023 from: https://net.educause.edu/ir/library/pdf/eli7102.pdf

Farr, J. L., Fairchild, J., & Cassidy, S. E. (2014). Technology and performance appraisal. See Coovert & Thompson 2014a, pp. 77–98

Hanna, R., Rohm, A., & Crittenden, V. L. (2011). We're all connected: The power of the social media ecosystem. *Business Horizons*, *54* (3), 265–273. doi:10.1016/j.bushor.2011.01.007

Holland, P., Cooper, B. K., & Hecker, R. (2016). Use of social media at work: A new form of employee voice? *Int. J. Hum. Resources Management.* 27, 2621–2634.

Jiang, H., Luo, Y., & Kulemeka, O. (2016). Leading in the digital age: a study of how social media are transforming the work of communication professionals. *Telemat. Inform.* 33, 493 – 499.

Kidwell RE, Sprague R. 2009. Electronic surveillance in the global workplace: laws, ethics, research, andpractice. *N. Technol, Work, Employ.* 24:194–208

Landers RN, Goldberg AS. 2014. Online social media in the workplace: a conversation with employees. See Coovert & Thompson 2014a, pp. 284–304

Moqbel, M., Nevo, S., & Kock, N. (2013). Organizational members' use of social networking sites and job performance: An exploratory study. *Inform. Technol. People* 26, 240–264.

McNall, L. A. & Stanton J. M. (2011). Private eyes arewatching you: reactions to location-sensing technologies. *Journal of Business Psychology,* 26, 299–309

Meeker M. (2013). Internet trends report. *Kleiner, Perkins,Caulfield, and Byers*,May 29. http://abcnews.go.com/ blogs/technology/2013/05/cellphone-users-check-phones-150xday-and-other-Internet-funfacts/

Osman M. (2010). Controlling uncertainty: a review of human behavior in complex, dynamic environments. *Psychol. Bull.* 136, 65–86.

Potosky, D. & Lomax, M. W. (2014). Leadership and technology: a love-hate relationship. See Coovert & Thompson 2014a, pp. 118–46

Parveen, F., Jaafar, N. I., & Ainin, S. (2015). Social media usage and organizational performance: reflections of Malaysian social media managers. *Telemat. Inform.* 32, 67–78.

Parveen, F., Jaafar, N. I., & Ainin, S. (2016). Social media's impact on organizational performance and entrepreneurial orientation in organizations. *Management Decision*. 54, 2208–2234.

Prassad, A. (2018). The *benefits of technology in the workplace*. Quick MXL Publication.

Schaufeli, W. B., Leiter, M. P, & Maslach, C. (2009). Burnout: Thirty-five years of research and practice. *Career Development. Int.* 14 (3), 204–20.

Shoot, B. (2014). The smart vending machine. *Fortune*, Nov. 17, 49

Tehrani, K. & Michael, A. (2014). Wearable technology and wearable devices: Everything you need to know. *Wearable Devices Magazine*, March. Available at: http://www.wearabledevices.com/what-is-a-wearable-device/

Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2014). Social media technology usage and customer relationship performance: a capabilities-based examination of social CRM. *Journal of Business Research,* 67, 1201–1208.

Tajudeen, F. P., Jaafar, N. I., & Ainin, S. (2018). Understanding the impact of social media usage among organizations. *Information Management*, 55, 308–321.

Turban, E., Bolloju, N., & Liang, T. P. (2011). Enterprise social networking: opportunities, adoption, and risk mitigation. *J. Organ. Comput. Electron. Commer.* 21, 202–220.

Ukonu, M.; Ani, M. & Ndubuisi, C. (2013). The influence of online newspaper readership on print newspaper purchases: A study of Nigerian universities in South-East Nigeria. *The Nigerian Journal of Communication*, 11(1), 190 - 213.

Van Zoonen, W., van der Meer, T. G., & Verhoeven, J. W. (2014a). Employees' work-related social-media use: His master's voice. *Public Relat. Rev.* 40, 850–852.

Van Zoonen, W., Verhoeven, J., and Elving, W. (2014b). Understanding work-related social media use: An extension of theory of planned behavior. *Int. J. Manage. Econ. Soc. Sci.* 3, 164–183.

Van Zoonen, W., Verhoeven, J. W., and Vliegenthart, R. (2017). Understanding the consequences of public social media use for work. *Eur. Manage. J.* 35, 595–605.

Vanderkam L. 2015. Work/life integration is the new normal. *Fortune*, March 15, p. 139

Villanueva, J., Yoo, S., and Hanssens, D. M. (2008). The impact of marketing-induced versus word-of-mouth customer acquisition on customer equity growth. *Journal of Marketing Research,* 45, 48–59.

Wamba, S. F., & Carter, L. (2014). Social media tools adoption and use by SMEs: An empirical study. *Journal of Organizational and End User Computing*, *26* (2), 1–17.

Wooldridge A. (2015). The Icarus syndrome meets the wearable revolution. *Korn/Ferry Briefings Talent Leadership,* 6, 27–33.