Salve Regina University
Digital Commons @ Salve Regina

Faculty and Staff - Articles & Papers   Faculty and Staff

Spring 2016

Management and Telework

Arlene J. Nicholas
Salve Regina University, nicholaa@salve.edu

Follow this and additional works at: http://digitalcommons.salve.edu/fac_staff_pub

Part of the Benefits and Compensation Commons, Business Administration, Management, and Operations Commons, Organizational Behavior and Theory Commons, Organization Development Commons, Performance Management Commons, and the Technology and Innovation Commons

Chapter Summary of "**Management and Telework**"

This chapter provides an overview of telework – an employment option that can be of benefit to organizations, workers and society. Telework is defined and its benefits and challenges are discussed. The chapter also addresses current usage in organizations and the successful management of teleworkers.

Dr. Arlene J. Nicholas is the Graduate Director of the MBA and MS programs at Salve Regina University in Newport, RI and is a recognized authority in the field of telework. Dr. Nicholas has published her dissertation, written several journal articles and given numerous presentations on telework, telework management and generational preferences for telework.

Management and Telework

Arlene J. Nicholas
Business Studies and Economics Department
Salve Regina University
100 Ochre Point Ave.
Newport, Rhode Island, 02840, USA.
voice: 401-341-3280
email: arlene.nicholas@salve.edu

Management and Telework

Arlene J. Nicholas *Salve Regina University, USA*

INTRODUCTION

This chapter discusses telework as a desirable option for workers and how it can be a valuable tool for employers seeking to attract and retain employees. Telework can be performed as a supplemental or a full-time employment opportunity for local, regional or global work. Telework's many benefits are appealing to technologically competent and confident workers. These workers must be self-starters, able to work with minimal supervision, and, in some cases, rely on technological communications for professional interactions. Managers may be concerned with employee accessibility, productivity and possible loss of management roles (Arnold, 2006). Recently, Marissa Meyer, CEO of Yahoo, banned working from home and received a backlash from workers and professionals. The move was described as a step backward that counters studies of increased productivity, retention and job satisfaction and could demoralize the Yahoo workers (Cohan, 2013; Gaudreau, 2013). An overview of telework's benefits, incentives, organizational examples as well as possible deterrents and management resistance are identified.

BACKGROUND

Telework is a growing method of employment with a variety of benefits. Telework enables work from anywhere, anytime through information communication technologies (ICT) (Garett & Danziger, 2006). It was used by 85 of Fortune's " 2012 Best 100 Companies To Work For" and 84 of the 2013 list (CNN 2013) with the top ten teleworking companies ranging from 40% – 90% of regular users (see Table 1). This award is voted for by employees who evaluate some of the best practices, fairness and services of an organization (Rodensky, Rybeck, Johnson & Rollins, 2010).

Company	% of regular telecommuters
Cisco	90%
Baptist Health South Florida	88%
Accenture	81%
Teach For America	81%
Intel	80%
World Wide Technology	70%
PricewaterhouseCoopers	70%
Ultimate Software	50%
Perkins Coie	70%
American Fidelity Assurance Co.	40%

Table 1. Sample of Companies using Telework. Source: CNNMoney.com/Fortune

Telework is considered one of those best practices that allows employees flexible options for improved work/life balance. For organizations, telework is a savvy strategic management plan (Kowalski & Swanson, 2005). For example, Baptist Health South Florida, with over 13,000 employees – 88% of whom make use of telework, has a 4% full-time voluntary turnover rate (Rodensky et al., 2012). There are other attractions to South Florida's largest private employer and 42nd ranked 2012 Best Company to Work for, such as tuition benefits, but 'regular' teleworkers are the majority of workers. Telework brings increased benefits for the employer, the employee and society:

Organizational	Employee	Societal
- Productivity	- Savings	-Work opportunities
- Flexible Employment	- Flexibility	disabled, homebound, distant
- Virtual Workplace	- Work/life Balance	- Ecological – less car pollution
24 hour cycle	- Some autonomy	- Environmental -
- Continuity		less traffic congestion

(Rhodes, 2009; Telecommuter, 2008; Telework, 2009; Ursery, 2003)

MAIN FOCUS
Much of the literature describes teleworking, sometimes referred to as telecommuting, as employees who use computer technology to work for an employer from home or remote locations on a regular or occasional basis (Baruch, 2003; Gajendran & Harrrison, 2007; Nilles, 1994). There have been variances of teleworking definitions depending on the contracts, locations and tasks (Gálvez, Martínez & Pérez, 2012). A teleworker is defined by Macmillan dictionary (2013) as "someone who works at home on a computer and communicates with their [sic] office or customers by telephone, fax, or email". The term is not yet listed in Miriam-Webster's dictionary.

The U.S. has a low percentage of teleworkers at 9%, although there is some legislation to encourage and mandate teleworking. Europe is also low at 9% teleworkers, compared to emerging markets: Asia-Pacific, 24%; Latin America, 25%; Africa and the Middle East, 27% each. The highest percentage reported is India with 82% teleworking at least once a week, and 57% are frequent teleworkers, some as outsourced jobs (Reaney, 2012). Some differences of teleworkers certainly relate to job opportunities and cultural norms.

Challenge to Management
Keeping teleworkers connected is one of the challenges for management. Managers of teleworkers must motivate and inspire out of sight workers and provide authentic information sharing from managers to workers and between work teams. However, an affinity distance problem can result when there are trust issues between team members who have never met one another (Reilly & Lojeski, 2009). Managers too must overcome lack of trust for workers who are miles away (Leonard, 2011). Some face-to-face interventions are recommended, but when that is not always possible, video conference, Skype, Facebook, personal blogs and even Second Life virtual meetings have been used to give some connection between teams and leaders (Klein, 2008). Reiterating the

mission/vision/goals can help reduce operational distances amongst teams' interpretations of the organizational practices (Reilly& Lojeski, 2009).

Motivation

If managers deny teleworking requests, it could result in de-motivating the workers. In a study of Department of Health and Human Services workers (98% of whom are eligible for telework), the employees who were denied the opportunity to telework reported lower motivation than the employees who did telework (Caillier, 2012). Interestingly, employees who teleworked frequently, more than two days a week, reported less motivation than employees who teleworked infrequently, up to two days a week. According to Golden (2006), this decline of satisfaction with extensive telework is a result of isolation from co-workers and lack of face-to-face interaction with managers. Studies of some U.S. workers note that the social isolation or relational impoverishment of teleworking has negative effects on job performance (Gajendran & Harrison, 2007; Golden, Veiga, & Dino, 2008).

There are also positive aspects of being away from the workplace, however, such as avoiding office politics and gossip (Ellison, 2004; Fonner & Roloff, 2010; Kurland & Cooper, 2002). The physical distance may ensure that contact, such as phone or e-mail, is kept professional and focused on job related matters - not any drama. Of course, avoiding this personal type of information sharing or wanting to shop talk is an individual preference of an employee. For productive organizational work, the teleworker is most dependent on reliable and accurate data. The solitude and comfort of one's home, distant from office blather with access to only work information and autonomy can be beneficial and motivational for the teleworker (Ballenstedt, 2013: Ward & Shabba, 2001).

Legislation

In March of 2010, a U.S. House subcommittee approved legislation to promote telework in Federal agencies. The Telework Enhancement Act of 2010 (http://www.gpo.gov/fdsys/pkg/BILLS-111hr1722enr/pdf/BILLS-111hr1722enr.pdf) mandated a government-wide telework policy. Agencies are required to allow eligible employees to work at least 20 hours a week remotely (Rosenberg, 2010).

The law has been successful. In 2009, only 10% of eligible federal workers telecommuted. In Sept 2011, almost 21% were regular teleworkers (Resneck, 2012). According to the Telework Advisory Group of World at Work – a not for profit organization of 30,000 members in 100 countries, founded in 1995 - the representative teleworker is a college educated 40 year old male working from home. And although the people who worked remotely one day a month has declined, the number teleworking more than one day a month increased (Telework 2011, 2011).

As The Telework Enhancement Act sensibly required agencies to train managers on supervising teleworkers (Rosenberg, 2010), this is something the corporate world must address also ("Managing Teleworkers …", 2009). Training managers how to supervise and guide teleworkers may be challenging given some resistance noted by earlier and recent studies of managers unwilling to give up direct control of the visible worker (Clear & Dickson, 2005; Daniels, Lamond, & Standon, 2001; Tuutti, 2012).

Future Workforce
The International Data Corporation, IDC predicts that mobile workers will increase to over 1.3 billion in 2015 (Crook, Jaffe, Boggs & Drake, 2011). These teleworkers include knowledge workers, a term coined by management author Peter Drucker, who are occupied with analysis and manipulation of data as opposed to production (Knowledge worker, 2010). Today's technology has enabled knowledge workers to work remotely from anywhere in the world be it at home, an offsite office or telecenter, or even a coffee shop.

It is expected that, by 2015, there will be an additional 180,000 business day telecommuters per year because of the improving economy. These are not the workers who take home additional work after regular business hours - although those 'extra' work employees will exceed 27 million in 2015 (McKendrick, 2011). Improved ICT, personal incentives and even employer encouragement will add to the numbers.

Additionally, the workforce of today is becoming more populated with Gen Xers (1965-1980) who grew up with computers and many have families and the Net Generation's (1981-2001) tech savvy employees who may want to telework. This is a different mindset from most Baby Boomers (born 1946-1964) who may perceive being away from the workplace as detrimental to their careers. However, even the 'sandwich' generation could appreciate flexibility to take care of aging parents or spend time with growing grandchildren.

For the new generation of workers, the reported benefits of teleworking could relate to their description of being "less at home with the real world than in the virtual world" (Eisner, 2005, p.2). Combining their technological penchant with the Net Generation's team-orientation (Bridges, & Johnson, 2006) would seem to make the virtual team scenario of telework very compatible and its eco-friendly aspect would appeal to these socially conscious citizens (Eisener, 2005; Raines, 2002). Whereas, many Baby Boomers have been assessed as reluctant to use new technology which has not really been designed for or marketed to older users (Burdick, 2005). There may be need for additional training and support regarding technology and the selection and management of teleworkers.

Solutions and Recommendations
For teleworkers that are beyond the reach of the office, if there is one, interaction with managers and team members can be critical. Managers need defined meeting times and agendas, and, in the cultural context, learn to communicate in the language of the tele-workforce (Klein, 2008). Traditional management has to transition from visible supervision to performance-based management that concentrates on quality and punctuality (Arnold, 2006).

Infrequent teleworkers, especially those who may be part of an alternate shared workspace arrangement, such as in-office work on Monday/Wednesday/Friday with the same office used on Tuesday/Thursday by another colleague, should also be connected by management arrangement meetings.

Peter Linkow, president of WFD Consulting, based in Newton, MA, and research leader of the Conference Board's Research Working Group on Managing a Distant Workforce gives 10 recommended guidelines for distant managers:
1. Recruit for character, build fundamentals then develop distance competencies
2. Emphasize relationships as much as tasks
3. Create intra-company collaboration, then assess it

4. Build solid communication infrastructure
5. Secure the upper management support that employees need to be successful
6. Set clear goals and then empower distant employees to determine how to achieve them
7. Focus managers on creating a work environment that enables employee achievement
8. Concentrate on the job environment
9. Approach cultural differences with an open mind
10. Support the distant managers who report to you. (Klein, 2008)

Making employees successful will also depend on easy to use technology and readily available support. The older workforce is not as resistant to technology as it is disappointed with its user unfriendliness which limits their use of information communications technology (ICT) (de Koning & Gelderblom, 2006).The younger workforce will demand speed and mobile applications (Tapscott, 2009). Results based managers will get the best out of their employees whether they are in the office or miles away (Leonard, 2011). "Telework training specialists say the management skills segment should cover communication, virtual team building and performance-based management (Arnold, 2006 83).

To contend with CEO Meyers' belief that workers must be in the office as meeting in hallways and offices will yield innovative collaborations (Gaudreau, 2013), teleworking combined with office work, as described previously as an infrequent teleworker, will allow for face-to-face connections and time to work from home. Additionally, for those who are too geographically distant from the office, Skype should be used for more personal online meetings (Collamer, 2013). Managing workers with some method of flexible time will show trust and consideration.

FUTURE RESEARCH
The value of teleworking programs to organizations and the workers must continually be assessed. Before and after comparisons of the effects of telework programs should be analyzed. Are there differences in desirability according to age, amount of teleworking time, support from management? Will increased communication through visual technology, required meetings improve worker satisfaction and productivity? Organizations will want to know how retention, recruitment, job satisfaction and productivity are affected by telework options.

Further studies on the reported curvilinear relationship of telework time for increased satisfaction with limited hours/days and then a decrease of satisfaction with too many hours/days (Golden & Viega, 2005) should be conducted. As previously noted from the research, this could be a critical phenomenon to understand for organizations that can offer varied schedules of telework. Management that can create more job satisfaction for employees could achieve more benefits for the organization (Harter, Schmidt, & Hayes, 2002).

CONCLUSION

Telework already is an indispensable form of working for the myriad benefits reviewed. These include continuity of work functions, attracting and recruiting employees, office space savings, and global extensions for organizations; flexibility, work/life balance, clothes/transportation savings, family care ability for employees; reduced traffic, less emissions, cultural and disability options for society. The difficulties for management of selection, training, procedures and connectivity to workers must be met as well as keeping up with the quick pace of changing technology. Clear and open communications can motivate and maintain a thriving workforce from anywhere, at anytime. As discussed, communications, trust and support will be an essential factor of successful teleworking implementations.

REFERENCES

Arnold, J. (2006). Making the leap. *HR Magazine*, *51*(5), 80-86. Retrieved from http://www.shrm.org/Publications/hrmagazine/EditorialContent/Pages/0506SRarnold.aspx.

Ballenstedt, B. (2013). Teleworkers are more motivated by autonomy than bonuses. *Wired Workplace.* Retrieved from http://www.nextgov.com/cio-briefing/wired-workplace/2013/01/teleworkers-are-more-motivated-autonomy-bonuses/60514/

Baruch, Y. (2003). The status of research on teleworking and an agenda for future research. *International Journal of Management Review, 3*(2), 113-129. doi: 10.1111/1468-2370.00058

Bridgers, M. & Johnson, H. (2006). The aging workforce: The facts, the fiction, the future! *ASHRAE Journal, 48*(1), A6-A9.

Burdick, D. C. (2005). Technology and aging: Not an oxymoron. *AGHEExchange, 28*(4), 1-4. Retrieved from http://www.capitalhealth.ca/NR/rdonlyres/eynmm2f7g3bdeiafxgznietliralz6neejay7hgmzixevjwtzdwduaw2m5fl5lbspexfaz24fil6zfdj5a5jjxqlcza/Dr.+David+Burdick+-+Articles+2.pdf.

Caillier, J. G. (2012). Impact of telework on work motivation in a U.S. federal government agency. *American Review of Public Administration, 42*(4), 461-480.

Clear, F. & Dickson, K. (2005). Teleworking practice in small and medium-sized firms: Management style and worker autonomy. *New Technology, Work and Employment, 20*(3), 218-233. doi.org/10.1111/j.1468-005X.2005.00155.x.

CNNMoney. (2013). Fortune 100 best companies to work for. Retrieved from http://money.cnn.com/magazines/fortune/best-companies/2013/perkfinder/index.html?iid=bc_sp_perk

Cohan, P. (February 26, 2013) 4 reasons Marissa Mayer's no-at-home-work policy is an epic failure. *Forbes.* Retrieved from http://www.forbes.com/sites/petercohan/2013/02/26/4-reasons-marissa-mayers-no-at-home-work-policy-is-an-epic-fail/

Collamer, N. (March 1, 2013). The problem with Yahoo's work-at-home ban. *Forbes.* Retrieved from http://www.forbes.com/sites/nextavenue/2013/03/01/the-problem-with-yahoos-work-at-home-ban/2/

Cooper, C. D., & Kurland, N. B. (2002). Telecommuting, professional isolation, and employee development in public and private organizations. *Journal of Organizational Behavior, 23*(4), 511-532.

Crook, S. K., Jaffe, J., Boggs, R. & Drake, S.D. (2011). Worldwide mobile worker population 2011-2015 forecast. Retrieved from http://www.idc.com/getdoc.jsp?containerId=232073

Daniels, K., Lamond, D., & Standen, P. (2001). Teleworking: Frameworks for organizational research. *Journal of Management Studies, 38*(8), 1151-1186**.**

de Koning, J. & Gelderblom, A. (2006). ICT and older workers: no unwrinkled relationship. *International Journal of Manpower, 27*(5), 467-490. doi:10.1108/01437720610683967.

Ellison, N. B. (2004). Telework and social change: How technology is reshaping the boundaries between home and work. Westport, CT: Praeger.

Eisner, S. P. (2005). Managing Generation Y. *S. A. M. Advanced Management Journal, 70*(4), 4-15.

Fonner, K. L., & Roloff, M. E. (2010). Why teleworkers are more satisfied with their Jobs than are office-based workers: When less contact is beneficial. *Journal of Applied Communication Research*, *38*(4), 336-361. doi: 10.1080100909882.2010.513998.

Gajendran, R. S., & Harrison, D. A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology, 92*(6)*,* 1524-1521.

Gálvez, A., Martínez, M. J. & Pérez, C. (2012). Telework and work-life balance: Some dimensions for organizational change. *Journal of Workplace Rights, 16*(3-4), 273-297. doi: 10.2190/WR.16.3-4.b

Garrett, R. K. & Danziger, J. N., (2006). Which telework? Defining and testing a taxonomy of technology-mediated work at a distance. *Social Science Computer Review 25*(1), 27-47. doi: 10.1177/0894439306293819.

Golden, T. D. (2006). The role of relationships in understanding telecommuter satisfaction. *Journal of Organizational Behavior, 27*(3), 319-34. doi: 10.1002/job.369

Golden, T. D., Veiga, J. F., & Dino, R. N. (2008).The impact of professional isolation on teleworker job performance and turnover intentions: Does time spent teleworking, interacting face-to-face, or having access to communication-enhancing technology matter? *Journal of Applied Psychology, 93*(6), 1412-1421. doi: 10.1037/a0012722.

Goudreau, J. (February 23, 2013). Back to the stone age? New Yahoo ceo Marissa Mayer bans working from home. *Forbes.* Retrieved from http://www.forbes.com/sites/jennagoudreau/2013/02/25/back-to-the-stone-age-new-yahoo-ceo-marissa-mayer-bans-working-from-home/

Harter, J. K., Schmidt, F. L. & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*(2), 268-279.

Klein, P. A. (2008). It's 9:05: Do you know where your workforce is? *Conference Board Review, 46*(2), 55-59.

Knowledge worker definition. (2010). Business dictionary. Retrieved from. http://www.businessdictionary.com/definition/knowledge-worker.html

Kowalski, K. B. & Swanson, J. A. (2005). Critical success factors in developing teleworking programs. *Benchmarking: An International Journal, 12*(3), 236 – 249. doi: 10.1108/14635770510600357 10.1108/14635770510600357

Leonard, B. (2011). Telework increasing slowly worldwide. *SHRM.* Retrieved from . http://www.shrm.org/hrdisciplines/technology/Articles/Pages/TeleworkWorldwide.aspx

Managing teleworkers requires topnotch performance management skills. U.S. Office of Personnel Management. Retrieved from
 http://www.opm.gov/perform/articles/2001/win01-1.asp

McKendrick, J. (2011). Telecommuting surge: 5 million new home-based offices by 2015. SmartPlanet, CBS Interactive. Retrieved from http://www.smartplanet.com/blog/business-brains/telecommuting-surge-5-million-new-home-based-offices-by-2015/14431

Nilles, J. (1994). Making telecommuting happen: A guide for telemanagers and telecommuters. New York: Van Nostrand Reinhold.

Raines, C. (2002). *Managing Millennials*. Retrieved from
 http://www.generationsatwork.com/articles/millenials.htm

Reaney, P. (2012). About one in five workers worldwide telecommute: poll. Reuters Retrieved from http://www.reuters.com/article/2012/01/25/us-telecommuting-idUSTRE80N1IL20120125

Reilly, R. R. & Lojeski, K. S. (2009). Leading the dispersed workforce. *Mechanical Engineering, 131*(11), 30-35.

Rhodes, M. (February 17, 2009). Telework revs up as more employers offer work flexibility. The Telework Advisory of World at Work, Retrieved from http://www.workingfromanywhere.org/news/pr021609.html

Rodensky, R., Rybeck, J., Johnson, H. & Rollins, M. (2010). Secrets to a robust telework program: The 'STIR' model. *SHRM*, Retrieved December, 2010. Retrieved from http://www.shrm.org/hrdisciplines/benefits/Articles/Pages/TeleworkModel.aspx

Rosenberg, A. (2010). Telework and benefits bills take one step forward. *Government Executive.* Retrieved from http://www.govexec.com/dailyfed/0310/032410ar1.htm

Tapscott, D. (2009). *Grown up digital: How the net generation is changing your world.* New York: McGraw-Hill.

Telecommuter update, 2008: Employer and employee profiles, changing work dynamics, and technology use. (August 15, 2008). *Market Research.com.* Retrieved from http://www.marketresearch.com/IDC-v2477/Telecommuter-Update-Employer-Employee-Profiles-1892624/

Telework 2011: A special report from WorldatWork. Retrieved from http://www.workingfromanywhere.org/

Telework = Better Health. (November, 2009). The Teleworker. Retrieved from http://www.teleworkexchange.com/teleworker-11-09b.asp

Teleworker. (2013). Macmillan Dictionary online. Retrieved from

http://www.macmillandictionary.com/dictionary/british/teleworker

Tuutti, C. (2012). Why federal managers resist telework. FCW: The Business of Federal Technology. Retrieved from http://fcw.com/articles/2012/07/11/reasons-federal-managers-resist-telework.aspx

Ursery, S. (May 2003). Austin fights air pollution with telework program. *American City, & County, Vol. 118*(5), 12-13.

ADDITIONAL READING SECTION

Arios Oliva, M., Souto Romero, M. & Pérez Portabella, A. (2011). Teleworking myths and realities. XVII Congreso Argentino de Ciencias de la Computación 1428-1436.

Baiamonte, L. W. (2012). Telecommunting: do you agree with it? Does your company agree with it? *Journal of Property Management*, *77*(3), 9.

Belzunegui-Eraso, A., Erro-Garcés, A., & Pastor-Gosálbez, I. (2013). Telework as a Driver of the Third Sector and its Networks. In T. Torres-Coronas, & M. Vidal-Blasco (Eds.), *Social E-Enterprise: Value Creation through ICT* (pp. 83-95). Hershey, PA: Information Science Reference. doi:10.4018/978-1-4666-2667-6.ch005

Bricout, J. C., Baker, P. M., Ward, A. C., & Moon, N. W. (2011). Teleworking and the "Disability Divide". In I. Management Association (Ed.), *Global Business: Concepts, Methodologies, Tools and Applications* (pp. 2112-2134). Hershey, PA: Business Science Reference. doi:10.4018/978-1-60960-587-2.ch718

Colbert, C. J. (2012). *Telework as part of a business continuity strategy: A path toward organizational resilience.* ProQuest UMI Dissertation.

Elsbach, K., & Cable, D. (2012). Why showing your face at work matters. *MIT Sloan Management Review*, *53*(4), 10-12.

Fonner, K. L., & Stache, L. C. (2012). Teleworkers' boundary management: Temporal, spatial, and expectation-setting strategies. In S. Long (Ed.), *Virtual Work and Human Interaction Research* (pp. 31-58). Hershey, PA: Information Science Reference. doi:10.4018/978-1-4666-0963-1.ch003

Gibbs, J. L., Scott, C. R., Kim, Y. H., & Lee, S. K. (2011). Examining Tensions in Telework Policies. In I. Management Association (Ed.), *Global Business: Concepts, Methodologies, Tools and Applications* (pp. 1413-1437). Hershey, PA: Business Science Reference. doi:10.4018/978-1-60960-587-2.ch508

Glenn Dutcher, E. E. (2012). The effects of telecommuting on productivity: An experimental examination. The role of dull and creative tasks. *Journal of Economic Behavior & Organization*, *84*(1), 355-363.

Global Workplace Analytics and the Telework Research Network. (2012). Whitepapers. Retrieved December, 2012. Retrieved from
http://www.teleworkresearchnetwork.com/whitepapers

Golden, T. (2012). Altering the effects of work and family conflict on exhaustion: Telework during traditional and nontraditional work hours. *Journal of Business & Psychology*, *27*(3), 255-269. doi: 10.1007/s10869-011-9247-0

Lim, V. K. G. & Teo, T. S. H.(2000). To work or not to work at home: An empirical investigation of factors affecting attitudes towards teleworking. *Journal of Managerial Psychology, 15*(5-6), 560-582. doi: 10.1108/02683940010373392

Lister, K. & Hamish, T. (2011). The state of telework in the U.S.: How individuals, businesses and government benefit. *Telework Research Network.* Retrieved from
http://www.workshifting.com/downloads/downloads/Telework-Trends-US.pdf

Lojeski, K. S. & Reilly, R. R. (2008). *Uniting the Virtual Workforce: Transforming Leadership and Innovation in the Globally Integrated.* New York: John Wiley & Sons.

Madsen, S. R. (2011). The benefits, challenges, and implications of teleworking: A literature review. *Culture & Religion Review Journal*, *2011*(1), 148-158.

Martínez-Sánchez, A., Pérez-Pérez, M., de-Luis-Carnicer, P. & Vela-Jiménez, M. J. (2008), Telework, human resource flexibility and firm performance. *New Technology, Work and Employment. 22*(3), 207-223. doi: 10.1111/j.1468-005X.2007.00195.x

McCloskey, D. W., & Igbaria, M. (2003). Does "Out of Sight" Mean "Out of Mind"? An Empirical Investigation of the Career Advancement Prospects of Telecommuters. *Information Resources Management Journal (IRMJ), 16*(2), 19-34. doi:10.4018/irmj.2003040102

Morganson, V. J., Major, D. A., Oborn, K .L. Verive, J. M. & Heelan, M. P. (2010) Comparing telework locations and traditional work arrangements: Differences in work-life balance support, job satisfaction, and inclusion. *Journal of Managerial Psychology, 25*(6), 578-595. doi: 10.1108/02683941011056941

Next generation telework: A literature review. (2011). Australia: Deloitte Access Economics Department of Broadband, Communications and the Digital Economy. Retrieved from http://www.nbn.gov.au/files/2012/02/Next_Generation_Telework-A_Literature_Review-July_20111.pdf

Nicholas, A. & Guzman, I. (2009). Is teleworking for millennials? Association for Computing Machinery SIGMIS Computer Personnel Research Proceedings: special interest group on management information system's 47th annual conference.197-208. Presented at University of Limerick, Ireland.

Nilles, J. (1996). *Managing telework: Strategies for managing the virtual workforce.* New York: John Wiley & Sons.

Noonan, M. C. & Glass, J .L. (2012).The hard truth about telecommuting. *Monthly Labor Review,* 38-45. Retrieved from http://www.bls.gov/opub/mlr/2012/06/art3full.pdf

Nurul Habib, K. M., Sasic, A., & Zaman, H. (2012). Investigating Telecommuting Considerations in the Context of Commuting Mode Choice. *International Journal of Sustainable Transportation*, *6*(6), 362-383. doi: 10.1080/15568318.2011.621014

Offstein, E. H. & Morowick, J. M. (2009). *Making telework work: Leading people and leveraging technology for high-impact results.* Boston: Davies-Black.

Powell, L. M. (2011). Teleworker's Security Risks Minimized with Informal Online Information Technology Communities of Practice. In I. Management Association (Ed.),

Global Business: Concepts, Methodologies, Tools and Applications (pp. 777-781). Hershey, PA: Business Science Reference. doi:10.4018/978-1-60960-587-2.ch317

Pyöriä, P. (2011). Managing telework: risks, fears and rules, *Management Research Review, 34(*4), 386-399. doi: 10.1108/01409171111117843

Rietveld, P. (2011). Telework and the transition to lower energy use in transport: On the relevance of rebound effects. *Environmental Innovation and Societal Transitions, 1*(1), 146-151. doi: 10.1016/j.eist.2011.03.002

Rosenberg, A. (2009). OPM announces new governmentwide telework policy. *Government Executive.* Retrieved from
http://www.govexec.com/story_page.cfm?filepath=/dailyfed/0409/042909ar1.htm

Rubin, B. A., & Spivack, A. J. (2012). Thinking Outside the Office: The Impact of Virtual Work on Creative Workers' Attitudes. In S. Long (Ed.), *Virtual Work and Human Interaction Research* (pp. 59-77). Hershey, PA: Information Science Reference. doi:10.4018/978-1-4666-0963-1.ch004

Scott, D. M., Dam, I., Páez, A., & Wilton, R. D. (2012). Investigating the effects of social influence on the choice to telework. *Environment & Planning A*, *44*(5), 1016-1031.

Shah, M. (2013). *Mobile working: Technologies and business strategies.* New York: Routledge.

Sofo, F. (2010). From Software to Team Ware: Virtual Teams and Online Learning Culture. In T. Dumova, & R. Fiordo (Eds.), *Handbook of Research on Social Interaction Technologies and Collaboration Software: Concepts and Trends* (pp. 121-130). Hershey, PA: Information Science Reference. doi:10.4018/978-1-60566-368-5.ch012

Star Workforce Solutions (2009). Trends in Telecommuting: Industry expansion and solutions for your business. Retrieved from
http://starworkforce.com/download/Telecommuting%20Trends.pdf

Taylor, C. (2012). Ethical dilemmas of teleworkers. The Industrialist. Retrieved from.
http://theindustrialists.me/2012/03/04/ethical-dilemmas-of-the-teleworker/

TELCOA: The Telework Coalition. Retrieved from http://www.telcoa.org/

Telework.gov (2013). Retrieved from http://www.telework.gov/

Troup, C., & Rose, J. (2012). Working from home: do formal or informal telework arrangements provide better work–family outcomes? *Community, Work & Family*, *15*(4), 471-486.

Ward, N. & Shabha, G. (2001). Teleworking: An assessment of socio-psychological factors, *Facilities, 19*(1/2) 61-71. doi: 10.1108/02632770110362811

Wheatley, D. (2012). Work-life balance, travel-to-work, and the dual career household. *Personnel Review, 41*(6), 813-831. doi: 10.1108/00483481211263764

KEY TERMS & DEFINITIONS

Affinity Distance: emotional separation between virtual team members who have no personal relationship.

ICT: information communications technology.

Knowledge Worker: researchers, planners, analysts and/or developers who acquire, manipulate, and analyze information.

Operational Distance: psychological gaps regarding workplace issues

Physical Distance: variances in space, time and environment.

Telework: Work done remotely from the office using some form of telecommunications; also referred to as telecommuting.

Virtual Distance: working and communicating mainly, or exclusively, through technology.