An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance

Grant, C. , Wallace, L.M. and Spurgeon, P.C.

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Introduction

Technology has changed the nature of work and provided opportunities to work from multiple locations, including the home. Forecasts for the growth in numbers of e-workers predicted that by 2012 there would be 1.2 trillion remote workers worldwide (Twentyman, 2010), while Nilles (2007), predicted 144 million e-workers across the Organisation for Economic Co-operation and Development (OECD) countries. The opportunity to work remotely is now provided by many organisations alongside other flexible working options, which can lead to savings for organisations (Lewis and Cooper, 2005). The ability to work remotely is now available through smart technologies and has lead to more than just home working initiatives for those with families. It has become an issue for many employees, with or without families, wishing to manage their work and life effectively.

Remote working using technology is seen as a way for organisations to offer flexibility and consider the well-being of staff, including their work-life balance, whilst reducing costs and improving productivity (Lewis & Cooper, 2005). Recruitment agencies report approximately 85 per cent of those seeking work indicate they would be more likely to stay with their employer if working flexibly

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was available (Twentyman, 2010). Furthermore, high ratings of job satisfaction have been found for those working remotely (Madsen, 2011). For example, Wheatley (2012) reports that home-based workers report high levels of satisfaction. This could be related to the flexibility of working times compared to more static office based hours and the freeing up of commuter time. Wheatley found that remote working can increase 'available' time for other activities, however, this study also found that any 'extra' time was not always spent on extra leisure activities, but filled with household chores, or other paid work, particularly for women. This research suggests that there are positive factors associated with remote working for both the employer and employee. However, it can be argued that time saved may, in some cases be redirected to more work as opposed to recuperation.

Research has also indicated there are negative effects associated with remote working. For example, whilst working remotely can reduce stress, it has been found that e-workers experience overlap between work and home lives thus reducing the restorative effects of home (Hartig *et al.*, 2007). As boundaries collapse this can lead to the blurring of work and non-working lives, working times and a lack of free time can then become a negotiation between employers and employees (Allvin *et al.*, 2011). Noonan and Glass (2012) report that whilst telecommuting can improve employee productivity and decrease absenteeism, aiding employee retention, it may not improve work-family conflicts. Even though there is growing awareness of the possible negative effects of remote working, this area of research and practice is still developing. Therefore, the purpose of

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this paper is to explore the way in which remote working impacts upon the three related research areas of job effectiveness, work-life balance, and well-being. This current study aims to provide a set of generalisable themes that would aid the future development of new scale in this area. The three research areas have been identified as key factors from the literature relating to issues for remote e-workers. These areas are discussed separately in the following sections. However, firstly, it is important to define 'e-working' for the purpose of this paper.

Definitions of e-working

Definitions of what constitutes remote working have been debated with no clear agreement on a specific term (Sullivan 2003; Madsen, 2011). For example, several studies describe remote working using telecommunications devices as e-working, teleworking and telecommuting (Morgan, 2004). The term 'e-worker' provides more flexibility in terms of differing locations, so for the purposes of this present study the term 'e-worker' was employed. The related definition adopted for an 'e-worker' was 'any form of substitution of information technologies (such as telecommunications and computers) for work-related travel: moving work to the workers instead of moving workers to the work' (Nilles, 2007 pg. 1). Nilles considers that 'e-working' emphasises the 'location independent aspect directly', whilst teleworking focuses more on 'travel substitution aspects' (Nilles 2007 pg. 1). This relates to work being completed anywhere and at anytime regardless of location and to the widening use of technology to aid flexible working practices.

The three primary related research areas:

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1. Job effectiveness

Job effectiveness can be defined as 'the evaluation of the results of an employee's job performance' (Jex, 1998). It has now been recognised that there are numerous benefits to employers who seek to improve job effectiveness and the productivity of employees through implementing remote working practices (Butler *et al.,* Wheatley 2012, Noonan and Glass 2012). These include increased job satisfaction of employees, a positive impact on productivity as measured by the quality and quantity of work produced, reduced geographic constraints on the available workforce, and a higher level of commitment by employees to the employer (Baruch, 2000; Morgan, 2004). These benefits also extend to the employee where working remotely can provide a means to balance work and non-work commitments, through flexible working. Previous studies have interviewed and surveyed remote e-workers regarding their views on the efficacy of e-working practices (e.g., Baruch, 2000; Sullivan and Lewis 2001). Findings from these studies indicate that key competencies are emerging, which may relate to improved job effectiveness, for example, self motivation, integrity, self confidence and good communication skills. Furthermore, remote working may have led to higher levels of autonomy for the e-worker and for some, lower stress levels but this may depend on a person's job role, control over workload and the level of trust afforded by their line manager (Karasek and Theorell, 1990). Line managing remote workers can present challenges for supervisors both in developing trust and a change to their working practices. For example, supervisors may need to alter their working practices and adjust to the differences associated with employees working off site. Dimitrova (2003) argued

that teleworkers with greater role autonomy had less supervision requirements as did those who already had a pre-existing face to face relationship with their supervisor. This study concluded that job context mediates the impact of telework and that control can be more effective with routine job roles such as sales but all teleworkers benefit from a trusting relationship with their supervisor. A study by Lautsch *et al.,* (2009) that reviewed supervisory practices reported that a 'helpful' and supportive environment was beneficial to remote e-workers. Increased frequent contact with supervisors was found to be helpful in engaging and enhancing motivation of the teleworkers. This study also found that advising telecommuters to retain some separation from work and home tasks should be encouraged to reduce work to family interference.

Kowalski and Swanson (2005) consider that there are several factors which are critical to the success of teleworking. These include management and supervisory support, having a formal policy, managerial training, and including the use of informal and formal communication skills. In turn, the employee requires support from the family and clearly defined work and family boundaries. This may require employee training in teleworking potentially to establish what the expectations are when they are remote e-working (Kowalski and Swanson, 2005). These expectations should be clearly defined, so that the psychological contract is understood (Morgan, 2004). Misunderstandings and misinterpretations of what is required from the e-worker can lead to a break in trust and dissatisfaction for both the employee and the employer (Kowalski and Swanson, 2005). However, Clear and Dickson (2005) found little evidence of

teleworking training programmes in their survey, indicating that senior managers may not fully realise the need for staff to become competent remote workers so they may achieve the full benefits from this style of working.

2. Well-being

Some of the adverse effects of teleworking have been linked with poor well-being (e.g., Hartig *et al.,* 2007; Mann and Holdsworth, 2003). There has been limited research on how remote working practices may impact on well-being. This is despite many organisations now emphasising the importance of working effectively with technology (Madsen 2011). The increased risk of musculoskeletal disorders are one of the leading causes of ill-health in the United Kingdom and are related to long hours sitting without appropriate breaks (Sang *et al.,* 2010). Much of the previous research in this area has focussed on improving work-life balance for individuals and consequently increasing productivity for employers (Baker *et al.,* 2007). For example, an early study by Duxbury *et al.,* (1992), looked at the effects of teleworking on work to family conflict, studying over 500 remote workers. The findings indicated that those who did not possess a computer at home work fewer hours than those who continued to work remotely on their own computer after-hours. For the latter group, this led to significantly longer work hours being completed. Longer working hours are not generally found to be ameliorated by teleworking, and that removing the usual work constraints of structured time to work can intensify work (Dimitrova, 2003). Furthermore, in a study by Hayman (2010) of 336 employees, it was reported

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that flexitime had greater benefits for reducing role overload and work-life balance issues than teleworking.

Studies in the last ten years have examined both the physiological and psychological outcomes for e-workers (e.g., Golden *et al.,* 2006, Hartig *et al.,* 2007, Lundberg and Lindfors 2002, Mann et al., 2000, Mann and Holdsworth 2003). Findings from these studies are mixed with evidence showing that the physiological aspects of e-working can be beneficial, including reduced blood pressure when working from home compared to working in the office. However, these benefits can be negated if work continues past normal working hours. Mann and Holdsworth (2003) interviewed 12 journalists who teleworked and found that there was decreased stress when compared to office based workers but also increased loneliness. These teleworkers also experienced increased irritability and negative emotions, such as worry. This was attributed to social isolation and being unable to share problems with colleagues (Mann and Holdsworth 2003).

Whilst teleworking can provide a means to reduce stress it can also lead to over-work. It has been found that remote e-workers may experience overlap between work and home, thus reducing the restorative effects of home (Hartig *et al.,* 2007). Hartig *et al.,* (2007 pp. 231) report in their study of 107 teleworkers that 'having a separate room for telework appeared to ameliorate spatial but not temporal or mental overlap of work and non-work life'. A possible problem of working at home means that the overlap caused by physically working at home

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can cause mental health related problems including over-work. For example, continuing to think about work may still remain after the computer has been switched off. Home is seen as a place of restoration and to mix work and home activities together in the same location may well have an impact on well-being. However, in a further study by Kossek *et al., (*2006) of teleworking professionals, they found that increased autonomy through teleworking resulted in a lower incidence of depression in women. Kossek *et al.,* (2006) consider that teleworking may provide women with the flexibility to control their work so they have the opportunity to be involved in both work and their family lives, giving a higher sense of well-being.

3. Work-life Balance

Remote access to work via technology has played a part in over-coming work-life balance issues for organisations wishing to retain skilled employees. This has been particularly effective for those individuals who need to consider family arrangements, for ill health, or to reduce commuting time to provide time for other activities. For some individuals remote working has provided a release from the restrictions of office based hours. However, there are negative impacts as shown by some studies into work-life balance, gender and teleworking (e.g., Hilbrecht *et al.,* 2008). These indicated that whilst teleworking provides the ability to combine the dual role of child care with teleworking, this resulted in very little time for personal leisure activities. Sullivan and Lewis (2001) in a series of interviews with remote workers and their co-residents (partners) found that perceptions between genders differed. Both genders reported a similar number of advantages to e-

working, however, the content differed. Women cited managing their household tasks and child care situations as primary advantages, whilst males cited having quality time to be with the family. Sullivan and Lewis (2001) indicated that females associate the home with paid work, whilst males considered working from home as 'being able to help out'. However, Maruyama *et al.* (2009) surveyed over 1500 teleworkers examining the effects of teleworking on work-life balance. Findings indicated that gender and having dependants were not significant effects but managing working hours was the most important ability to gain a positive work-life balance (Maruyama *et al.*, 2009).

It is important to consider that remote e-working is not just a work and family flexible working arrangement. Many organisations now expect employees to use remote based technology, such as smart phones and Blackberrys, to keep in touch with work both inside and outside of work time (Vernon 2005). This has been exacerbated by a global culture where work needs to be completed with business contacts across the world working different times, meaning that contact may be required at all times of day and night. Hislop and Axtell (2007) highlight the need for more research into the affects of working in differing remote locations, other than home. Remote technology provides ease of access to work, however, the effects of this on managing the boundaries between work and personal lives for e-working needs to be realised.

3.1 Managing boundaries, segmentation and integration

Technology provides a spatial link between the work and home environment. These boundaries can become blurred, with flexi-time and flexi-place working. Whilst e-working has been shown to have some positive effects, particularly for work-life balance, improvements in productivity and reduced stress levels, plus positive environmental impacts, there are some aspects which can be considered to be negative. Kossek *et al.,* (2006) examined a group of 245 professionals' use of teleworking and their perceptions of job control and boundary management strategies. They found those who separated the boundaries between work and family and had control over where and when they worked reported positive individual well-being. In a more recent study Kossek *et al.,* (2012) postulated a theory of boundary management that was person centred. Individuals were found to have differing styles when managing boundaries between work and family. Some participants reported a preference for integrating their work and family, others preferred separation, whilst some moved between styles. This type of research is important as it highlights aspects of how individuals can self manage and for supervisors to identify those most at risk.

Summary

Job effectiveness, well-being and work-life balance have been found to be key factors when exploring the impact of remote technology on individuals, supervisors and organisations. The three areas over-lap and are inter-related to some extent, in that job effectiveness can be impacted negatively and positively by both well-being, and work-life conflict. The positive aspects of remote working can be summarised as increased productivity, the ability to work flexibly and from

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different locations without the temporal restrictions of office based hours and in some cases reduced stress levels and greater well-being. Conversely, the negative effects include work intensification with access to technology 24/7 leading to long hours with little respite from work. Sitting behaviours may increase with the temptation to work for longer hours at the computer and cause physical problems. Remote e-working facilitates the blurring of boundaries between work and home, with some individuals preferring to integrate the two whilst others separating tasks. Remote working and more flexible technology may have helped to improve job effectiveness, flexibility and to some extent well-being, however, the more negative issues also need to be explored in greater detail.

Rationale for the study

The rationale for the study is based on gaining an in-depth understanding of the potentially increasing impact of remote technology on work-life balance, well-being and job effectiveness. In particular, the identification of generalisable themes that will provide an understanding of the related issues for e-workers, those managing e-workers and organisations employing them. This represents an innovative piece of research because although previous studies have looked at some areas they have not fully explored in-depth both the positive and negative psychological aspects and the relationships associated with remote e-working, job effectiveness, work-life balance, well-being and thus, the aims of the study were to:

- o Elicit the issues related to the impact of remote working on job effectiveness, work-life balance, and well-being for employees;

- o Identify a set of generalisable themes containing sub-themes that will support the future development of new methods of measuring the impact of remote working.

- o Identify practical implications for e-workers and their managers.

An inductive qualitative method was employed using semi-structured interviews. The research strategy employed was to relate the emerging themes to the three primary research areas of, job effectiveness, work-life balance, and well-being. The themes would be categorised under each primary theme according to the definitions of each primary theme elicited from the literature. Where themes emerged that related to all three primary research areas these would be labelled as 'over-arching' themes. Data would be analysed systematically by coding responses and collating these under common headings to create a new theme.

Method

Participants

The researcher approached organisations by email to ask if members of their e-working staff could be approached to take part in the interviews. The organisations were widely known to use e-working practices. Email was then used as the mechanism to enlist volunteers. Criteria for the selection of participants were based on length of experience as a remote e-worker (1-2 years) and proficiency using technology remotely to communicate with work. Participants were voluntary so their own self assessment and declaration of

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experience and abilities were relied upon for the study, although many of the participants were recommended to the interviewer by their line managers. Eleven participants volunteered and met the criteria. Participants selected were based in the United Kingdom, and recruited from five different organisations, across three sectors (private, public and voluntary). Five participants had one or more children and a further two looked after elderly dependants on a regular basis. Recruitment ceased when data saturation had been achieved and no new themes emerged.   A summary detailing the demographics and e-working background of the interviewees is provided below:

INSERT TABLE ONE HERE

Materials: Semi-structured Interview

The interview schedule was derived using the literature on work-life balance, e-working, job effectiveness and well-being. A semi-structured approach was used to ensure that the three research areas were covered and questions were formulated, which related work-life balance and remote e-working together. An open style of questioning technique was employed to compliment the semi-structured questions. The interviewer responded to any questions regarding clarification of questions either face to face or by email. A pilot of the interview refined the questions to ensure they retained clarity and focussed on all aspects of e-working. Two additional questions were added on e-working practices as a result of the pilot feedback. The interview was developed in a form which could be used both in person and remotely. The interview was developed in a form

which could be used for three types of interviews, face to face, by telephone or emailed to the interviewee and completed without the presence of the interviewer. The interview questions were split into seven sections:

- o *Section One*: 'About You', requested demographic details.
- o *Section Two:* 'Your role', requested a description of their role type.
- o *Section Three:* 'Access to Technology', included questions on how much time was spent e-working off site, e.g., How often do you work remotely, i.e., what type of technology and working practices do you use?'
- o *Section Four:* 'E-working practices', focussed on activities completed when remote working and their frequency.
- o *Section Five:* 'Measurement of e-working practices', including questions on measuring productivity.
- o *Section Six:* 'E-Work life' covered an exploration of the relationship between work-life balance and e-working, asking interviewees to review both positive and negative aspects.
- o *Section Seven: requested* any further comments.

Procedure

Interviewees were given a choice of completing the interview face to face, or remotely by telephone. The semi-structured interview was conducted by one independent researcher, usually lasting between 40 to 90 minutes. The interviewer asked for clarification to ensure that questions were understood and interpreted in the same way for all interviewees. All interviews were recorded and transcribed verbatim. An iterative process was used to inform further interviews based on analysis of the data on an ongoing basis. All data was coded according to Braun and Clark's (2006) thematic approach.

Data analysis

Thematic analysis was employed to explore the themes across the data collected related to the three research areas. The themes were elicited by searching for commonality, relationships and differences (Gibson and Brown, 2009). The data was read and re-read to ensure specific themes where captured. To ensure concordance, the results from the thematic analysis and the coding method were confirmed by Occupational Psychologists and experts in e-working and adjusted where necessary. This involved reading the transcripts and reviewing the codes, ensuring that they related to themes extracted. Any disagreements were resolved through discussion and realigning of the codes to the transcribed thematic data.

Results

The data was related to the three corresponding primary research areas of job effectiveness, work-life balance and well-being and ten themes emerged from the data. Figure 1. below provides the ten themes and illustrates the themes relating to each other under the primary research areas. The way the sub-themes were chosen as relating to a primary research area was from the content analysis of the themes. For example, those themes that related to how the work was completed, or measured related to the definition provided of job effectiveness gained from the literature. The same applied to the two further research areas. The themes of trust, individual differences, skills, competencies and adaptive behaviours related to all three primary research areas (shown as shaded in figure 1. below) and are discussed separately as 'overarching themes'. They were defined as 'overarching' themes through content analysis and their relationship to the definitions provided from the literature on the three primary themes.

[Figure 1 here]

Figure 1. Thematic diagram illustrating the relationship between the primary research areas and the ten emerging themes.

Those themes that overarch the three research areas are discussed first. These are followed by each of the primary research areas and their related themes.

Over-arching themes

Three themes were found to be related to all of the research topics of well-being, job effectiveness and work-life balance:

o   *Trust;*

o   *The ability to adapt behaviours;*

o   *Individual differences including skills and competencies.*

These themes are now discussed with reference to interview data.

Trust (10): Respondents indicated that joint goals and objectives needed to be communicated well in an electronic environment for a culture based on trust to work effectively: *'Some deliverables are tangible others not so, and that is where the fear factor comes in, with some cultures that don't want to go the e-working route, because there is a cloud of mis-trust'.* (Interview A2). One interviewee

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described her feelings of trust as being: *'you do not build as trusting a relationship as you might do if you were working together.'* (Interview A6). For one interviewee, whilst all work was completed through teleworking she was monitored very closely by IT systems, which checked her log-in times as well as the amount of work completed. She also had limited times when she could access the software. This differed considerably to the professional/managerial sub-group of e-workers who tended to have more control over when and how they worked remotely. For example, one public sector project manager indicated: *'You feel like your own boss, you can manage time yourself.'* (Interview A4). These demands are psychological in terms of adjusting to a different psychological contract engaged with employees, involving trust that the work will be completed both to the quality expected and in the timescales required.

Individual differences, skills and competencies (8): Remote e-working can be challenging to continue work when there are other distractions: *I'll do it later mentality' and then not do it'*. (Interview A3). Individual differences and motivation can play a part in the success or otherwise of remote e-working. Motivation can be difficult for some remote home workers. *'I enjoy coming into the office more than staying at home…I've found that in the past I have been slightly lazy at times, stick on the TV.'* (Interview A1). The other extreme was also found to be present, that is, too much motivation to work remotely outside of normal working hours and not knowing when to stop.   Several interviewees stated they had become "addicted" to switching on the computer and working in the evening, for

example: *'I can be on the computer at 2am, this is not good for sleep.'* (Interview A4).

Adaptive behaviours (9): Adapting behaviours to achieve effective remote working emerged as a strong theme from the research. The interviewees had been remote working for some time and so had developed their skills and behaviours to manage the overlap between work and home, including planning and scheduling work in advance, writing "to do" lists and planning breaks and social contact: *'The smart phone is left on and I can see emails constantly but I don't always respond straight away…. I don't do 24/7 like I thought I had to.'* (Interview A5). Another interviewee reported that *'I'm very good at setting boundaries. I used to be worse but now that I live with my partner I am stricter. I have had to change my working patterns.'* (Interview A3). Family, social and leisure time also needed to be considered and the interviewees indicated that planning all of these activities ensured that a balance could be maintained: *'My young children understand that mum has to work at home sometimes and they have adapted to this working pattern. They know I'm working and they leave the room to watch TV.'* (Interview A4). This finding also highlights that there can be interference from family whilst working from home and that this 'dual tasking' may affect concentration unless effectively managed by the e-worker. Most interviewees responded in the same way indicating their priority would be work and would not put family first unless a specific family crisis arose or the demand had been anticipated. Work culture can impact on the number of hours expected to be worked leading to long hours working both in and out of the office becoming

the norm, so work would immediately take priority over any other commitments. In response to these norms, adaptability was seen by the interviewees as important to changing working practices, managing their work-life integration and well-being, otherwise the ability to manage remote working and non work issues together could become overwhelming.

Next each primary research area is discussed with the related emerging themes.

Primary research area: Job effectiveness

The constituent parts related to improving job effectiveness for remote workers that emerged from the thematic analysis, related to working practices, self autonomy to manage own workload, the ability to make decisions remotely, productivity, performance and measurement.

E-Working practices (1): Interviewees identified specific working practices and types of technology which were seen to aid remote working productivity. These included smart phones, internet, video conferencing, and webinars, all of which provided a means to limit travel by working with customers remotely or from home. However, problems were identified with technology that could impair performance. For example, the use of teleconferences in replacing face to face meetings, meant potentially missing important social or body language cues: *'the more vociferous [people] on a teleconference are harder to shut up, no visual signals to use, for example, a kick under the table. You do need a very strong chair to run teleconferences.'* (Interview A6).

Role autonomy (4): Autonomy within work roles and level of responsibility within the organisation were found to be important factors for interviewees. People whose roles differed in responsibility also had different levels of access and flexibility when using remote working facilities. The flexibility of access varied significantly between clerical/administrative roles compared to managerial/professional workers. Less senior employees had reduced access to different types of technology and were restricted when they could use the work-related software, for example, between specific allocated time slots. This may explain why those with less autonomy indicated that they might prefer to work in the office. Conversely, those at a professional or managerial level had access to the full range of technology within their role. This enabled them to work as and when they required, increasing the flexibility of their working hours. Remote working was also found to add to pressure on more operational roles within an organisation, leading to an increase in working hours: *'it is also about your role in an organisation, the lower down you are potentially the more responsible for keeping it going. There is a temptation to work more.'* (Interview A2). Also, those interviewees who managed a team resulted in the decision to limit home working to a certain number of days per week, noting that they needed to be visible for staff purposes.

Decision making (6): Most interviewees indicated that remote working did not affect the quality of decision making: *'any decisions I have to make regarding my work are not affected in any way by e-working. This is because the*

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communication link between my home and office is outstanding, along with very efficient feedback and a constant link during my working hours.' (Interview A7). Several interviewees indicated that remote working provided greater access to real-time information allowing decision making to be made outside of normal work hours. The quality of this type of decision making could be questionable, given the time of day and whether or not other parties have been adequately consulted, for example, a participant questioned whether *'a midnight decision is a good one'.* (Interview A5). Decision making using technology requires slightly different working practices, such as scheduling video conferences with remote e-workers. It emerged as being important to utilise good communication skills, so that all relevant stakeholders can be involved. One participant indicated that *'the decisions would have to be the same both on and off site'* (Interview A10).

Productivity, measurement and performance (7): Most of the respondents to this present study reported their productivity increased, particularly when e-working from home. Factors which were associated with increased productivity included working quietly without interruption, ensuring work was completed on time, concentration on writing large documents, avoidance of social processes in the office and the problems associated with working in an open plan office such as noise and lack of privacy. Less positive aspects were also cited. For example, one interviewee indicated they found e-working productive, but only up to a point: *'Increases up to the point of burnout, when it decreases. My measures of productivity are key deliverables around client relationship management, process deliverables and writing assignments such as creative tasks, which are most*

impacted when exhausted.' (Interview A8). Other interviewees felt more productive in a work environment, indicating that sitting at their usual desk was more productive. *'I would say decreases when I'm away [from the office]...it's a psychological or mental thing, you're at work sitting down at your desk, whereas you are in your comfort zone [at home].'* (Interview A1). A similar response was reported by a second participant: *'Actually when I'm e-working I'm not actually as productive as when I'm at my desk. If I'm checking my email at the airport I probably won't be able to be as productive as when at my desk.'* (Interview A11). Overall, organisations differed in the extent of measurement and the use of actual measures of remote working. Respondents reported their remote working was measured formally in several ways, for example, by regular surveys, self report measures and by the number of emails completed in a day. For those who reported that their organisation measured remote working, there were differences in monitoring according to seniority. Participants in managerial or executive roles measured themselves and reported back to the organisation. Whereas, those in less senior roles were managed directly, via specific work completed and sometimes accessed on-line by direct access to their computer systems. But several respondents reported that their organisations did not measure e-working nor recognise e-working practices, for example: *'no my organisation does not officially recognise e-working or teleworking, this is only at the managers' discretion and as such does not measure e-working practices.'* (Interview A3).

Primary research area: Work-life balance

This theme draws together the way in which work and non-working lives interact together and the associated issues. The theme of managing boundaries related both to this topic area and to well-being.

Work-life integration (2): All interviewees indicated that remote working had improved their ability to work flexibly and subsequently the time spent away from the office: *'Very useful in improving work and I am a great believer of flexi-time…, I have no worries about doing some work at home on a Sunday if it is going to pay dividends at work the following day. I can fit my life style in with my private life.'* (Interview A2). Interviewees also noted remote working was important to them in managing their 'other' non-work lives including relationships: *'…[I've] been very successful in improving my relationships too. Good to work out of the office and get back home, yes you are still working but you are with your family.'* (Interview A3). Further, interviewees indicated that remote working helped improve efficiency due to working in a more globalised economy both for employers and themselves, for example, being able to work late but from home: *'email is helpful because I don't have to stay in the office to communicate with colleagues in different time zones, I often have teleconferences in the evening which are best conducted from home.'* (Interview A8). Remote working was seen to have a positive effect for both the employer and the employee, particularly in difficult circumstances: *'No lost days from work working off site and being flexible meant I was able to deal with family emergencies and bereavement. This has had a very positive effect on my life.'* (Interview A10). The majority of examples cited (12 out of 17) related to improvements in interviewees' personal lives

through working either at home or utilising e-working technology, releasing time to be spent with families, reductions in time spent commuting, reduced stress, avoidance of extra child-care requirements such as taking less time off as annual leave, the ability to flex working times, doing the household chores at less busy times. Other examples included having time for personal or domestic duties such as letting the plumber in or attending doctors' appointments during the day. They reported they had less time off sick and for some, the ability to e-work provided opportunities to work more paid hours.

Primary research area: Well-being

Communication and support from colleagues emerged as two critical success factors to ensure successful remote working and to balance the psychological aspects of well-being. The themes of building relationships and interacting, including where boundaries could be crossed over, where both important themes seen to affect psychological well-being.

Managing boundaries (5) – this also relates to the primary research area of work-life balance: The collapsing of boundaries between work and private lives and the impact being able to work 24 hours a day, seven days a week has on other family members and health was a common theme: *'…the blur between work and home is badly affected. I work 12-14 hour days as a norm and it is impacting my well-being. Clients can always reach me…… I don't think I'm as*

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productive because I'm so exhausted.' (Interview A8). Interviewees showed signs of over-working to relieve work pressures and indicated the need to manage home and work boundaries carefully: *'Too long working into the night albeit that can be negative against your life, this depends on whether this is enabling you to catch up on work. This then relieves stress as you have the ability to react quicker.'* (Interview A5). Habitual accessing of work remotely, ignoring family commitments, preferring to work instead of engage with the family, not knowing when to stop working for respite so that it damages health, including logging onto to work past normal hours and over-working are examples from the interviews of where remote working can outweigh the benefits of flexibility. *'You can become addicted to it, it is there so you just start work…'* (Interview A4). This can limit the amount of time left for non work and respite from work activities. *'I have been advised that I need to draw strict boundaries to get my life back.'* (Interview 8).

Social interaction (3): Building relationships and maintaining communication channels both at work with colleagues and relationships outside of work emerged as a common theme for maintaining the psychological well-being of the interviewees. One interviewee indicated that they would prefer to be in the office to maintain social contact: *'I'm probably a person who would enjoy coming more into the office rather than staying at home.'* (Interview A1). Being able to manage social interaction when away from the office and missing social cues when remote working were also raised. An alternative view is that other family members may be around to provide support: *'some say they miss social company but I don't feel isolated. The husband is at home.'* (Interview A10).

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Discussion

The findings from this study have enabled us to establish some of the psychological factors that are impacted by remote e-working. This current study has explored these factors using three related primary research areas of work-life balance, well-being and job effectiveness. Ten themes emerged from the data, associated with these areas presenting a wider range of findings than in previous studies. The themes identified offer a unique insight into how the issues affecting remote e-workers can be categorised and where similarities and differences can be seen. For example the over-arching themes relate to all three research areas and could, therefore, underpin a new scale in this area. The research offers practical insights for remote e-workers and their managers, In particular those areas that enhance and detract from effective e-working. Table two below summarises these findings.

INSERT TABLE TWO HERE

In summary, the key areas that emerged from the analysis included the need for remote workers to adapt their styles and correspondingly that managers should also consider the way in which they supervise those working remotely. This ties in with previous research (Dimitrova, 2003), whereby supervisors of remote workers have been found to successfully adapt their working practices to create a supportive environment through ensuring that communication is structured. Work-life balance improved for many of the interviewees in this study, although

many also referred to the problems associated with constant access to technology, including the inability to switch off entirely from work. This is supported by previous research into the lack of time to recuperate when working remotely when boundaries are not clear (Hartig *et al.,* 2007). Dimitrova (2003) also argued that e-working comes with a 'price tag' and that whilst flexibility can be increased, the workload may also increase. This was supported in the present study by one interviewee who indicated that over-work was almost an expectation by their employer.

Individual differences where found to impact on job effectiveness in the present study, with either too much or a lack of motivation, both causing problems for two remote workers. Recent research (Kossek *et al.*, 2012) indicates that there may be preferences for individuals when managing their boundaries between work and non working lives. These strategies could also be found in the present study with varying activities according to work and home requirements, although most interviewees indicated that work would take preference over non-work issues. Managers were also found to be important for e-worker effectiveness. Morgan (2004) indicates that teleworking has benefits but also challenges for organisations and these need to be addressed. Managing the psychological contract may be the most important aspect of working remotely for many, ensuring that expectations are managed on both sides.

This present study has identified a set of generalisable themes that illustrate the overlaps in the literature, as well as the differences. Analysis has also provided

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both the benefits to e-working but also identified some of the disadvantages. Through the analysis of the interviews, themes have emerged that can be used to support the development of dimensions for a new scale in this area. Within the themes and from an analysis of the literature scale items can be deduced that will assist in the measurement of e-working in the context of work-life balance, well-being and job effectiveness.

Implications for e-workers

Remote workers in the current study clearly showed they could be highly competent at managing their e-working though adaptive behaviours. Positive insights were identified into how personal relationships could be improved through remote working and the identification of specific areas of individual differences, skills and competencies. The current study also found that over-working whilst remote working could affect health and one participant indicated it may induce burn-out. Further, remote e-working was found to be important to the interviewees in managing their relationships outside of work. There is little research available on the impact of remote working on personal relationships, although some research focuses on the social isolation aspect of working at home or away on business. For example, Mann *et al.* (2000) looked at the psychosocial aspects of home working and found that 57% of those teleworking felt some kind of social isolation. The current research found both positive and negative aspects to the social isolation experienced in remote e-working. For example, having a quiet private space to work with no interruptions was seen as an advantage. However, it also supported the study by Mann *et al.* (2000) which

found that the negative aspects related to a lack of human and social contact. Social networking internet sites have opened up on-line access to socialising and whilst these were not considered in this research it is likely they will continue to become popular as a remote means to interact with others especially if office based socialisation diminishes through remote working. New technologies can provide greater access to visual communication can be important mechanisms to maintain contact. For example, in this current study it was reported as useful to have face to face access to enhance building relationships, this can now be done through smart phones which provide a camera. This could allow for the interpretation of social cues more easily.

These findings have some implications for the development of supportive practices for e-workers, which we consider next.

Implications for managers of e-workers

This current study identified some clear implications for the management of e-workers. Building trust with the line manager was a strong theme and when this was in place many of the e-workers in this current study had a good relationship with their manager and felt they performed well in their job. Whilst this degree of autonomy was found at higher levels in the present study, building support with line managers could improve job effectiveness for all levels in the organisation. From the current study it was found that e-workers shared many similar competencies, high levels of motivation, were well organised and able to work independently. These are supported by Baruch's (2000) study which asked managers to list the key remote working competencies. However, the current

study found difficulties in managing e-workers when work was has no time limits or boundaries, work commitments led to over-working and ultimately to poor well-being including stress and burn out. There are many reasons for overworking and previous literature has described these as continuing to work when sick, isolation and a lack of management support (Mann *et al.*, 2000). The implications for managers of e-workers are that whilst working through illness keeps the employee working in the short term, longer term this can lead to more severe absences from work.

Not being able to "switch off" and overwork were reported by e-workers in the current study as significant negative factors. Theories that relate to motivation and internal stressors (over-commitment) when related to external stressors, (e.g., high work demands) can lead to high effort but not always high reward (Chimel, 2000). This is particularly relevant in remote working as work demands and the effort required to complete the work may not be as obvious as they would be if carried out in the office (e.g., staying late in the office) and could, therefore, be overlooked by line managers. Interviewees in the present study highlighted the need for self management and communication with peers and line managers. Conversely, individuals who are not motivated by working remotely may under perform and require strong external motivators (e.g., financial rewards) to complete the work as would be expected when under closer supervision in the office.

Practical implications

A summary of the practical implications from the findings of this study are provided below:

1. Exemplar e-workers show adaptive behaviours and skills to manage e-working effectively, these could shared with new or less experienced e-workers to give benefit to organisations.

2. Over-working may be an issue for some e-workers. Employers could mediate this problem but ensuring that clear goals are and expectations for managing the workload are discussed with their supervisor.

3. Well-being needs to be considered by those managing e-workers, discussion of social isolation and the building of relationships may need to be mediated by some planned face to face contact with team members. This would also enhance trust between supervisors and co-workers.

4. New technologies can be utilised to increase social contact, but as in 3. above some face to face contact would be recommended, especially for those new or less experienced e-workers.

5. Managers of e-workers should consider that whilst 'normal' office rules also apply to those working remotely, that communication should be enhanced for e-workers, ensuring that checks are made on workload, well-being and performance.

6. The psychological contract between the manager and the e-worker needs to be clearly defined to increase the benefits and reduce the negative aspects of e-working.

Limitations of the study

The current study was limited in generalisability by the small qualitative sample. However, Gibson and Brown (2009) indicate that it is important that the sample is representative of the topic being studied. Remote e-workers for this current study self-selected by years of experience and remote working capability for their specific qualities and experiences. Interviews were in-depth providing a richness to the data collected.

Conclusions

The current research was novel in that it explored the psychological and practical implications of technology and identified a set of generalisable themes that can be used to inform the study of the psychological aspects of remote e-working. The research has raised some clear implications for e-workers and their managers. E-workers should not be allowed to become 'invisible workers', they may be very skilled at their job but they do still require support to be effective remote workers. It is recommended that managers communicate regularly with remote workers, not just about work matters but also psychological issues such as overwork, managing work and home boundaries and their stress levels. This current study found that trust, working practices, skills and competencies were important but so were considering the mental health issues of e-workers. Assessing their ability to e-work and to provide training for e-workers and their managers should be considered by organisations as part of any move towards a remote workforce.

The recommended future direction for research is to utilise the identified themes to develop a means of measuring, by self report, each of the three primary and the ten related themes. A survey method using a large sample of e-workers could be employed to test the validity and generalisability of the findings from the current study. It would be further beneficial to consider how the competencies for e-working can be further developed to support an individual's quality of work and non-working life. The impact of remote on mental health should also be further investigated in order to develop preventative and protective practices.

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Table one: Demographic details of the interviewees

Interview reference	Gender	Age Group	Marital Status	Job Role*	Contracted working hours	Hours spent e-working remotely
A1	Male	22-35	Single	Professional	Full-time	1 day per month
A2	Male	46-55	Co-habiting	Managerial	Full-time	2-3 days pre week
A3	Male	22-35	Single	Professional	Full-time	2 days a month and evenings
A4	Female	46-55	Married	Administrative	Full-time	2 days per week
A5	Female	36-45	Married	Managerial	Full-time	3 days per week flexibly
A6	Female	46-55	Co-habiting	Managerial	Part-time	All contracted hours
A7	Female	36-45	Married	Administrative	Part-time	All contracted hours
A8	Female	22-35	Single	Professional	Full-time	All the time including evenings
A9	Female	56-65	Not given	Administrative	Part-time	2 days per week
A10	Male	22-35	Single	Professional	Full-time	A day per week
A11	Female	46-55	Not given	Administrative	Part-time	All contracted hours

*Notes:

'Professional' roles: related to high level roles in the organisation that were part of team but not managing team members. These roles indicated high levels of autonomy to manage their own workload.
Managerial' roles: related to those roles responsible for managing employees.
'Administrative' roles: related to lower level roles in the organisation who were being line managed, with little or no autonomy to manage their own workload.

Table Two: Enhancing and detracting factors identified from the research areas and themes

Primary Research Areas	Enhancing	Detracting
Job Effectiveness	Productivity increased. Allows decision making to take place at different times of day. Increased of autonomy.	Relationship building can be difficult. Monitoring from a distance requires good communication. Restricted by the technology available.
Work-life Balance	Work and non-working lives can be integrated. Home relationships can improve by increased contact. Remote working and flexible hours can provide the means to interact across different time zones.	Boundaries between work and non-work may blur. There may be little time for respite from work. Temptation to stay working for longer due to ease of access to work.
Well-being	Fewer days lost through absenteeism. Working from home can relieve stress from travel and child-care issues.	Social interaction may be limited to family and local friends. Office grapevine may be missed and important information missed. Sitting behaviours may increase.
Overarching areas	Being ones 'own boss' increases a sense of confidence and ability. Technology provides a means to deliver work and liaise with colleagues and customers remotely. Saving on time spent travelling. Experienced e-workers adapted their working practices to meet remote working requirements.	Face to face contact is easier for building relationships. Those who are highly motivated may over-work and become 'addicted' to stay switched on. Those who are not motivated may under-work. Late emails and working culture that promotes 'non-stop' working can be exasperated by remote working.

Primary Research Areas: Job Effectiveness   Work-life balance   Well-being

E-Working practices (1)	Work-life integration (2)	Social interaction (3)

Remote E-Working

Role Autonomy (4)

Managing Boundaries (5)

Decision Making (6)

Productivity, measurement and performance (7)

Individual differences, skills and competences (8) and Adaptive Behaviours (9)

Trust (10)

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