PART 1

Uses of Technology for Business Purposes: Background and Consequences

"Spillover" Work via Technology: Organizational Antecedents and Health Impacts

1.1. What is spillover work?

When we talk about "spillover" work, the first thing we think of is the number of hours of overtime worked per week, compared to what is set out in the employment contract. With work mediated by information and communication technology (ICT), many companies are promoting, or even encouraging, flexible spaces and flexible working times (Taskin 2006; Peters *et al*. 2009; Allen *et al*. 2013; Grant *et al*. 2013). Asynchronous remote working means that the employee can work outside the premises of their company (space flexibility – we obviously think of home-based teleworking, or coworking spaces). But asynchronous remote working also means that the employees can choose their own working hours: working within a flexible organization might suit them better than working traditional office hours (9 am to 5 pm), since it allows them to juggle different constraints or preferences, especially family ones (starting work in the morning before taking the children to school, leaving the office earlier, going shopping outside of "rush hour", resuming work in the evening, in a quiet place, after the children have gone to bed, in order to "make up" their hours, etc.). In other words, with the new work organizations made possible by technology, the notion of spillover can no longer be understood solely in terms of a

Chapter written by Catherine Hellemans and Émilie Vayre.

traditional working schedule carried out on the company's premises. The "calculation" of working time with regard to the employment contract is thus complicated objectively, as well as subjectively, as we will see, on the basis of Clark's (2000) work on boundary theory, and the preference for a particular mode of managing these boundaries (Kreiner 2006; Kossek *et al.* 2012).

1.1.1. *Objective parameters of spillover: location, duration, frequency and intensity of spillover*

Location: let us start with two scenarios: either (i) the employee works their regular hours at their workplace or (ii) the employee teleworks their contracted hours. In the first case, spillover beyond the prescribed working time may be anchored at the workplace, or outside the workplace, probably most often on public transport or at home. The situation is relatively straightforward and the spillover easy to identify if the working time and hours are prescribed in the employment contract, in line with standard practice. In the second case, things become more complex. With remote working, the autonomy to manage one's own schedule is generally much greater: the employee can often work the prescribed hours on a more flexible schedule, or even completely on their own, the nature and content of the work permitting (more on this in section 1.1.3 on controlling spillover). Thus, whether there is spillover or not no longer pertains to the time of day. In order to identify this spillover, we must count the working time over the day in relation to breaks, or even interruptions, of varying lengths. Indeed, it is conceivable that an employee may still be working in the evening, because they have interrupted their work for several hours during the day to look after their children or to take advantage of a leisure activity outside of traditional social time. This would be a "false spillover" from the point of view of the number of contractual working hours.

Duration: the duration of the spillover could range from a few minutes to several hours per week or even per day. It is obvious that this duration will be decisive in assessing the extent of the spillover and its impact on health. We can only refer here to the extreme situation of "karoshi", which Uehata reported 17 cases of in 1978 at the 51st annual meeting of the Japanese Occupational Health Association. The term is used in cases of death or permanent disability, following a stroke or ischemic heart attack caused by "overwork". The term karoshi has been used in Japan as a socio-medical

term in the context of workers' compensation: the recognition of the link between the death and the working conditions there depends mainly on the actual length of time worked during the week preceding the accident. The criterion used in Japan is a working time of 24 hours (three times that of a normal working day) on the day preceding the accident or 16 hours per day (twice the normal time) during the entire preceding week. Iwasaki *et al.* (2006) explain that the number of people working 60 hours a week and more increased rapidly between 1975 and 1988 (when the karoshi was discovered), reaching nearly 8 million (in Japan), and that while in the 1990s, the number declined to 6 million, probably due to the economic recession in Japan, the number has tended to increase again since the early 2000s.

Frequency: the frequency of spillover refers to the number of times (regardless of duration) that the employee works outside the contractual time of their employment and thus exceeds the number they are contractually required to work per day, week or month. It goes without saying that mobile technologies, such as smartphones, tablets or laptops, facilitate a regular and even continuous connection, which comes to be expected by the company. The frequency can be very infrequent or almost constant; it can be counted from work spillover in the morning before working hours, in the evening after contractual hours, at weekends, or even on holidays and vacations (Box 1.1). It is highly likely that the higher the frequency of spillover, the greater the impact on worker health. It should be noted that the criteria used in Japan for the recognition of karoshi as an occupational disease take into account, as we have seen, not only its duration (24 hours a day), but also its frequency (16 hours of work per 24 hours during all the days of the previous week).

Intensity: the intensity of the spillover is much more subjective and open to debate. We consider that intensity is the sum of the efforts made during the spillover work. A light intensity would be, for example, "just" checking emails outside of contractual hours, without processing them, and without continuing to think about them afterward (we will return to this aspect later with the notion of rumination). A stronger intensity would consist of reading and processing the emails, for example, which may involve a high degree of attention, reflection, a search for information, necessary many contacts, etc. Of course, the more complex the emails to be managed, the higher the intensity. Another example of a high intensity of spillover would be the

drafting and finalization of a complex report under heavy time constraints. We can therefore see that the intensity will depend on the nature and quantity of the work to be done in relation to the worker's skills and the time they are willing to devote to this spillover work.

We surveyed 157 people with higher education, working in different sectors: private and commercial (23%), education (12%), medical, paramedical and psychological care (14%), public administration (24%), other miscellaneous (27%).

In response to the question "Do you use technology for professional purposes outside of your workplace?":

– 60.1% say they use their smartphone in the morning or evening, before or after their normal time of work;

– 46.8% say they use their smartphone on the weekend;

– 44.9% say they use it on their days off.

Laptop usage figures are also high:

– 52.5% say they use their laptop in the morning or evening, before or after their normal time of work;

– 48.7% say they use their laptop at the weekend;

– 36.7% say they use it on their days off.

To the question "What kind of tools do you use on these technologies for professional reasons outside your workplace?":

– communication tools (email, videoconferencing, etc.) for 72.2% of smartphone users and for 65.8% of laptop users;

– Web-based information search tools (search engine) for 42.4% of smartphone users and 56.3% of laptop users;

– office tools (word processing, spreadsheet, etc.) for 10.8% of smartphone users and 63.9% of laptop users;

– tools specific to my work activity for 10.1% of smartphone users and for 44.9% of laptop users.

Box 1.1. *Use of technologies when spillover work:*
different uses for different purposes

1.1.2. *Subjective spillover and the meaning of spillover: boundary theory and preferences*

So far, we have considered spillover from an objective and quantitative point of view, in terms of exceeding the number of working hours stipulated in the employment contract. Another way of looking at spillover is to understand it in a more qualitative way, in terms of exchanges (balance and imbalances), with reference to both professional and personal areas of life. Spillover is present when one domain of life encroaches on another domain of life, whether it is work that encroaches on private life, or private life that encroaches on work, whether this spillover is agreeable (positive spillover) or, on the contrary, disagreeable (negative spillover).

1.1.2.1. *The theory of boundaries*

Clark's (2000) boundary theory is a theory about the balance between work and family domains. Work and family can be seen as two separate domains of life because (for employees, probably less so for the self-employed) they traditionally take place at different times and in different places, each with its own rules, roles and expected behavior. However, whether we like it or not, the boundaries between private and professional life are not watertight: we can attend to aspects of our private life during working hours, such as making an appointment with a heating engineer, worrying about the children getting home safely from school or organizing an outing with friends, just as we can attend to work-related aspects during private time, for example, by checking work-related emails at home in the evening after we have left work, or by finishing reading or writing a report. According to this theory, people cross the boundary between the domains of work and family on a daily basis (Clark 2000), as the boundaries are characterized by flexibility. The availability of mobile technologies obviously makes these borders more porous.

Flexibility is to be understood both in terms of the malleability of roles related to a life domain and the permeability of roles related to a life domain (Ashforth *et al*. 2000). Both terms refer to observable and unobservable flexibilities: malleability refers to the ability of one role domain to expand or contract to meet the demands of another role domain. This is the case, for example, when a nurse who is taking time off to look after her children (mother's role) agrees to come back to work (nurse's role) to respond to an emergency that has arisen from a temporary lack of staff. Permeability refers to the fact that a person is physically involved in one area but

psychologically involved in another. To use the same example, this would apply if the nurse refused to return to work but could not stop thinking about her work and her patients while continuing to care for her children during her time off – or if the nurse agreed to return to work but continued to think about her children and the different activities she could offer them when she was back with them.

We can therefore argue that malleability determines the spillover, while permeability qualifies it. In this way, we can understand how information and communication technologies affect the malleability of the borders between domains of life, since it is possible to work from home in the evening with a laptop or a smartphone. But we can also understand how these technologies modify the permeability of boundaries, since their continuous accessibility, or even constant notifications, make it more difficult to concentrate on the task at hand (belonging to another life domain than the one that the incoming message notifications relate to).

However, one question remains to be addressed, which relates to the preference for this flexibility. Does the individual prefer to have zero flexibility and totally segment their spheres of life, or do they prefer to have a certain degree of flexibility between their spheres of life, and even a kind of harmonious total integration?

1.1.2.2. *Segmentor or integrator?*

If ICT facilitates, or even brings about, a spatial, temporal and psychological overlap between work and family roles (Fritz *et al*. 2010), how does the individual position themselves in relation to these overlaps? Before the availability of mobile technologies, it was auspicious to say that a balanced life was achieved when life domains were separated; nowadays, the debate remains open: teleworking at home during standard working hours allows individuals to manage some of their private life constraints, such as putting on a load of washing, popping to the convenience store, going shopping outside of busy hours, making a start on the evening meal, etc., which is often appreciated. In a similar way, checking your emails at the end of the day during private time allows you to answer them calmly, become aware of potential problems for the next day and anticipate them in order to reduce their severity, or even to arrive at work later the next morning.

People who prefer to separate life domains are called "segmentors". In contrast, people who prefer to integrate them are called "integrators".

Between these two extremes, some researchers have proposed more nuanced typologies, taking into account the "direction" of the interruptions from one life domain to another in particular. Thus, Kossek *et al.* (2012) distinguish six functioning types. "Work warriors" only let their private life be interrupted by work. "Family guardians", on the contrary, only let their work be interrupted by their private life. Two types of integrators also exist: the "Overwhelmed reactors" who let their two spheres interrupt each other regularly without control, and the "Fusion lovers" who allow it while controlling it. The authors also mention a type of moderate integrator, who tends to accept moderate interruptions between work and private life domains, excluding, it seems, the family domain: this type has been called the "Non-work eclectics". Finally, there are the "Dividers".

These personal preferences are influenced by the constraints and imperatives of the various domains of life which, through the ubiquity made possible by mobile technologies, are present constantly and simultaneously. Thus, it is not unlikely that an individual's "preferences" may not actually be preferences at the outset, but rather refer to "acquired" modes of operation, set up to adapt to the constraints and imperatives of the various spheres of life. The question then becomes one of control by the individual over the constraints and imperatives associated with the different spheres of life.

1.1.3. *Spillover control: myself and others*

If the connection through technologies is potentially permanent, the individual can also decide to make himself partially or temporarily inaccessible, by disconnecting, by disabling automatic notifications or by deciding quite simply not to respond to them, at least for a while. The spillover will therefore depend on the control exercised by the worker over the solicitations he receives… or that he creates himself. Needless to say that it is not always easy to be in agreement with oneself, or even to live with oneself. Nor is it uncommon to observe a rather rapid abandonment of our own rules of life and our good resolutions. Moreover, our freedom and free will are dependent on our commitments and our willingness to establish harmonious relationships with those around us. Decisions are therefore not easy, and conflicts are likely until we find a *modus vivendi* acceptable to the majority.

The situation of teleworking, enabled by technology, certainly exacerbates this. In teleworking, where it is commonly accepted that the boundaries between areas of life are blurred, self-imposed rules are crucial to finding one's way through the "fog". Getting up at a specific time, taking a shower before starting work, dressing in something other than a tracksuit for work, taking breaks – but not too long – respecting one's schedule, not stopping work too early or too late, creating an activity or ritual to symbolically transition from work to personal time (putting on music, going for a little walk, changing clothes, taking off one's shoes, having a glass of wine, etc.). These rules, which are not always easy to respect, come into contact with the expectations and rules of others around us: the people who share our lives, friends, as well as colleagues, our hierarchical superior (who is supposed to represent the rules of the organization), and even clients. If, as Bandura's (1977) social learning theory explains, people tend to imitate the behavior of those around them, and more strongly of those with whom they identify through emotional attachment, then it is likely that we will adopt behaviors similar to those of our partner or even our colleagues. But it is still necessary that each other's constraints and imperatives be sufficiently transparent and similar; the opposite would complicate things further.

Understandably, the control we will have over our objective and subjective spillover will also depend on the control that others put in place in their own professional and private lives, as well as in ours via interdependence.

As you can imagine, the constraints imposed by the organization that employs us will determine our spillover.

1.2. Organizational background of spillover work via technologies

Companies tend to value speed, even immediacy, which they consider necessary and adaptive to the market. The cult of urgency present in today's economic world has been noted by many authors (Aubert and de Gaulejac 2003; Felio 2014). Information and communication technologies have made it possible to concretely actualize this cult of urgency: the ubiquity and immediacy of sending, receiving and, quite often, responding. ICT can be used and made available on a continuous basis, but should this always be the expectation?

Let us analyze some characteristics of the organization or work that might encourage spillover work, based on the work of researchers (Thomée *et al.* 2010; Kinnunen *et al.* 2011; Sonnentag 2012).

The workload and the level of responsibility at work are certainly the main factors conducive to spillover work. The level of responsibility is often linked to the number of employees for whom one is responsible, and this leads to management work beyond the primary tasks of the function, which are often carried out as spillover (management of emails, preparation of meetings, development of a team strategy, etc.).

The expected quality of work, for example, requiring evening or weekend work, perhaps outside the noisy and busy environment of the workplace.

The nature of the activities during the working day: if the main activities of the day are meetings, training or appointments (managers, trainers, teachers, therapists, estate agents, recruitment consultants, to mention just a few examples), or traveling (trade representatives), with time-consuming journeys, then it is very likely that managing emails, writing reports, preparing for the next day, etc., will spill over to the end of the day.

The physical atmosphere of the work environment: too much noise, linked to the number of people working nearby and the soundproofing of the premises (think of *open spaces*, shared offices, etc.), encourage individuals to carry out certain tasks requiring high levels of concentration via technology.

The amount of leeway given to the worker by the organization: tight deadlines and/or rigid schedules will increase the likelihood of spillover work via technology.

Support and mutual aid between workers, which makes it possible to compensate for a temporary workload that is too heavy for one worker and alleviates its spillover.

The expected availability outside normal working hours, from the boss, colleagues, third parties (customers, suppliers, etc.), often a function of the company culture, but linked to the very nature of the work: a self-employed person (doctor, plumber, etc.) will in all likelihood be more available, even outside normal working hours, given their professional responsibilities, their

links with customers and the desire (or need) to win their loyalty. If the person works with colleagues or clients on the other side of the globe, the notion of spillover becomes more complex: what is classed as spillover in the European time zone will not necessarily be spillover in the US or China.

Organizational strategies put in place for training or career development. Let us take the example of e-training: if its cost is covered by the company, can the worker take it during his working day? Furthermore, what is the limit between "essential" training recommended by the organization, which should logically take place during the working day and "voluntary" training required for career development?

The resources, particularly material resources, available to workers. While technical equipment is generally not a problem in large organizations, this is not necessarily the case in smaller organizations, particularly in the non-profit sector: there is no or not enough equipment available (computer, connection, printer) that is good enough or efficient enough for certain activities.

And, of course, the rules regarding connection and disconnection, whether they are absent, present but little known, present but not respected, present, or respected but little appreciated.

A study by Kreiner (2006) looked at the interaction between boundary management preferences (preference for segmentation vs. integration) and the degree of flexibility present in the organization, reflecting on the fit or mismatch between what the individual prefers and what is possible within the organization. It showed that people who prefer their life domains to be more integrated than not, but without this being offered in the organization (e.g. no possibility of teleworking, no possibility of connecting to the server outside normal working hours), experienced less conflict between life domains, but more stress in other domains related to work or the private sphere (because, in all probability, the constraints in the life domains are there, and are not easy to manage without the possibility of flexibility). The results of this study also showed that having neutral attitudes in terms of preferences was more beneficial for well-being than having strong preferences for segmentation, even when these preferences and the possibilities of flexibility offered by the company were well aligned.

Workers face different types of demands in the course of their work, which can have a significant impact in terms of spillover.

Thus, on the basis of the same survey of respondents, as in Box 1.1:

– 72.2% say they have a lot of responsibility at work;

– 66.4% feel that in recent years their work has become increasingly demanding;

– 52.9% say they are often forced to work overtime;

– 44.3% feel they have to be available outside normal working hours because of the specific nature of their work;

– 28.6% report that their colleagues expect them to be available for their work outside of their working hours;

– 35.7% believe that their superiors expect them to be available for their work outside of their working hours.

When the data is cross-tabulated, we can note that the greater the workload, the higher the use of ICT outside of working hours; and the more employees are expected to be available outside of working hours, the higher their use of ICT outside of working hours.
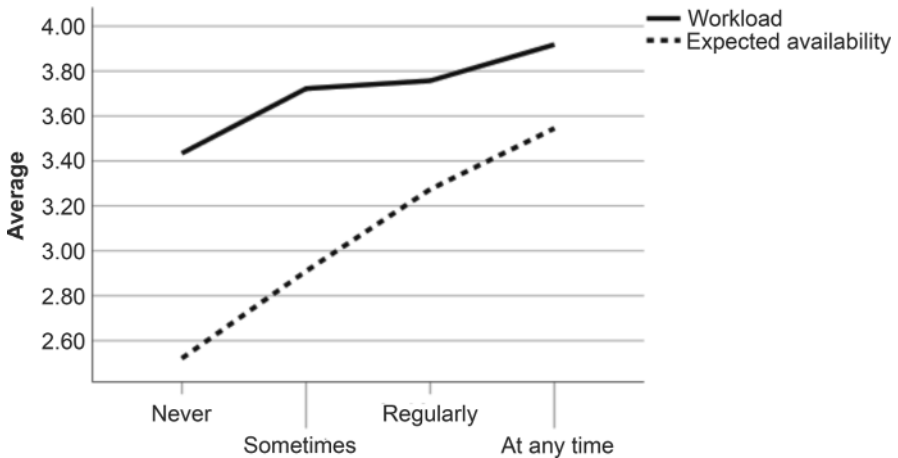

Figure 1.1. *Workload and expected availability as a function of the frequency of business-related ICT use outside of working hours*

Box 1.2. *Work demands as a spillover factor through technology*

1.3. The health implications of spillover work via technologies

While research points to the broad advantages of using technology, including outside the workplace (asynchronous communication facilitating time management, flexibility, autonomy, better concentration, better performance, etc.), it is rather the limitations, or even the inconveniences, that are highlighted in scientific studies, even though it may be refuted that most research is aimed at sounding the alarm or identifying problematic situations to promote the prevention of health risks.

Let us therefore look at the impact of spillover, via technologies, on health. "Health" is understood here in the broad sense of the term, which, much like the World Health Organization's definition, includes not only the physical aspects but also the psychological and social aspects of health. We will not focus our attention on the physical problems specific to the use of screens for many hours, such as eyestrain or neck pain, nor on questions relating to the ergonomics of the "workstation" when conducting spillover work via technologies (ergonomics of the office chair at home, or even the living room sofa!). Our attention will be focused on the impact of spillover on psychological health, and in particular on the issues of hyperconnection and addiction to connection, the need for recovery and burnout.

1.3.1. *From hyperconnection to connection addiction*

The expressions continuous connection, telepressure, hyperconnection or *mobiquity* are used to describe situations in which there is a high reliance on ICT. These situations of hyperconnection raise many questions about their consequences in terms of stress, burnout and disruption of private life. Hyperconnection is generally studied among executives because they, by the very nature of their work and their responsibilities, are more affected by the phenomenon. Bobillier Chaumon *et al.* (2018) have, moreover, highlighted a feeling of dependence on ICT among executives. Vayre and Vonthron (2019) have shown, for their part, that overflow work via technologies reinforced cyberaddiction and eroded the work commitment of executives (especially their motivation).

Organizations seem to have understood the spiral phenomenon between the widespread use of ICT, particularly emails, the growing sense of urgency to respond and the demand for immediate answers. But do they consider

their share of responsibility for the impact of ICT spillover on their employees?

Drawing a line between the normal and the pathological is a constant demand and challenge for psychologists. The very definition of work addiction remains a topic of debate in scientific studies. The first definitions focused on the number of hours worked, but these definitions were deemed insufficient, particularly with regard to the phenomenon of presenteeism.

The definition of work addiction, a behavioral, "product-free" addiction, has thus been supplemented by contributions from the definition of "product-based" addiction (addiction to psychoactive substances such as alcohol, amphetamines, nicotine, sedatives, etc.), and in particular the irrepressible desire for the behavior, the abandonment of other activities for the benefit of the behavior in question, and a feeling of withdrawal, anxiety or discomfort if the behavior is interrupted.

Spence and Robbins (1992) proposed a definition of "true workaholics" (as opposed to "enthusiastic workers", for example) based on three dimensions: a high level of involvement in work, a strong feeling that we must work all the time and a low level of pleasure derived from work.

Technology addiction could thus be defined in a similar way by the high use of technology, a feeling that we always (permanently) have to use technology, and a low level of enjoyment derived from technology.

One way of distinguishing between connection, hyperconnection and addiction to technology would be as follows: connection is a neutral term, hyperconnection is defined solely by the strong connection, regardless of whether someone feels as if they always have to be connected and whether they derive little pleasure from doing so, and addiction would necessarily include all three aspects – going online a lot, feeling strongly that we need to connect and deriving little pleasure from doing so.

Box 1.3. *What are the boundaries between connection, hyperconnection and addiction?*

Connection, hyperconnection and addiction to connection need to be distinguished. As we have understood from the presentation of the organizational characteristics that lead to overflow via technology, hyperconnection and addiction cannot be reduced to the voluntary behavior of employees who are "addicted" to work (Prost and Zouinar 2015). If the

scientific debates on the genesis of work addiction remain open (question of personality? education? organizational constraints?), and although a right to disconnect has existed for several years in France[1] and Belgium[2], work addiction and hyperconnection are often still valued by companies. However, their consequences are not negligible, for the individual, their family, their colleagues and the company in general. Moreover, studies show that most people who are "addicted" to work deny that they are addicted to work; they deny it to some extent, until health problems (related to lack of sleep, unbalanced diet, unhealthy lifestyle) and relationship problems with those around them become apparent.

The relationship problems may concern private life: conflict with one's partner, insufficient investment in children's learning, non-effective participation (from total absence to presence conditioned by permanent connection) in family gatherings or among friends, etc. They can also affect professional life: the scientific literature highlights the fact that "addicts" delegate little and poorly, do not trust their colleagues, prefer to work alone, etc. Understanding this phenomenon should lead companies to stop promoting hyperconnection and "workaholics".

1.3.2. *Spillover, the need for recovery and burnout*

The high level of availability and demands during a working day, coupled with the presence of mobile technologies by our side after our working day, decrease the likelihood and effectiveness of quality psychological detachment from work (Sonnentag 2012). The late use of computer or smart phone devices stops workers from relaxing and therefore leads to difficulties in falling asleep, especially due to the excessive stimulation caused by such extensive use of new technologies (Thomée *et al.* 2010). Being consistently busy with work after hours leads to high levels of fatigue and sleep disturbances, because the need for recovery has not been sufficiently satisfied (Demerouti *et al.* 2014). Yet, sleep is crucial because it restores the physical and psychological resources that have been depleted over the course of day-to-day activities (Barber and Jenkins 2014).

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1 Law No. 2016-1088 of August 8, 2016 on labor, the modernization of social dialogue and the securing of career paths, known as the "Labor Law" or "El Khomri Law".

2 Law of March 26, 2018 on strengthening economic growth and social cohesion; see section 2.2.

Being psychologically detached from work refers both to concrete work activities – for example, not checking work emails in the evening – and to not thinking about work-related problems – not ruminating about work in the evening and thus managing to temporarily put aside thoughts about, for example, the difficulty of a task or a conflict with a colleague (Cropley and Millward Purvis 2003; Sonnentag 2012).

It is arguably necessary to distinguish between the spillover effect linked to two types of heavy workload: chronic heavy workloads and one-off heavy workloads, which (unlike the former) last for a short period of time (one to several days). In the case of heavy workloads, the worker will no doubt try to continue working in the evening to catch up on the backlog that has built up or even to anticipate the big demands of the next day – in this case, their psychological detachment will be very limited, if not absent. But working in spillover in these situations can have beneficial effects for the worker: less anxiety about the next day's workload, being able to fall asleep with peace of mind and with the feeling that the job is done. In the case of a heavy one-time workload, the spillover and low level of psychological detachment should only be temporary, and, ultimately, this should not be very problematic if, once the period of heavy workload is over, the worker manages to stop working in spillover mode and psychologically detach himself from the work during his own time.

On the other hand, if the heavy workload is chronic, even permanent, and the spillover work becomes chronic, then the lack of psychological detachment will be regular, even permanent. The need for recuperation during private time will not be satisfied for long periods, and sleep quality will then necessarily be poor for long periods as well. The worker will start the next working day in a poor state and will then have to make additional efforts to complete the tasks prescribed to him/her (Thomée *et al*. 2010). This sequencing is what will likely precipitate more significant health problems, such as burnout.

If recovery is lacking, employees risk burnout. Some authors are now including the use of information and communication technologies in their definition of burnout: they see it as the result of constant or repeated emotional pressure associated with intense involvement with people or work over long periods of time, exacerbated by information and communication technologies, which allow users to perform several tasks at once (Leung 2011).

Still based on the same study as described in Boxes 1.1 and 1.2, we found that (i) the more employees use ICT after working hours, the more rumination they experience (see Figure 1.2), and that (ii) sleep quality is best when workers just occasionally use ICT after working hours.

Thus, it is clear that the use of ICT outside of working hours can be beneficial only if it remains temporary and limited.
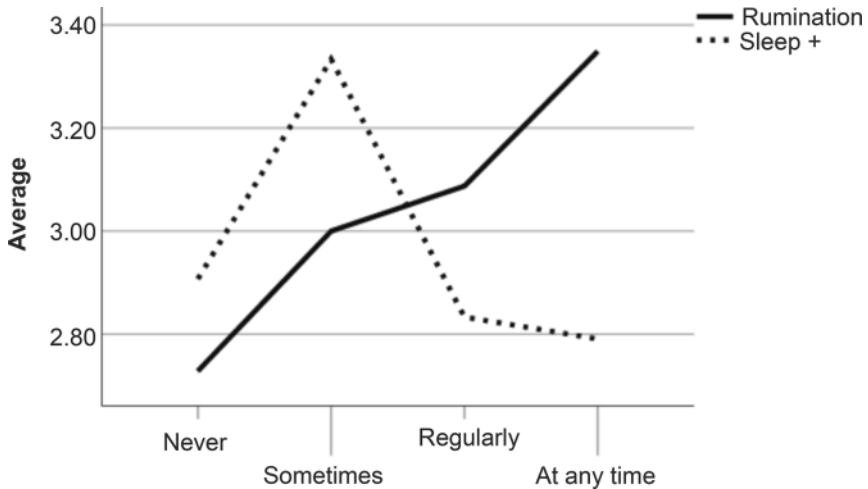

Figure 1.2. *Rumination and sleep quality as a function of the frequency of work-related ICT use outside of work hours*

Box 1.4. *ICT, rumination and well-being*

Some authors have focused on the moderating role of recovery in the link between some work characteristics (work time, work demand) and well-being. They found that recovery could protect against work-related exhaustion and thus played an important role in well-being at work (Siltaloppi *et al*. 2009). This result was confirmed in a longitudinal study – conducted over a period of one year: lack of psychological detachment from work (which is a facet of the lack of recovery) increases emotional exhaustion (Sonnentag *et al*. 2010). This is because employees who remain mentally attached to the various tasks of their job by ruminating are unable to relax. This inability to relax is amplified when people are already close to exhaustion: a downward spiral of "lack of detachment – poor sleep quality –

exhaustion" is set in motion and it is increasingly difficult to get out (Thomée *et al*. 2010).

1.4. Avenues of reflection and practical perspectives

The challenge is managing to take time out regularly, as often as possible, to recuperate during private time. What form can this take? Various strategies are possible (Sonnentag and Fritz 2007; Sonnentag *et al*. 2008; Mojza *et al*. 2010):

– Relaxing activities: not necessarily relaxation, but an activity that allows us to relax, according to our tastes and preferences. It could be taking a good bath, preparing a good meal (cutting vegetables can be a very relaxing activity for some), going for a walk, listening to music, reading a good book, watching a movie, etc.

– Investing in an activity that brings us something personally, that makes us grow or allows us to be proud of ourselves: taking language courses, drawing, photography, etc.

– Activities with one's circle of friends, family, social network, community.

Clearly, the idea is to allow our mind not to worry about work for a while: in other words, to detach ourselves psychologically from work.

Within organizations, current questions about the quality of life, the boundary between work and private life and work–life balance are accompanied by reflections on the "right to disconnect" (whether it concerns free time or the working day). This new right covers a right to isolation, peace and quiet, the possibility of taking time out and not being required to respond immediately to a phone call or an email, for example (Vayre and Vonthron 2019). Over the past 10 years, some large groups or companies, including those in France and Belgium, have developed charters for the proper use of technology and the Internet, and in particular email, during or outside working hours. However, organizational considerations or measures are still not widespread in French or Belgian companies. When they do exist, they are often limited to regulating usage, whereas the right to disconnect simultaneously raises the issue of workload regulation and the "right to rest".

Beyond the legal aspects, the ability to disconnect from work and to delimit work and non-work is a real skill associated with the rigorous organization and control of the time–spaces devoted to the various activities (Vayre and Pignault 2014). This skill should be supported and developed, since workers are increasingly obliged to achieve results (rather than means) and are no longer structured by a temporal framework (but by objectives to be achieved). As a result, they are more responsible than before for the spatial and temporal delimitation of their work activity.

As for prevention programs relating to the use of technology, they are beginning to be developed and applied, but remain very much in the minority. They are often based on informing employers and employees of the risks incurred by the unsupervised and controlled use of smartphones, email, social networks, etc. However, unlike in the United States, the problematic use of technologies, or even cyberaddiction, is still rarely taken seriously in France or in Belgium: there are not enough support structures and prevention is almost non-existent. As the use of technology and communication tools is widely valued and encouraged in Western societies, it is easy to understand that cyberaddiction is more socially accepted than other addictions that occur in professional environments. Moreover, the current organizational contexts and requirements, which advocate efficiency at all costs, permanent availability, and the setting of very (or even unrealistically) high objectives, contribute to conveying a positive image of the employee addicted to technology and work and are likely to be at the origin of compulsive attitudes and behaviors with regard to technology and/or work (Vayre and Vonthron 2019).

In view of these findings, it is important to continue and strengthen the discussions and approaches already in place within work organizations (and, where this is not the case, to initiate dialogue within companies) in order to establish internal policies on uses outside negotiated working hours and to draw up rules and mechanisms for regulating these uses, which protect employees from their harmful effects. The knowledge gained from empirical work in this field can be used to inform discussions and decisions within work organizations and to raise awareness among decision-makers, managers and executives of the potentially harmful effects of overflow work via ICT.

1.5. References

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