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Time Porosity in the Digital Age: ICTs, Boundary Management, and the Well-being of Managers in Algeria

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Abstract:

This research has focused on the relationship between Information and Communications Technology (ICT) with respect to the ability of managers to establish boundaries between their professional and personal lives. The qualitative based study utilized semi-structured interviews in its collection, and subsequently has provided evidence that while there were benefits offered by digital tools in relation to improved planning, these same digital tools have created a previously insurmountable level of information overload, These phenomena have contributed to a perceptible level of "time porosity" whereby a greater proportion of an individual's professional actions can now take place during the time which was formerly reserved for the individual's personal life, resulting in a significant increase in stress levels. This research demonstrates clearly that organizations should establish frameworks through which digital disconnection can be organized, for the purposes of maintaining sustainable productivity outcomes into the future, particularly in the area of digital productivity.

Keywords: Time Management, Work-Life Balance, Time Porosity, Digital Disconnection

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1. INTRODUCTION

Information and communication technologies (ICT) offer executives extensive possibilities in terms of data processing and communication, in line with the needs of the organization. In this respect, they seem to be increasingly establishing themselves, at first glance, as a complement or even a prerequisite for any transformation of companies seeking to gain flexibility.

Their ability to facilitate cross-functional cooperation is not limited to optimizing communication: they are fully integrated into the production and decision-making system, whether it be the internal functioning of the company or what is sometimes referred to as the "extended enterprise." The management of industrial organizations today is based on coordination between the different parts of the company—business lines and functions. However, diversification and the desynchronization of social rhythms are constantly complicating this management of time.

Several factors contribute to this: demographic changes (longer life expectancy, the end of the linear education/working life/retirement model), technological changes (particularly ICT), and above all, the profound transformation of work and forms of employment. The reduction in working hours over the course of a professional career, coupled with the integration of ICT in human resources management, raises a fundamental question: do these tools represent real progress, or simply a technological means of transition?

2. Issues

The study of ICT use in professional organizations involves taking into account the intrinsic characteristics of the tool, existing user practices, the conditions under which the activity itself is carried out, and the nature of the activity. We can say that ICT use changes the way any activity is carried out. Indeed, this form of mediated work has different organizational and communicational characteristics that differ from those usually found in a "traditional" professional activity, i.e., one involving face-to-face work. It is therefore essential to understand the extent to which the use of ICT transforms the individual and collective organization of a multifaceted activity.

Technological advances influence the way we work in many ways, from the execution of tasks (shaped by the possibilities of automation and digitization) to the means available to employers to monitor, control, and evaluate work, but also, increasingly, working hours and locations. Technological advances can have many benefits in terms of work flexibility and work-life balance (Murphy & Ryan, 2020). However, we are seeing growing unease, particularly among employee representatives, as the boundary between working hours and non-work activities becomes increasingly blurred.

In many cases, rather than bringing balance between professional and personal activities, technologies have significantly increased the proportion of professional activities, leading to increased stress and other negative health effects for workers who are expected to be "always available." Many employees are under pressure, either

directly because of employers' expectations or because of their workload. They are therefore required to be available or perform work tasks during their free time. Technological developments, particularly advances in work email, have exacerbated this situation (O'Sullivan, 2018).

The distinction between work and personal life is becoming increasingly blurred in today's world of work. In the face of sociocultural, legal, and financial challenges, it is essential to manage this reality to ensure optimal social and economic performance. Research on executives' work has mainly focused on their professional lives, often neglecting other areas of their lives.

However, each executive balances their life by adjusting the permeability between their different areas of life, in particular by regulating the integration of personal and professional life (Le Goff, 1977).

Time management also influences the ability to develop and maintain social relationships with colleagues. Furthermore, simultaneous changes in family and professional life have accentuated the challenges of balancing the different spheres of life.

In just a few decades, with the rise of information and communication technologies (ICT), work has increasingly moved outside the company, blurring the boundary between private and professional life. These changes define new ways of working and new ways of organizing time, reflecting a break with the historical process of

developing regulations on working time (Supiot, 2000a). These transformations have given rise to new ways of working and a reorganization of time, marking a turning point in the evolution of standards and regulations related to working time (Supiot, 2000b).

ICT therefore requires proactive risk management from the moment it is introduced, not only because of the prevention obligations it imposes, but also because of its constant evolution and its effects on the development of practices. They must be designed in such a way that they do not hinder organizations. Due to their particularly individualizing nature, these technologies offer managers numerous possibilities for processing information and managing communications, depending on the organization. The balance between work and other aspects of life is now a major challenge for managers and human resources departments.

We therefore suggest broadening the concept of time porosity, which refers to the phenomenon of overlap and interaction between personal and professional time, by linking it to the excessive use of technology.

Based on these elements, we focused on the challenges of time management in the digital age, particularly with regard to the various dimensions of human resources management, focusing mainly on the category of corporate executives, as they are more exposed to this phenomenon. With this in mind, two main questions underpin our research:

- *How is the integration of information and communication*

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technologies (ICT) transforming time management in modern organizations?

- *How do communication overload and the need for constant availability brought about by ICT impact the personal lives of corporate managers?*

2.1 Research Objectives

✓ Understand how digital tools (AI, email, instant messaging, teleworking) are redefining the boundaries between professional and private life.

✓ Identify the consequences of hyperconnectivity (stress, decreased productivity) among executives at Cevital.

✓ Analyze the role of the balance between work time and non-work time in the ICT era within the agri-food industry.

✓ Determine whether the Algerian company attaches importance to the balance between managers' work and non-work time.

✓ Demonstrate the role of the balance between these two types of time.

✓ Analyze the reality of social time.

✓ Provide a theoretical and practical framework for the healthy use of ICT, preserving the work-life balance.

2.2 Hypotheses

In the context of our research, we put forward the following two hypotheses:

H1: ICT enables better planning and organization of tasks, thereby reducing wasted time.

H2: The intensive use of Information and Communication Technologies (ICT) in companies has led to increasing porosity between the professional and private spheres and increased stress at work.

3. Literature Review

3.1 Definition of Key Concepts

Time Management

Since we are short on time, it is normal to want to acquire new skills in order to better meet the demands of the world in which we live. Time management has become “an essential skill, a must” (Comtois, 2006). Today, in the literature, we often hear about ‘mastery’ rather than “management” of time. According to Le Saget (1992), the word “mastery” implies “the existence of an art of time, a skill patiently developed, enriched by the lessons of experience, and which gradually constitutes a new way of working” (cited in Covey, n.d.).

The porosity of time

The issue of the porosity of time raises legal questions. An

initial characterization of the porosity of time is provided by French labor law, which distinguishes between working time and non-working time through the concept of actual work. It should be noted that the three criteria for defining actual work are: the existence of a relationship of subordination to the employer; the work has been ordered by the employer; the employee is at the disposal of their employer.

The porosity of time characterizes situations in which personal and professional time overlap. From a labor law perspective, these are situations in which one or two of the criteria for defining actual work are met, but not all three. The concept of the porosity of time therefore refers to situations that are legally problematic from a theoretical or practical point of view. For example, overtime does not pose any problems in theory (it is working time). But in practice, the question of free choice remains unresolved given the intense pressures and formal and informal constraints on managers. While the introduction of the fixed daily rate has resolved a number of legal difficulties, not all of them have been resolved in practice (Genin, 2007).

Definition of work-life balance

The issue of work-life balance in HRM concerns the relationship between work and non-work, and more specifically between work and family. Work-life balance is based on the fact that "commitment to work is facilitated by the experiences, skills, and opportunities developed at home. “ Furthermore, several different definitions of

work-life balance are given in the literature: while some authors define work-family balance as ”the extent to which people are both committed to and satisfied with their family and professional roles," others refer to “facilitating working parents in combining their professional and family activities while fulfilling the obligations associated with each,” and for Grzywacz and Carlson, work-life balance represents "the fulfillment of professional and family role expectations that are negotiated and shared between the individual and their partners in the areas of work and family " (Zahra, n.d.).

Working time

Working time can be defined as the measurement, by clock, of a defined and paid activity. It is the time devoted to the production of goods or services, delimited by a schedule, and is assessed in relation to two concepts: the legal working time and the collective working schedule. The legal working time is currently set at 40 hours per week, and only the collective work schedule applies to all employees of a company. It allows the setting of the time frame within which employees work (start and end of working hours) and the pace of work (Alain, 2005).

Time outside of work

In contrast to professional life, this is time devoted to personal development, family, and social engagement. Non-working time therefore directly encompasses family life. If employees cannot separate their family life from their work life, the company provides

them with certain measures to help them balance their family and professional lives. We will see that companies on the one hand and employees on the other try to manage non-working time in their own way (Theeven, 2001).

Information and communication technologies(ICT)

Information and communication technologies, commonly referred to as ICT, are a wide range of tools and resources used in businesses and by the general public. These tools are designed to produce, transform, or exchange information using electronic components. ICT includes hardware such as computers, cell phones, wired networks, and the software that complements them. Networks, whether physical or virtual, are also considered ICT, as they enable communication and information sharing between different users. Embedded computing systems are also often classified as ICT, although their functions are not always related to information. However, robotics occupies a special place because its purpose is to act, even though it makes extensive use of ICT to function. In general, ICT is considered to be the hardware and software part of a company's information system (IS). The IS is responsible for acquiring, processing, and storing information that is useful to the organization. It also includes personnel, data, and procedures that enable the entire system to be organized and managed. ICT is therefore essential to the proper functioning of a company's IS and has a significant impact on the company's performance (Benabdeslam & Boukrif, 2020).

3.2 Fundamental Principles of Time Management

Prioritize tasks: to focus on those that have the greatest impact. Task prioritization: one of the key principles of time management is capacity.

A/The Eisenhower Matrix: created by President Dwight Eisenhower, this matrix classifies tasks according to their importance and urgency:

Urgent & important: to be dealt with immediately (e.g., imminent deadline)

Important but not urgent: to be planned (e.g., long-term projects)

Neither urgent nor important: to be eliminated (e.g., unnecessary distractions) (Covey, n.d., inspired by Eisenhower).

B / Pareto's law (80/20): this principle states that 80% of results come from 20% of efforts: applied to time management, this means identifying the 20% of tasks that have the greatest impact and avoiding spreading yourself too thin on secondary tasks (Koch, n.d.).

• *SMART objectives:* objectives must be specific, measurable, achievable, realistic, and time-bound to be effective (Juan & Pareto, n.d.).

Planning and organization

A / Laws of time:

• Parkinson's Law: a task always takes as much time as is available for its completion; set strict deadlines.

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• Hofstadter's Law: a task always takes longer than expected.

B / Planning techniques:

• Calendar and to-do lists: daily and weekly planning.

• GTD (Getting Things Done) method: capture, clarify, organize, refresh, take action (Allen, n.d.).

Managing concentration and interruptions

• Pomodoro Technique: work in 25-minute cycles with 5-minute breaks.

•Eliminate distractions: notifications, multitasking, work environment.

Time Management Concepts

Planning and prioritization: it is essential to structure your days and prioritize your tasks. Several methods exist:

- Urgent and important: to be done immediately.
- Important but not urgent: to be planned.
- Urgent but not important: to be eliminated.

The ABCD method: assign a letter to tasks based on their importance.

- A: essential, must be done as a priority.
- B: important but not essential.
- C: optional, can wait.
- D: can be delegated.

- E: can be eliminated.

Managing interruptions and distractions: interruptions (calls, notifications, unnecessary meetings) disrupt productivity. To limit them:

- Apply the 90-minute concentration rule: work in uninterrupted sessions.
- Use the Pomodoro method: 25 minutes of intense work followed by a 5-minute break.
- Turn off notifications and block out time slots dedicated to important tasks.

Effective delegation: delegating frees up time for tasks with higher added value:

- Apply the 70% rule: if someone else can do a task 70% as well as you can, delegate it.
- Use Pareto's law (80/20): 20% of tasks generate 80% of results, so focus on those 20%.

Optimizing time using Parkinson's Law: this law states that “the more time we have to complete a task, the longer we take to do it.

- Solution: set shorter deadlines and use time blocking (reserve fixed time slots for each activity).

Work-life balance: good time management also includes taking rest and leisure into account:

- Plan breaks: to avoid cognitive overload.
- Set limits (fixed working hours, no emails in the evening).
- Practice digital disconnection to promote concentration and well-being.

Evaluation and continuous improvement: it is essential to regularly analyze your time management:

- Use a logbook or to-do list to see where your time is going.
- Test different methods and adjust according to what works best.
- Adopt a kaizen (continuous improvement) mindset to gradually adjust your habits.

4. Time Management Models and Theories

4.1 ABC Model

The ABC model is based on three fundamental ideas that can be broadly explained as follows:

A. Awareness: every second and every moment can be an opportunity if we are aware of its importance. The activities to be carried out in a day can be grouped into four levels/quadrants.

The first tasks to be done are those that are important and urgent. The second tasks to be done are important but not urgent. The third tasks to be done are urgent but not important. The fourth tasks to be done are neither important nor urgent.

B. Believe: Once a person is aware of time and its value and importance to their purpose in life, they are halfway to success. Focusing on and following the four quadrants will create the habit of doing things on time and with confidence.

C. Pursuit: Certain tools or techniques are necessary to put awareness and belief into practice. The continued use of time management tools and techniques will bring success in personal and professional life (Chwdhuy, 2013).

4.2 The Pareto Principle

The 80-20 rule, the Pareto principle, comes from the Italian economist and sociologist Vilfredo Pareto (1848-1923). The 80-20 rule can be used in many aspects of business organization and management. This theory offers a quick and easy way to clearly understand what is important and what is not required, a principle known as the 80/20 rule.

1. It is necessary to identify the 20% that is considered vital, which would likely account for at least 80% of productivity, performance, efficiency, etc.

2. This 20% should be retained and nothing else, unless it serves a crucial purpose.

3. It should then be tested for effectiveness and implications of the reduced scope/deliverable.

4. Reference should then be made to aspects of change management

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and project management as deemed appropriate.

Simply put, the 80-20 principle states that 20% of activities will account for 80% of results. Each task may take the same amount of time to complete, but doing one or two important tasks will contribute five or ten times more value than any of the others. Productive people always discipline themselves to start with the most important task assigned to them. They force themselves to finish the important things first in all circumstances. 20% of important tasks generate 80% of results, while 80% of secondary tasks generate only 20% (Reh, 2018).

4.3 Covey's time management grid

Covey's time management grid is an effective method of organizing priorities, consisting of four quadrants (Covey, 2013).

- Quadrant I: Urgent and Important (Crisis activities, pressing problems).

• Quadrant II: Not Urgent but Important (Planning, development, prevention).

• Quadrant III: Urgent but Not Important (Interruptions, certain meetings, enjoyable activities).

• Quadrant IV: Not Urgent and Not Important (Distractions, trivial activities).

- Quadrant II is considered the heart of effective management because it focuses on important but non-urgent activities that

enable prevention and long-term development.

5.Trends Transforming the Boundaries Between Work and Personal Life

Five trends in the nature of work are transforming work-life relationships, requiring greater attention to effective self-management of work-life boundaries (Kossek, 2016):

5.1 Boundaryless: The proliferation of mobile communication devices and social media has made work more portable, spreading it across more hours of the day and facilitating work during personal time and space.

5.2 Personalization of work life: Organizations offer a menu of flexibility options, allowing employees to customize their schedules and work locations to match their preferences and life situations.

5.3 Psychological control of working time: There is a tension between formal access to flexibility and the actual psychological control that employees have over their limits. The use of technology can create pressure to be available outside of official hours.

5.4 Fragmentation of work and private life: Work has become more transactional and episodic, with constant interruptions and back-and-forth switching between professional and personal roles throughout the day, resulting in fragmented attention.

5.5 Diversity and inclusion: Employees have increasingly diverse identities and life situations, requiring varied boundary management

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styles. Organizations must support these differences as a matter of inclusion.

6. ICT according to Different Theoretical Approaches

6.1 Beyond Technological Determinism

We have deliberately chosen not to draw on work based on deterministic approaches. This line of research posits that an object conditions an action, postulates a direct and observable effect of a technology on an organization, and a causal relationship between the introduction of a digital tool and its impact on activity. Technological determinism is based on the observation that technology is stable and that individuals cannot change it.

Technological determinism is contradicted by empiricism, which shows that individuals can modify the properties of technology after it has been designed. To return to this first observation, technology as such exists virtually and emerges when interaction with an individual is repeated and situated in a particular context. There is a distinction between the use of technology and its state (of being). The second observation would be that technology includes social structures. This second observation has been criticized in the sense that technology cannot encompass all the complexities of social artifacts. To this, it is in the recurrent use of technology that the latter can shape behavior and thus become a rule and a resource for the individual. However, just because technology is available, exists, and comes with a user manual does not mean that individuals will use it correctly. In this

regard, De Sanctis and Poole (1994) identify different uses of technology and different appropriations. Individuals have the choice in their actions to either follow the designers' instructions for using a technology scrupulously or to invent new patterns of use. In general, individuals focus on the properties they need in their daily actions and often ignore the other properties offered by the technology in question. In this example, this shows that individuals, depending on their use of the technology, adopt a number of rules and resources that in some way structure their interaction with the technology. Also, as this line of research does not take into account the social environment or the plurality of possible uses of digital tools depending on individuals and contexts, we have chosen not to select it. Indeed, we do not agree with the assumption that the introduction of a technology within an organization predictably changes the behaviors or activities of the actors involved, which is why we will use the concept of socio-materiality, referring to the work of Orlikowski, in our study (Orlikowski, 2000).

6.2 Perspectives on Integration and Separation

- **Separation perspective:** This emphasizes that many people need role clarity in order to focus, given limited psychological resources. Separation reduces dysfunctional interruptions and work-family conflicts, and facilitates psychological detachment. However, it may not be realistic for everyone and may reinforce rigid gender roles.

- **Integration perspective:** This perspective argues that mixing professional and non-professional roles can facilitate flexibility and

lead to positive outcomes. However, the rise of "integration" technologies can also be a barrier to well-being by making it difficult to disconnect. It is unclear whether blurring boundaries is helpful or harmful, as it allows for both greater flexibility and a permanent intrusion of work into personal life (Kossek, 2016).

No single strategy (separation or integration) is universally effective. Managing boundaries involves complex aspects of people's lives and varies according to identities, behaviors, and the level of control an individual has.

7. Research Methodology

This section describes the framework, population, sample, and procedures used to collect and analyze data in order to answer the research questions and test the hypotheses.

7.1 Study Framework and Duration

The study was conducted at Cevital Agro-industrie SPA, located on the back road of the port of Bejaia, Algeria. Fieldwork, including observations and primary data collection, took place over a two-month period, from March 5 to May 5, 2025.

7.2 Population

The parent population of this study consists of all employees of Cevital Agro-industrie SPA, in the wilaya of Bejaia, spread across different departments and sites. Given the research objective focused on the challenges of time management and the porosity of borders

linked to ICT, particular attention was paid to the category of managers. The company has 225 managers, identified as being the most exposed and the most equipped with digital tools, thus forming the target sub-population for this research.

7.3 Research Design and Data Collection

A qualitative methodological approach was favored. According to Angers (n.d.), quantitative methods are mainly aimed at measuring a phenomenon. As our objective was to gain an in-depth understanding of managers' perceptions, practices, and strategies in response to the intrusion of ICTs into their time management, the qualitative method proved to be the most appropriate. It allows for theorization rooted in the experience of the actors and a rich exploration of the processes at play (Angers, n.d.).

Three complementary data collection techniques were used:

a. Preliminary exploratory interviews: A series of informal preliminary interviews was conducted with a number of executives. These discussions made it possible to identify the main conflicts in the coordination of time, to understand the vocabulary used by the actors, and to refine the themes to be investigated, thus informing the final formulation of the interview guide and research hypotheses.

b. Direct observation: Immersion in the field made it possible to observe the actual practices of ICT use in situ. This observation included a demonstration of the company's software and information systems by the Information Systems Manager, providing a concrete

understanding of the tools available to managers.

c. Semi-structured interviews: The main technique used in this study, semi-structured interviews were chosen for their flexibility and ability to collect rich and detailed data. It is defined as an investigative technique "based on an interview guide consisting of different themes of questions" (Quivy & Van Campenhoudt, 2006), allowing the conversation to be guided while giving the interviewee the freedom to develop their ideas and experiences.

7.4 Conduct of Interviews

Semi-structured interviews were conducted at the managers' workplaces, under favorable conditions ensuring the confidentiality of the discussions. In order to guarantee the accuracy of the data collected and enable detailed analysis, all interviews were audio recorded with the prior consent of the participants. The interviews lasted between 30 minutes and 1 hour, for a total survey period of 30 days. An interview guide, structured around the key research themes (use of ICT, border management, perception of time, sources of stress, individual strategies), served as a guideline.

8. Results

This section presents the characteristics of the sample, followed by a thematic analysis of the interviews conducted with Cevital Agro-industrie executives. The analysis aims to test the research hypotheses by exploring the impact of ICT on time management, border porosity,

and well-being.

8.1 Sample Description

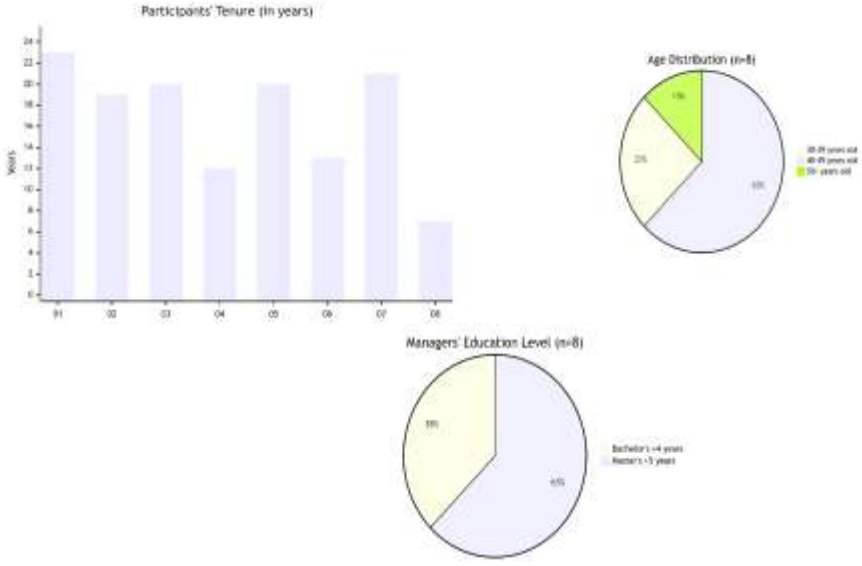
A reasoned sample of nine executives was assembled to ensure diversity in terms of function, seniority, and management within the company. The sociodemographic and professional characteristics of the first eight participants are detailed in Table 1. The ninth participant, whose data is not listed, holds a position as logistics manager.

Table 1. Profile of Interviewed Respondents

ID	Age	Gender	Education Level	Years of Experience	Position
01	46 years	Male	Bachelor + 4	23 years	Supply Manager
02	48 years	Male	Bachelor + 4	19 years	State Engineer
03	45 years	Male	Bachelor + 4	20 years	Direct Purchasing Manager
04	35 years	Male	Bachelor + 5	12 years	Production and Resource Planner
05	50 years	Male	Bachelor + 5	20 years	Head of Maintenance Department
06	37 years	Male	Bachelor + 5	13 years	Direct Products Buyer
07	48 years	Male	Bachelor + 5	21 years	Agri-food Buyer
08	34 years	Male	Bachelor + 5	7 years	Human Resources Manager

Source: Authors' own survey data

Fig.1. Profile of Interviewed Respondents



Source: Authors' own survey data

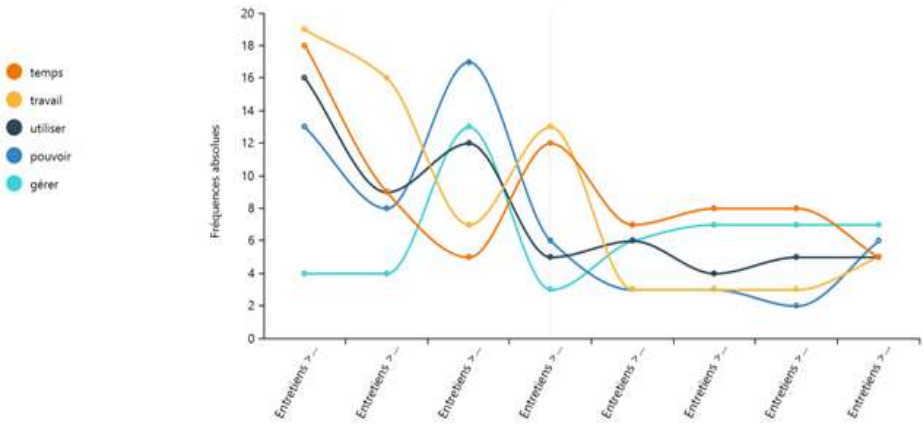
The sample is exclusively male, aged between 34 and 50 (average age = 44), and has a high level of education (four to five years of higher education). Their length of service varies from 7 to 23 years, reflecting solid experience within the organization.

8.2 Data and Thematic Analysis

The nine semi-structured interviews, lasting 30 to 60 minutes, were transcribed in full. A thematic content analysis was conducted using an iterative approach. After a preliminary reading, manual coding was used to identify units of meaning, which were then grouped into

categories (e.g., “efficiency gains,” “information overload,” “disconnection strategies”). These categories were refined and structured into main themes corresponding to the research objectives.

Fig.2 Word Trends from Qualitative Data



Source: Authors' processing via MAXQDA.

8.2.1 Impact of ICT on Organizational Efficiency and Time Management (Hypothesis H1)

The data largely confirms that ICT is perceived as a major lever for optimization. All executives emphasize its role in improving planning, coordination, and speed of execution.

• ***Centralization and automation***: ERP systems (Sage X3, SAP) are cited as key drivers of efficiency. One manager (ID 02) explains: "[With SAP] we no longer need to do manual calculations... we have real-time data to make reliable and quick decisions. " This automation

reduces errors and frees up time for higher value-added tasks.

• ***Smoother communication:*** Collaborative tools (professional email, WhatsApp for business) are described as essential for responsiveness. One executive (ID 08) notes: "Tools like Outlook and WhatsApp for business have made internal communication smoother... we can deal with emergencies more quickly. "

• ***Measurable time savings:*** The performance indicators mentioned show concrete gains: an increase in the number of cases handled (ID 01, 08), a reduction in delivery times (ID 02) and a reduction in the gap between forecasts and actual results (ID 05).

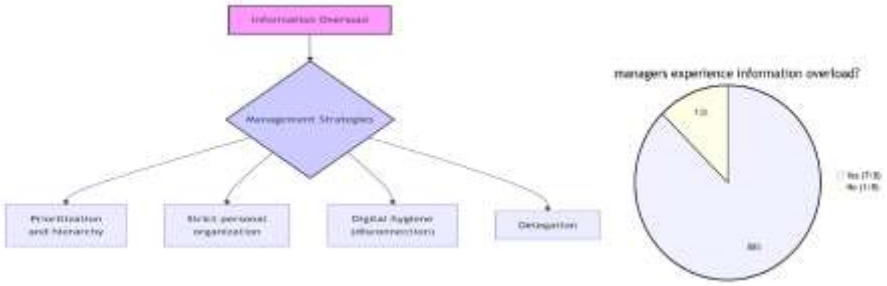
However, this advantage is offset by the emergence of information overload. The majority of executives (7 out of 9) describe a continuous flow of requests (emails, notifications). One respondent (ID 03) mentions receiving “up to 1,000 emails per day,” requiring tedious sorting, while another (ID 01) refers to “slavery to the PC” to describe the pressure to process messages before leaving the office.

Strategies for managing overload: Faced with this phenomenon, executives deploy individual strategies that are similar to the classic principles of information management**:**

- Prioritization (IDs 03, 04): sorting messages by urgency and importance.
- Strict personal organization (IDs 01, 08): structured schedule, dedicated time slots for managing emails.
- Digital hygiene (ID 02): deleting unnecessary information and refusing to check work emails outside the office.

- Delegation (ID 03): distributing tasks according to priorities and skills.

Fig.3 Strategies for managing overload



Source: Authors' own survey data

8.2.2 Porosity of Time and Stress Related to Permanent Connection (Hypothesis H2)

The analysis reveals a high degree of porosity between professional and personal life, directly attributed to ICT. Permanent connection via smartphones and instant messaging blurs the boundaries.

- **Connection outside working hours:** Most executives (6 out of 9) admit to working in the evenings, on weekends, or during holidays. One manager (ID 01) mentions being available "even when traveling or late at night." Another (ID 03) highlights the psychological pressure of being reachable "at all times," accentuated by working with international partners.

• Variability in boundary strategies:

Active segmentation: Some (IDs 02, 04) actively defend their personal time by refusing to install work apps on their personal phones or by turning off notifications.

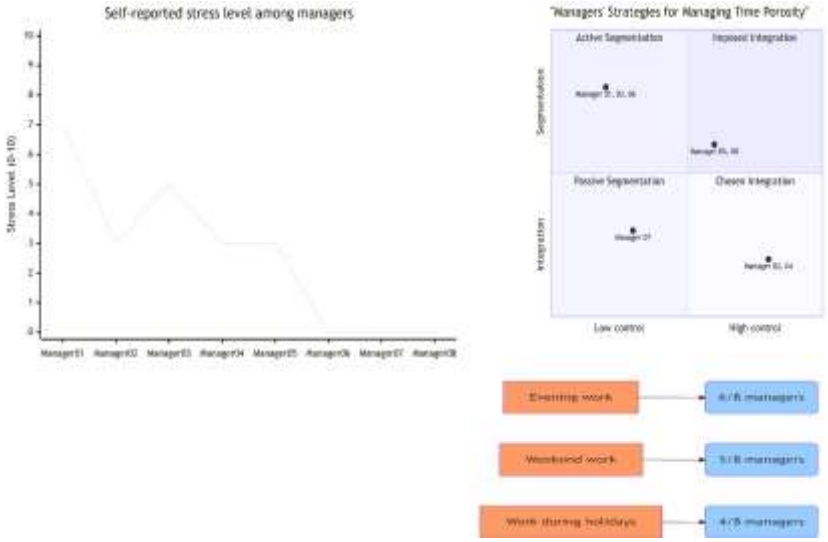
Resigned or accepted integration: Others (IDs 01, 06, 07) seem to accept this blurring of boundaries as a norm inherent to their status. One executive (ID 06) refers to an "implicit obligation" to be available, reinforced by the corporate culture.

Stress and pressure to be connected: Self-reported stress levels vary, but the pressure is unanimously recognized.

Moderate to high stress (4/9): Related to urgency, responsibility, and difficulty disconnecting (IDs 01, 03, 04, 05).

Low to controlled stress (5/9): Attributed to experience, good management strategies, or an ability to put things into perspective (IDs 02, 06, 07, 08, 09). Nevertheless, even these individuals recognize the existence of structural pressure. One of them (ID 07) admits that this constant connectivity is "a stressful process for health."

Fig.4 Time Porosity and Stress



Source: Authors' own survey data

9. Discussion

This section compares the results with the research hypotheses and places them within the established theoretical framework.

The results partially confirm hypothesis H1. ICT undeniably enables better planning, task automation, and time savings, thus validating its role in organizational optimization (Boswell & Olson-Buchanan, 2007). However, the emergence of information overload and technostress (Ragu-Nathan et al., 2008) is a major adverse effect. The promised efficiency is therefore conditional on the implementation of individual and collective strategies for managing attention and information, which is in line with work on time

"management" (Le Saget, 1992).

The results strongly support hypothesis H2. Intensive use of ICT has indeed led to increasing porosity between different types of time, blurring the boundaries between professional and personal life (Kossek, 2016; Derks et al., 2014). This porosity is not experienced uniformly: there is a continuum of strategies ranging from active segmentation to passive integration, confirming that boundary management styles are individual and contextual (Ashforth et al., 2000). The pressure to be connected and the associated stress, although variable, are tangible realities. The perception of an obligation to be permanently available, even among those who report low stress, highlights the potential gap between formal policies and actual organizational culture, raising the crucial question of the right to effective disconnection.

In summary, the study reveals the central paradox of ICT for executives: tools for empowerment and performance on the one hand, vectors of invasion and stress on the other. This ambivalence is perfectly illustrated by the word cloud and trends in discourse. Time management in the digital age is therefore no longer just a matter of individual skills, but has become an organizational issue that calls for collective responses in terms of training, regulating usage, and changing managerial culture.

10. CONCLUSION

The objective of this exploratory research was to analyze the

impact of ICT on time management and work-life balance among executives at Cevital Agro-industrie. Operationalizing the concept of time porosity shed light on the mechanisms by which digital tools are redefining temporal boundaries.

The results confirm that ICTs are undeniable levers of efficiency, but that they simultaneously generate information overload and increased porosity between spheres of life. This porosity manifests itself mainly in the form of constant connection and pressure to be available, which are sources of variable but widely shared stress. Faced with this phenomenon, managers deploy individual regulatory strategies, ranging from strictly defending their boundaries to resignedly accepting their erosion.

The managerial implications are clear. To transform the potential of ICT into sustainable progress, organizations must go beyond simply providing tools and:

Promote a culture of the right to disconnect by clarifying expectations and respecting rest periods.

Provide training in digital skills and attention management to help managers control information flows rather than be overwhelmed by them.

Consider the architecture of tools to limit intrusive notifications and encourage more peaceful use.

The limitations of this study, particularly its exploratory nature and its sample restricted to a single company, call for future

quantitative research to generalize these results and longitudinal studies to capture developments. Nevertheless, it contributes to a better understanding of the transformations in executive work in the digital age and advocates for a proactive and human approach to technology management.

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