CHAPTER 5

The Fast, the Feeble, and the Furious: Digital Transformation of Temporality in Clinical Care

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Abstract: This chapter draws on material from an anthropological study among nurses working in a hospital cancer unit in Norway. Based on participant observation and interviews, the chapter explores how nurses in a Norwegian cancer ward apply various strategies in balancing multiple clinical rhythms, through their interaction with digital devices and platforms in their clinical work. To address this issue, perspectives inspired by science and technology studies (STS) on acceleration and the interrelationship between technology and temporality, as presented in works by Hartmut Rosa and Judy Wajcman, have been applied. The study identified 'being ahead', 'falling behind', and 'working the system' as three different behavioural strategies or responses among the nurses. These responses were accompanied by feelings of being fast, feeble, and furious in meeting expectations related to speed in various clinical situations. By discussing how nurses engage with digital tools, to control, avoid or oppose dominating conceptions of time in modern hospital care, the chapter contributes new empirical nuances to the literature on how digital technology has become an integral part of the management of health and welfare institutions, and how such managerial power works.

Keywords: digital transformation, temporality, nursing, clinical care, Nordic welfare state politics

Citation: Ihlebæk, H. M. (2023). The fast, the feeble, and the furious: Digital transformation of temporality in clinical care. In R. Fugletveit & C. Sørhaug (Eds.), *Lost in digital translations: Studies of digital resistance and accommodation to the welfare state in practice* (Chap. 5, pp. 117–136). Cappelen Damm Akademisk. https://doi.org/10.23865/noasp.196.ch5

Introduction

This chapter draws on material from an anthropological study among nurses working in a hospital cancer unit in Norway. The modern hospital is a context where the focus on time optimisation has been concomitant with an increased use of universally designed infrastructure, permeated by standardised and digitalised technologies. According to the promoters of this technological development, digitalisation bears the promise of improved efficiency and quality of care, by altering the temporal structures of treatment trajectories and work practices (Pedersen & Roelsgaard Obling, 2020). Hence, 'faster' is taken as a corollary of 'better', thus enabling improved access to healthcare services, better allocation of economic and human resources, and resilience in the face of new emerging demographic challenges (Adam, 2004; Pedersen & Roelsgaard Obling, 2020).

However, increased digitalisation in and of healthcare systems has also been said to have wide-reaching implications, with unintended and often opposing or surprising outcomes. First, technological protagonist perspectives, often associated with time optimisation and profit-oriented care policies, are seen to be insensitive to the time and space needed to fulfil requirements of situated and person-centred care, which cannot be prescribed and measured (Cohen, 2011; Davies, 1994; Gherardi & Rodeschini, 2016; Kleinman & Van der geest, 2009; Schillmeier, 2017).

Second, questions have been raised about whether digitalisation can in fact solve the time crises in contemporary healthcare, and even more specifically, why it does not seem to do so, despite the fact that technological acceleration provides opportunities to solve more tasks in less time (Rosa, 2003; Wajcman, 2015). This puzzling tendency, namely that we turn to digital devices and solutions to alleviate time pressure, but still experience a growing scarceness rather than an abundance of time, is conceptualised in the literature as the 'time-pressure paradox' (Rosa, 2003, 2017; Wajcman, 2008, 2015).

Based on these contrasting perspectives of the potentials, problems, and puzzles associated with digital technologies as ways to enable work efficacy and high-quality care, this chapter explores *how the use of digital technologies transforms healthcare professionals' experience and managing of time and speed.* More specifically, the chapter discusses how nurses in a Norwegian cancer ward apply various strategies in balancing multiple clinical rhythms, through their interaction with digital devices

and platforms in a particular organisational, social, and material work context.

To address this issue, the chapter draws on perspectives inspired by science and technology studies (STS) on acceleration and the interrelationship between technology and temporality (Rosa, 2003, 2017; Wajcman, 2008, 2015). Within these perspectives, temporality is conceptualised as fundamentally socio-technical or socio-material, that is, as an enacted and constructed phenomenon, emerging in social processes through the mutual shaping of technology and human actors (Orlikowski & Yates, 2002; Rosa, 2017; Wajcman, 2008; Wajcman & Dodd, 2017). Thus, an STS approach makes it possible to avoid a deterministic view of the relationship between technology and time. On the contrary, it becomes possible to explore how people collectively find ways to adapt and actively shape the use of digital technologies, in order to take more control of time, rather than be victims of it (Wajcman, 2008). Finally, as outlined by Wajcman and Dodd (2017) it enables an examination of how the handling of speed is an essential property of the powerful in contemporary societies.

Based on these perspectives, the study findings indicate that nurses' experience of managing the multiple temporalities existing in a hospital context depends on their ability and willingness to appropriate, control, and manipulate digital technologies in their daily work. Three different behavioural strategies or responses, characterised in this study as 'being ahead', 'falling behind', and 'working the system' were identified in the exploration and analyses of caring practices, accompanied by feelings of being fast, feeble, and furious in meeting expectations related to speed in various clinical situations. Thus, the chapter contributes new empirical nuances to the literature on how digital technology affects and is affected by the temporal micro-coordination of labour processes in healthcare contexts (Erickson & Mazmanian, 2017; Mazmanian et al., 2013; Wajcman & Dodd, 2017).

Time and Acceleration in Social Theory

Time has, for quite a long period, been a major phenomenon of study and theorisation within the social sciences, constituting a pervasive and inescapable, yet intangible, dimension of every aspect of social experience and practice (Gell, 1992; Munn, 1992; Schulz, 2012). Much of the theorising in this literature has its roots in the classical dichotomy between *chronos,*

the objective, measurable and spatialised passage of time on the one hand, and *kairos*, the subjective 'presence of time' as lived quality and inner *durée* (Bergson, 2013) on the other (Davies, 1994; Munn, 1992; Orlikowski & Yates, 2002; Wagner, 1986).

This dichotomy is evident in sociological and anthropological concepts of the relativity of speed, stemming back to classic thinkers such as Marx, Weber, and Simmel, and analyses of the accelerating pace of modernity seen to be fuelled by technological innovation and industrial capitalist development (Dodd & Wajcman, 2017; Wajcman & Dodd, 2017). In recent diagnoses of contemporary times, interest in acceleration has taken centre stage, and was for a long time dominated by deterministic views of the role of technology in social change, and the idea of an emerging 'acceleration of just about everything' (Giddens, 1990, 2002; Gleick, 1999; Rosa, 2003, 2010; Virilio, 1995). Thus, standard sociological analyses have affirmed the concept of social relations as existing prior to and outside the intervention of technological innovations. Furthermore, information and communication technology is assigned a pivotal role in processes of acceleration (Wajcman, 2008).

Aiming to take on a less simplistic and more dynamic approach, this chapter is inspired by insights from science and technology studies (STS), which envision the technical as part of the constitution of the social (Wajcman, 2008). STS scholars have tried to nuance the conversation about the relationship between technology and temporality, focusing on the social dynamics and materiality of speed, including how digitalisation is concomitant with, but not determining the stepping up of the pace of our technological, economic, cultural, political, public, and private lives (Rosa, 2017; Wajcman & Dodd, 2017). Thus, the study that is presented in this chapter rests on the assumption that one must acknowledge the relative experience and expectation of time's passing as fast or slow, with various moral connotations and political implications in different empirical contexts (Molotch, 2017; Wajcman & Dodd, 2017).

The Rhythms of Care and The Modern Welfare System

Studies of time in contemporary healthcare contexts have identified how different care logics imply variations in how time is understood and addressed, with implications for different roles of care providers and receivers (Habran & Battard, 2019; Mol, 2008; Randall & Munro, 2010; Tomkins

& Simpson, 2015). Building on insights from this literature, Ihlebæk (2021), in a recent study, identified 'medical time', 'patient time', and 'hospital time' as three clinical rhythms that can be useful in deciphering and enhancing our understanding of the multiple temporalities handled by nurses in clinical work, and its effect on caring relationships.

'Medical time' is described as a dynamic rhythm that patterns patients' treatment plans and nurses' work schedules according to biomedical knowledge of the problem at hand, aimed at desired and fixed outcomes (Ihlebæk, 2021). 'Patient time', on the other hand, involves a flexible ordering of care activities according to patients' overall situations, their bodily responses, medical needs, and emotional and social aspirations. To nurses this means balancing the medically defined trajectory with the fluid boundaries of care as a process, where 'things take the time that they need to take' (Davies, 1994). Finally, 'hospital time' represents a task-oriented rhythm, structuring care activities according to the clock. It builds on the conception of time as an objective, measurable quantity, a resource to be managed according to demands for time optimisation and cost reduction (Ihlebæk, 2021).

In this chapter, these rhythms are used as a backdrop for detecting and discussing the various responses and strategies applied by nurses in their use of digital tools to control, avoid, or oppose dominating conceptions of time in modern hospital care. As such, the chapter should be read as a contribution to social scientific research on how digital technology has become an integral part of the management of health and welfare institutions, and how such managerial power works.

Awareness of the effects of welfare state politics, and how various processes of decentralised responsibilities combined with increased managerial control are met and handled is not new in a Scandinavian context (Vike et al., 2002). In studies of female-dominated professions like nursing, much attention has been given to how the evolution of modern healthcare systems has caused an increase in informal and invisible work, and a lack of control of the amount and complexity of organisational responsibilities (Allen, 2015; Englund & Solbrekke, 2011; Griffith & Smith, 2018; Haukelien, 2020; Olsvold, 2016; Thagaard, 2016; Thomassen, 2016). Contributing to this line of research, this chapter explores and discusses how nurses relate to digital tools in the temporal structuring of tasks, balancing their mandate as a caregiving profession and their role as the organisational 'glue' in the modern welfare system.

The Study

The empirical data presented in this chapter are based on a larger ethnographic study of knowledge in use among nurses in a Norwegian hospital cancer ward. The hospital is defined as a large emergency hospital in a Norwegian context, with about 5,000 employees and a catchment area of over 300,000 inhabitants (Norwegian Ministry of Health and Care Services, 2017). In line with lean management principles, measures had been taken to optimise organisational resources and maximise patient-related services at this hospital. This involved extensive use of clinical procedures, universal physical designs, and an extensive use of information and communication technology, like various computer programmes and smart phones, in the accumulation and documentation of patient-related knowledge.

Participant observation among the nurses was conducted from January to June 2017. The physical structure and work processes in the cancer ward were organised into three work sections, with nine single patient rooms in each, making a total of 27 patient rooms at the time of the study, and about 45 nurses working in the ward, including two men. I spent several days a week in the ward throughout the fieldwork, to gain familiarity with ward activities and continuity in field relations.

Since the nurses were attached mainly to one work section, I observed all three, spending three weeks in one section at a time to become accustomed to staff and routines. Two to three registered nurses ran a section during the day shifts, by dividing responsibility for the nine single-patient rooms among themselves. The main activities were centred around decentralised workstations, where nurses met on their way to and from patient visits. Here they would check or record information on computerised systems and get brief updates among themselves and with physicians and other practitioners.

Fieldwork was followed by formal interviews with nine of the nurses, with whom I had already built some rapport through observations. A semi-structured interview guide was developed to let nurses talk without undue interruptions, containing open-ended, descriptive questions (Spradley, 1979). In the interviews, I explored the nurses' experiences of organisational possibilities for and constraints to their nursing work. The value of time and the use of digital technology were among the topics that were raised most often. The interviews thereby brought further nuance and depth to fieldwork observations, in which time and technology

seemed to be ever-present and pervasive factors, affecting nurses' everyday work.

Appropriate IRB approval was obtained from the Norwegian Centre for Research Data (ref. 54770). All ward nurses were informed of my role, and none refused to take part in the study. To ensure internal and external confidentiality, names and ages were anonymised. All participating nurses signed non-disclosure agreements and gave informed consent. The nurses worked as gatekeepers for patient encounters, and all accounts of conversations involving patients were anonymised in the analysis by producing 'typical' patient stories, altering age, sex, or diagnosis.

Data analysis began immediately on entering the research setting, using temporality and technology as sensitising concepts, in order to orient my ethnographic gaze in the field (Blumer, 1954), and familiarise myself with the fieldwork material. The subsequent steps of thematic analysis, as outlined by Braun and Clarke (2006, 2019), involved generating, reviewing, and naming overarching patterns of responses in the combined empirical material, while simultaneously reviewing the literature on temporality and technology (Rosa, 2003, 2017; Wajcman, 2008, 2015; Wajcman & Dodd, 2017).

From this abductive process, allowing empirical observations and existing theories to enhance each other (Tavory & Timmermans, 2014), three analytical categories were identified: being ahead, falling behind, and working the system. The findings will now be presented as three ethnographic vignettes, representing typical situations condensed from the analysis of the data, and allowing for contextual richness and vivid presentation of the findings (Hammersley & Atkinson, 2019; Humphreys, 2016)

Being Ahead: It's Now or Never

> I join the morning meeting and find nurses from all three sections gathered around the conference table, all with their paper patient lists in front of them. Imatis is open on the digital whiteboard, and the coordinating nurse routinely starts naming patients, one section at a time. In response the nurses call out a number from one to three, according to the patient's status as: 1) in critical/poor condition; 2) ready to be discharged; or 3) stable but staying at least another night. Often the number is followed by additional information on the patient's condition, future treatment plans or care trajectory. I am seated next to Anna, the nurse I am to join on the coming shift, when Mr. Olsen, a number 1 patient in the haematology section, is announced and the coordinating nurse asks about the situation. 'Still critical, he needs close

surveillance', the nurse replies. The coordinating nurse makes some notes, and they go on to the next patient.

For the rest of the shift, Anna is on her toes rushing between patients and the workstation. She is especially worried about and attentive to Mr. Olsen, making sure to read through his situation on the computer. She scrolls down and opens note after note, back in time, trying to find relevant and essential information from other nurses and doctors, switching between the record system DIPS, and the medical e-curve system Imatis. 'There's such a long history and lots of information here! It is difficult to get the whole picture', she sighs to herself struggling to find the intake note. The computer is slow, and time passes. 'The wife is on us about their experiences at the previous hospital', she explains to me. 'And because mistakes were made when he first arrived here, they are afraid and suspicious, and compare all our decisions to what was said and done there. It's important that we make up for that now. That we build trust by taking their worries seriously.'

For the remaining part of the day, she tries to keep close surveillance, regularly taking the NEWS score and running back to the computer to document the results, responding to the wife's and patient's critical comments and questions. Even though his situation is thoroughly described in the electronic record notes in DIPS, and documented in the e-curve system MetaVision, she also calls the doctor to confer and discuss the patient's condition and her evaluation of it. 'I try to be ahead of the situation', she explains to me, and goes on, 'The life of a patient like Mr. Olsen hangs on a thread. He is curable, you know! We just need to get him past this critical phase. It is now or never.'

This vignette illustrates how information and communication technology (ICT) is closely integrated into, and affects the structuring and coordination of work. This was also evident when tracing how the scaling of patients at the morning meeting structured the rest of the working day, for both nurses and doctors.

Following the morning meeting, number 1 patients must be attended to first during the doctors' round, and they needed to be closely and frequently observed and attended to throughout the shift. Next in line were number 2 patients, who need to be digitally registered as ready for discharge before 12 noon to make sure that municipal care services take over responsibility and financial expenses for the patient. The discharge generated several tasks like writing the digital discharge note, making phone calls to the municipality services and relatives, getting hold of necessary medication and equipment, packing the patient's belongings, and ordering transport. Simultaneously, number 3 patients have to have help with personal care, get their medication and food at a set time, and be made ready for transport to other hospital units for various examinations and

interventions. Finally, these activities need to be documented in the electronic patient records at the end of a shift.

All these nursing responsibilities involved running back and forth, regularly engaging with the computer and the cell phone in between patient visits to obtain necessary information, make new requests, or tick off tasks that were completed. Through all of this, there seemed to exist a mutual agreement that the feeling of being fast involved being able to take advantage of the available technology to be ahead of work, to be updated, and in control. Thus, digital tools played a central role in the nurses' responsibilities for relational and organisational tasks oriented towards creating flexibility in work flows and continuity in patient care.

Nursing literature has shown that such obligations are often delegated to nurses, but not specified or acknowledged in the formal distribution of work (Allen, 2015; Olsvold, 2016; Thagaard, 2016). Accordingly, the managing of time through digital technologies has become an individualised responsibility, with moral connotations (Erickson & Mazmanian, 2017; Rowell et al., 2016; Thomassen, 2016), concomitant with being a capable, punctual, and hence, reliable employee.

The digital competencies of nurses did, however, not only relate to knowledge of specific platforms or devices. The complexity of patient cases like Mr. Olsen also illustrates that even though technology represents a motor for keeping up the pace of nursing work and ward activities, some digital tools were considered faster and more efficient than others. ICT, then, is not one thing, but is connected to and embedded in the social dynamics of work (Wajcman, 2015, pp. 87–109). The record note system clearly represented an important and necessary, but quite tedious, tool or partner in obtaining and communicating patient information. The phone was therefore frequently used to get quick answers and make swift decisions, that is to get things done. This was also evident in other situations, when things were at stake in evaluating patients' medical risks against their psychosocial needs.

Quite early during my fieldwork I witnessed a pre-round meeting, in which a haematologist and a nurse discussed a patient who was diagnosed with myelomatosis.[1] Considering her overall clinical condition they both agreed that she needed a Central Venous Catheter (CVC) versus a peripheral one for her future medication, as this would make the patient feel less

1 Myeloma is a blood cancer that develops from plasma cells (Cancer Research UK, 2020).

medicalised and more available to her small children. The anaesthesiologist, who was to insert the catheter, however, did not agree and had declined their request, considering the patient's lowered state of immune defence, and the risk of infection. The nurse then called the anaesthesiologist to update him on information that could not be found elsewhere, in order to convince him to change his opinion. Listening to the conversation the haematologist whispered, 'She should be a salesperson!', then wrote 'boss' on a post-it note and stuck it to the nurse's shirt. Following the pre-round meeting, the anaesthesiologist called the haematologist, and they agreed to take the risk.

Thus, in situations like these, the phone was not only a more efficient, but also a more strategic choice of tool to accommodate the needs of patients. It enabled the communication of information not suited for digital record notes, making it possible to align activities structured according to medical time, with the individual patient's rhythm and needs (Ihlebæk, 2020, 2021). Thus, being fast involved both technical skills and the ability to navigate the ecology of various digital devices and platforms. Finally, it demanded insight into organisational norms and values related to time as a resource, and the efficiency of different modes of communication. These abilities were variously distributed among the nursing staff on the ward, as illustrated in the next vignette.

Falling Behind: Computer Says No!

Anna meets up with Thelma, a fellow nurse, at the section workstation, and expresses her worries about working conditions, especially regarding patients like Mr. Olsen. She claims that she has reported through every possible channel on his critical condition, and the serious lack of resources needed to keep him under close surveillance, but with no response or results. 'In addition to the fact that Mr. Olsen might die on our watch, the other patients are suffering too. It is not possible both to keep him under close surveillance and take proper care of the others. What's the use of documenting our observations and raising our voices when nothing happens?' She goes on, 'I even physically went to the ward nurse to insist that if we do not get extra resources, he needs to be transferred to the intensive ward. And she responded by talking about financial costs, and that our staffing situation is not the intensive ward's problem. Yet as soon as the doctors report the situation, the transfer is made immediately. It is so disheartening.'

The conversation drifts into a sharing of mutual frustration over being reprimanded for registering overtime spent on documentation, and being questioned about the high percentage of sick leave. 'No wonder people get sick', Anna claims.

'The responsibility for these patients, when we are constantly understaffed, is both mentally and physically exhausting. We are constantly on our toes, receiving incoming calls and responding to alarms, even during lunch hour', she goes on. 'Agreed! We are always available nowadays, with mobile phones and all. The small micropauses are gone really. In addition, there are longer distances here compared to the old hospital. The number of steps on my pedometer nowadays!? All this endless walking from here to there is very time-consuming', Thelma claims.

While talking, Anna was trying to print a tag for a urine test. 'Why isn't this stupid machine responding?' she bursts out. 'Having problems installing the right printer again?' an arriving health worker joins in, humorously. 'Not only that, today nothing works. I feel I have spent most of the day waiting for MetaVison. It's been so slow, updating or uploading or whatever it is doing', Anna responds. She then turns to me, 'You have probably noticed the difference between me and her when it comes to technological speed and skills! She is young and intuitively understands all this computer stuff. I just feel like giving up.' 'The computer says no?', I ask with a smile. 'Exactly!', Anna replies and sighs.

A second behavioural response identified during the fieldwork observations of nurses' interaction with digital technology was to jump off the hamster wheel. The high percentage of sick leave was one distinct and serious way through which capitulating to the accelerating speed of work activities on the ward surfaced. Physical exhaustion and mental burnout were frequently discussed among the nurses, as a response to their heavy and complex responsibilities and time pressure.

These findings are in line with research showing that the current managing of modern healthcare institutions leads to disillusioned and morally stressed nurses who become alienated from work, with withdrawal from employment as the ultimate response (Allen, 2015; Epstein & Delgado, 2010; Thomassen, 2016). Feelings related to being powerless in meeting expectations to speed up, and becoming passivated in a technologically dominated work environment, were, however, also evident among the nurses who persevered. The vignette shows three different ways through which this surfaced during fieldwork.

First, nurses at times felt that technologically mediated knowledge about patients was not heard or responded to. As an experienced nurse, Anna felt disheartened by the fact that her evaluations did not lead to action. Not only did her assessment weigh less than the doctor's assessment, but her arguments were also dismantled by financial and organisational considerations. Thus, nurses' inability to promote change on the receiving end was accompanied by an experience of feebleness, being outmanoeuvred by

a system 'saying no'. The nurse's disapproval could be illustrative of how medical time constitutes 'the silent politics of time' in hospitals (Ihlebæk, 2021), building on a biomedical and technoscientific language and line of argument that nurses need to acknowledge and master to be heard.

The situation also illustrates insights from STS literature on how analyses of technology and speed need to address the differences that exist in temporal experiences among variously placed social actors (Jackson, 2017; Rosa, 2017). Hence, the possibility of being fast in a technologically mediated world is not evenly distributed, meaning that some people become agents of speed, getting things done, while others are forced to wait, or are ignored altogether (Jackson, 2017). Furthermore, it confirms the basic assumption that technological devices and platforms are given power, and used as tools to control who become agents of speed in particular contexts (Wajcman & Dodd, 2017).

Second, the vignette shows how the nurses experience an increased expectation to be always available. Thus, they face more and more legitimate claims on their time budget, that is to their availability, responsibility, and opportunity to solve any task at any time (Rosa, 2017). Nurses frequently spoke warmly about the old hospital, which represented a more analogue workspace, where expectations to solve certain tasks were largely restricted to their physical presence in a specific location at a particular time. In contrast, they nowadays operated in a digitalised working environment arranged for ubiquitousness.

Technology, according to Rosa (2017), plays a role in the current piling up of people's to-do lists, because it lengthens the possible list of legitimate claims on our time budget, increasing imaginable opportunities, and converting all hypothetical opportunities into real options. This creates a mismatch between the time allocated to a set of given tasks, and the actual time needed to do them properly (Rosa, 2017). The distribution of such mismatches is not even. Nurses are an occupational group in an unsolvable cross-pressure, stuck between two different sets of incompatible but legitimate expectations (Rosa, 2017). Patients and their needs require unlimited and unmeasurable care and attention, while managers and regulations allocate much less time to each treatment. Thus, the mismatch between nurses' identity as a caregiving profession and their technical and managerial responsibilities is built into the very structure of routine work (Allen, 2015; Olsvold, 2016; Thagaard, 2016). According to Rosa (2017) this makes burnout or withdrawal a very natural and understandable response.

Finally, in the last paragraph of the vignette it became clear that digital devices were experienced as a nuisance, causing disruption to the communication of information and ruptures in workflows. Technical problems of installing printers, time lags due to uploading documents, or restarting programmes caused numerous frustrating situations for the nurses and were often stated as reasons for feeling ineffective. Jackson (2017) also highlights how digital devices, as key instrumentalities of speed, are prone to failure, breakdown, and decay, directing our attention to the temporalities of maintenance and repair. Maintenance is a type of work that is often considered routine and mundane, but in reality involves crucial elements of creativity and skill (Jackson, 2017).

In this study, skills seem to vary among nurses according to age, experience, interests, and the situation at hand. It also varied according to whether the nurses related to digital devices as an integral part of their work, or as something exterior to it. Thus, overwhelmed by what seemed like technological fatigue in an accelerating digital environment, some nurses felt they were standing still, and hence, falling behind. Such feebleness was at times replaced by fury, as will becomes evident in the last vignette.

Working the System: Winning Battles but Losing the War?

> Anna and I go to the combined kitchen and conference room, where one of the haematologists is seated at the computer. Thelma, who is working in one of the other sections today, is also present eating her lunch. After some general small talk about ongoing ward activities, the conversation naturally drifts to the vulnerability of the patients, and the critical staffing situation in section two. 'These patients are so vulnerable! They say we are supposed to delegate tasks to the oncoming nurses, but that is not always possible', Anna exclaims. 'I know! Last week I was reprimanded for having registered too much overtime, it's a very stressful situation! We cannot always leave a patient because we need to spend the last 30 minutes on documentation! They don't get it! It makes me so furious! So, now I choose to stay behind to finish off the reports without registering the extra time', Thelma replies.
>
> The doctor seems upset on their behalf, and claims she has talked to the executive physician about the matter. He emphasised the importance of evaluating the patient's condition and follow-up needs to calculate the severity of the resource situation. She looks at the computer and the nurses join her, trying to find the evaluation form. The haematologist opens different programs. 'Hm … is it done in Imatis?', Thelma wonders. They call on the ward nurse who is in the office nearby. She is stressed and resignedly mutters that she has not had time to eat. 'You need to remind us how important

> doing the evaluations is, and the routines for doing them', Anna states. 'I have done that, I can't remind you every day', the ward nurse replies bluntly and rushes off.
>
> The haematologist finds a stack of post-it notes and starts writing: 'Please remember to evaluate the patients, so that we can hire more nurses!' The nurses seem to appreciate this and laugh. The haematologist puts the notes up on the wall several places around the lunchroom. An alarm suddenly goes off on Anna's phone, and she replies and leaves. 'I guess lunch is over', Thelma says, starts to clear the table, and puts her lunchbox back in the fridge. Before she leaves, the doctor continues her motivational appeal, 'Remember, if you work extra, you need to register it, even though they might refuse to pay for it. They can't fire you for working overtime.' Thelma nods, 'You're right, we need to be better at documenting reality, to show what we are up against. I guess we need to be better at working the system!' She looks at her patient list, and then rushes out.

This last vignette illustrates how the nurses were indignant about not being allowed to structure their time in ways that allowed them to take proper care of patients. Furthermore, they needed more nurses, which they saw as essential for increasing the available amount of time spent on each patient, rather than more technology. One option to show their opposition, and to obtain more human resources, as suggested by the haematologist, was to work the system. This was a strategy much talked about when sharing frustrations about the hospital and ward management. Still, it did not seem to lead to any shared efforts or ongoing campaigns. Two possible reasons will be offered to explain this.

First, the strategy was already being practiced, but without luck. During the fieldwork I learnt that there was always one nurse responsible for operating the emergency phone for cancer patients, who had received treatment or been hospitalised in the cancer ward. Incoming calls were often plentiful and long-lasting, and in addition, the information received on the patient's condition needed to be documented in the electronic record system, as well as the length and total number of incoming calls during a shift. I was told that they used to have an extra resource to handle such emergency calls in addition to the ordinary staff, but with the introduction of mobile smartphones this extra role was terminated. The cancer phone was now operated by one of the nurses, who simultaneously had responsibility for several ward patients. The need to register data on the number and length of consultations had been introduced to clarify the workload, which hopefully could then be used as an argument to reinstate the extra resource, thus working the system. This had not happened, and the nurses now found that

filling out this form represented a useless expenditure of time on top of other responsibilities. Thus, it presented one more task on their to-do list.

Experiences like this naturally left the nurses with the disillusioned impression that the system could not be beaten. More importantly, however, they found that in fighting this battle there would be victims, which eventually meant losing the war. In an interview, one of the nurses claimed:

> You know, we probably should be better at documenting … for instance, that today I didn't get time to sit down for lunch or to complete the documentation on time. But in the end, we rather end up stretching ourselves to the limit. You know, if I played rough, for instance by prioritising the report and delegating all patient-related tasks at the end of a shift, I know there's only one person who would suffer, and that is my patient. And so, I never end up doing that!

A second possible reason for lack of joint resistance among the nurses, then, was their main and shared concern to provide proper care for their patients, which entails building a partnership, through deep ethical commitment and attachment (Mol, 2008). Furthermore, it involves a particular structuring of care activities, where time is valued as a process or a journey, oriented towards the patients' unknown future (Habran & Battard, 2019; Randall & Munro, 2010; Tomkins & Simpson, 2015). Hence, patient time represents a clinical rhythm characterised by fluid boundaries, enmeshed in social relations, and inseparable from context and is, therefore, difficult to manage, plan or measure (Davies, 1994; Ihlebæk, 2021). Fighting to establish and sustain such openness in care relationships, the nurses' enemy did not seem to be technology itself, but the dynamics of a capitalist care policy, using digital tools to streamline and control work.

Rosa (2017) claims that if the experience of time pressure increases, despite the introduction of technology that makes it possible to accomplish more tasks faster, then the technology itself cannot be blamed. To understand the reasons for 'the time-pressure paradox', then, we need to explore how the increase in the number of tasks on the to-do list might be caused by other factors, like economic competition or socio-political conditions. In proposing a definition of modernity, Rosa (2017) claims that modern societies and organisations are characterised by their striving towards a mode of 'dynamic stabilisation', which is a state that systematically requires growth, innovation, and acceleration to remain at its socio-political and institutional status quo. In a hospital context, this involves a constant drive to increase the number of treatments 'produced', the number of treatment

options developed, and the rate of patient throughputs, through an acceleration of technological innovation.

The problem is that the time we can apply to the accelerating growth in number of products, options for action, and possible human contacts virtually stays the same, with an ever-increasing time-scarcity as an unavoidable result (Rosa, 2017). Solving this puzzle seemed to be a lonely and invisible endeavour, depending on the individual nurse's willingness and ability to push oneself to the limit and beyond to ensure good quality care. The question of how much speed individuals can take before they break, then, becomes central (Rosa, 2017). These are important insights that need to be understood, if we are to grasp the fury of nurses who find themselves fighting battles in a war that is difficult to win.

Conclusions: The Fast, the Feeble, and the Furious

This chapter has explored how nurses in a Norwegian cancer ward apply various strategies in balancing multiple clinical rhythms, through their interaction with digital devices and platforms, and how this has altered their experience of time and speed. Through observations of care activities and interviews with nurses, 'being ahead', 'falling behind', and 'working the system' were identified as three responses or strategies accompanied by feelings of being fast, feeble, and furious. Three overall implications of these findings will now be highlighted, indicating how this study might bring nuance to established perspectives on digital technologies, and their effects on the temporal structuring of professional work in modern health and welfare contexts.

First, the various strategies and related experiences among the nurses, of the possibility to manage time through the use of digital tools, illustrate how we cannot treat all time the same, as if we inhabit only one time-space, namely that of an acceleration society where everything is going faster (Molotch, 2017; Wajcman, 2015; Wajcman & Dodd, 2017). The increased temporal pressure reported by nurses seemed to be related to an apparent layering of responsibilities in time and space, rather than a constant speeding up of things.

Thus, in a modern hospital context, tasks associated with the complexity of different clinical rhythms are, to a lesser extent, sequentially organised,

stretched out in time, and allocated to different spaces. Instead, they appear piled up, since claims emanating from any context were increasingly perceived as legitimate at any given time, competing for the nurses' temporal attention. This is an important insight with implications for our understanding of the complex ways through which digital technology transforms the nature of healthcare professionals' temporal experience, and the management of work in modern health and welfare contexts (Rosa, 2003, 2017).

Second, the finding that ICT can both speed things up, slow them down, and pile them up, indicates that we need dynamic perspectives on what technology is, based on empirical investigations of the affordances of specific tools in any given context. Thus, we need to realise how temporality is an enacted and constructed phenomenon, emerging in socio-material processes through the mutual shaping of technology and human actors (Rosa, 2017; Wajcman & Dodd, 2017). Only then are we able to comprehend the role of human creativity and skill in handling the ecology of available tools and platforms, and technology's possibilities and vulnerabilities, related to breakdown and decay. By exploring the complex interplay between human and non-human actors, then, we can nuance both overly optimistic and deterministic perspectives, to achieve a real picture of what technology can and cannot do.

Finally, if we really want to solve the time crises in modern healthcare systems, this study suggests that we need to critically evaluate management systems and care policies, which authorise technology as a means to optimise, standardise, and control work. In the modern hospital, technological implementations are advanced through formally acknowledged biomedical care logic, creating a particular temporal order (Ihlebæk, 2021). Nurses, however, have wider relational and organisational responsibilities beyond the patients' medical trajectory, solving tasks that are difficult to prescribe, document and measure, and therefore are often rendered invisible and tacit (Allen, 2015; Olsvold, 2016). To nurses, and other professions in similar positions, the temporal flexibility and autonomy facilitated by ICT, thus comes with an individualised moral obligation to manage several competing professional and organisational demands and clinical rhythms effectively and simultaneously.

These implications need to be acknowledged if we will ever be able to grasp the potentials, problems, and dilemmas associated with digital technologies in modern health and welfare contexts.

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