

# MGMT

of Innovation and Technology

---

Nr. 3 oktober 2022

**Time for Change: How  
Temporal Shifts  
Enable Digitalization**



---

# Time for Change: How Temporal Shifts Enable Digitalization

---

By Sofia Pemsel &  
Jonas Söderlund

How do organizations change? This is a puzzling question that research and practice have been grappling with for decades and clearly a central question for a number of research projects among IMIT fellows and partners. Indeed, we know quite a lot about change – and how successful change is facilitated. We know what some of the most common mistakes are, and we know what the most important success factors are. That said, there are some factors that are more intriguing than others. Recently we have started to become increasingly aware of the close relationship between time and change – that time may in fact trigger change, and that time in itself is a central issue to change. This is, for sure, a difficult, but at the same time essential challenge that requires new theorizing around change and innovation. In particular, we need to know more about the actual speed of change, the right rhythm of change activities, the right sequence of change activities, and the best timing of change activities. In a recent study we set out to explore some of these issues in more depth.

This study shows that deliberate rhythm changes, so called temporal shifts may provide a new understanding of change. Such temporal shifts enable organizational actors to reflect and rethink their historical and current ways of doing things – and thereby trigger innovative behavior that contribute to change. What then are those temporal shifts and what role do they play in change?

Every organization has its own internal rhythm of how and when to do things with regards to frequencies, sequences, durations, and timings of activities – when shall things be done, for how long and in what order? An organization has its hidden rhythms that everyone interested in understanding that organization needs to uncover. From a scholarly point of view, such rhythms form a diverse set of temporal regularities that constitute an organization's temporal order which can be extremely challenging to change as they are often highly institutionalized and deeply engrained in various organizational practices. More so, the temporal order is a key element of the organizational culture and capabilities. The temporal order may both

enable and hinder organizational change yet simultaneously offer cues for anticipating organizational change. Understanding the temporal order, this study demonstrates, seems particularly important when organizations change and embark on initiatives to digitalization.

## **Changing times for digitalization**

Digitalization is often associated with increased speed, things that before took weeks can now be done in a few seconds, only with a few “clicks” on your computer. Design of architecture and new product development are only two out of many operations where digitalization has meant increased speed. For example, Building Information Modelling (BIM) demark a shift in speed of design practices decades ago, but our digital models still advances and with that open, not only for new ways of designing, but also new ways of collaborating and coordinating work as well as new ways of operating and maintaining the product throughout its lifecycle. Digitalization may so enable processes to go faster, things to be done simultaneously with a higher frequency. Finding the right timing of when to do certain things hence is different from non-digital prac-

tices, which can cause abnormal, ambiguous, and uncertain situations for the actors involved in the design process. Digitalization hence requires a change of our temporal orders and our time horizons, if implemented wisely and is not met by heavy resistance.

## **Temporal shifts as enablers for digitalization**

Research shows that temporal shifts enabled the implementation of digitalization in a large-scale construction project. The project's ambitions were innovatively demanding with a challenging deadline. The project team quickly realized they would never be able to meet their deadlines with current pace in design - the project task was too complex, too large, and too tight timewise. The project team assigned a digitalization team with the task to develop and implement a novel digital tool in the project. Since the novel tool was cutting edge it required novel practices that would break with the design people's current knowledge horizons. The project director appreciated this new tool would require a fundamental change and support structure around the designers, there were no time for people

## Temporal zone

Figure 1. The three roles of temporal shifts (from Söderlund and Pemsel, 2022)



doing things wrong or refusing to adopt it. Time was ticking. The project director implemented four core initiatives to support digitalization:

1. The digital team was given equal level of authority as the designers. Normally the designers were ranked above the digital people. But here the digital team was empowered to send home designers that refused to adopt the new digital tool and design practice.
2. Implementation of three novel digital roles: model managers, content managers and equipment managers with the task to teach, control and support the designers.
3. Implementation of novel design practices of when and how to design
4. Implementation of “No design time” when the designers were not allowed to design since the digital people had to check and prepare drawings on a weekly basis. This was a very controversial new practice since the designers were used to design until the very last minute before delivery.

These four new practices met some resistance, uncertainties, ambiguities among the designers, but through persistent work by the digital team, it paved the way for a temporal shift – and a rhythm change in the project around how and when to do certain things. The temporal shift enabled the rhythm change by: (1) making people aware of how they have historically done things and what problems they are now facing, (2) making people more aware of how their own actions influence others, and (3) the temporal shift made people more aware of how their current actions should be adapted to face future challenges and requirements (see Figure 1).

### Managerial implications

The project under study here played a key role to make change happen. The project demarked a bracket in time with its clearly defined deadline and supported by a temporary organization set up to deliver the project. This was evidently fundamental in giving participants an understanding of the need for and direction of change. The project as such was vital to harbor the temporal

shifts and moreover give the rhythm change legitimacy among the project actors. This is an important managerial implication – understand the different ways to harbor temporal shifts and thereby facilitate change. In addition, our findings indicate that managers need to be aware of the following steps:

1. **IDENTIFY THE TEMPORAL ORDER** in the existing organization. Get a grip of the “right” (current practices) concerning durations, sequences and timings of the practices in need to be changed. What are the legitimized rhythms in practice in the organization?
2. **DESIGN THE RHYTHM OF THE CHANGE EFFORT** and future practices.

3. **CONDUCT A COMPARATIVE TEMPORAL ANALYSIS** between the current organizational rhythm and the change rhythms to get an understanding of how and why actors might start resisting the change analyze.

4. **SUPPORT THE TEMPORAL SHIFT** by implementing new roles, support functions and authorities to bridge potential temporal resistance. For example, make people reflect about the current temporal order and how it needs to change to better fit the new requirements of the situation and perhaps the future. That is, ensure the temporal shifts make people reflect about past, present and future to create a collective understanding of where to move and why.

#### RECOMMENDED READING:

> Söderlund, J., & Pemsel, S. (2022). Changing times for digitalization: The multiple roles of temporal shifts in enabling organizational change. *Human Relations*, 75(5), 871-902. <https://doi.org/10.1177/0018726721991623>



#### SOFIA PEMSEL

sp.ioa@cbs.dk

Sofia Pemsel, Ph.D., Master of Science in Engineering, is an Associate Professor in Project Management and Organization at Copenhagen Business School (CBS). She is a member of the Centre for Organization and Time (COT) as well as the OT@IOA Group at CBS. Pemsel's main research interests focus on projects and project-based organizing from a knowledge, innovation, and temporal point of view. She has published in peer-reviewed research journals such as *Human Relations*, *Long Range Planning*, and *International Journal of Project Management*.



#### JONAS SÖDERLUND

jonas.soderlund@liu.se

Jonas Söderlund, Ph.D., Professor of Strategy and Organization at Linköping University. He has been a member of the Advisory Board of Project Management Institute, Director of executive education programs at BI, Norway, and professor at several universities and business schools. His research centers on the dynamics of strategy and innovation with a particular focus on knowledge integration, temporality, and project-based organizing. His research has been published in many of the leading journals in innovation and organization, such as *Research Policy*, *Organization Studies*, *Human Relations*. He is on the editorial board of several academic journals, including *Organization Studies* and *Human Relations*. He is an associate editor of the *Project Management Journal*.