

The Future of Work as Time, Space and Place: What is at stake for managers and policy-makers?

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The topic of the future of work is more and more present in contemporary discussions about new ways of organizing work and life in the current post-pandemic phase. As the future is no longer following a straight, hard line coming from the continuous growth of our economies but questioned, the topic of the future becomes urgent. The way we work, the relationships between work and performance, work and growth, work and life, are more deconstructed than ever. The pandemic, with the dramatic suspension of work for many people and the generalization of remote work (from 3% in France to one third of the active population today) has intensified the exploration of radically new ways of working and made these dynamics and debates more visible beyond academia.

With the climate crisis, the return of war, the rising inflation, the increasing adoption of artificial intelligence, work is at the heart of contemporary existential crises in our societies which question both the how and the why of work. While the “how” regards the where, when and modus operandi of work, the “why” entails deeper inquiries about purpose and meaningfulness, sense and non-sense, and opens up to a rich repertoire of new imaginaries about the future of work. In both cases, discussions are hardly new² but rarely have they been so hotly debated and contested.

Interestingly, the buzzword “future of work” highlights the temporal and narrative aspects in the ‘how’ and ‘why’ of work arrangements. Answers need to be imagined and act as bridges between the past and the future. Narratives about science and about fiction also play a very important role in spacing and emplacing of new people, techniques and situations. Conversations about work offer a rich ground for research into the future as new present, often frightening, unforeseeable, disruptive. And while we cannot feel these imagined states yet, to act means acting from the here, experimenting from now. Emancipation, subjectivation, and agency to transform the world require both new narratives, new temporalities and new spacing and emplacements for our ways of working. As Foucault (1984) said in the last interview of his life: “Search for what is good and strong and beautiful in your society and elaborate from there. Push outward. Always create from what you already have. Then you will know what to do”. The spacing and emplacing in our present are thus often major levers for the required transformation of work and

societies in the age of radical crisis (see also Louzeau, Quenet and de Gélis, 2022).

Despite the fluid and uncertain times we are crossing, a divide between how we treat time and space has proven long-lasting both in academia and in the world of practice. Surprisingly, the bulk of contemporary research has expanded a great divide between research on space/place and research on time and temporalities (although recent initiatives increasingly aim at filling this problematic gap).

It is beyond the scope of this editorial to provide a systematic literature review of the separation between time and space, as well as deep reflections about the relationship between space, place and temporality. In this short editorial, we would like to go back to questions of time, space and place from a philosophical perspective. We would like to remind that, from the bulk of the perspective of the philosophers interested in experience, time and space could not be separated ontologically. And that any attempt had problematic political consequences. Then, we would like to draw some implications for research and practice in the form of a manifesto which constitutes the continuation of some debates from our last RGCS Symposium in Grenoble³.

To illustrate our argument, we will use the fictitious case of a start up, First Shot, devoted to Artificial Intelligence solutions for academia. The product of First Shot is an artificial intelligence tool which automatizes the writing of scientific articles by referencing to academic literature. It uses the main quantitative results and trends from a quantitative survey (done previously by researchers feeding the request) to elaborate the corresponding qualitative comments and analysis automated by the AI. Although it does not claim to be an article itself, it is a first step (‘shot’) towards an academic paper. Founded one year ago, the company is led by two associates, Sophia and Stan, and relies on freelancers from an engineering school.

1. A short détour towards philosophy: integrating space and time as key concerns

Most philosophies have rarely separated time and space. According to most views, spacing and emplacement need a now, a duration and/or an event to be effective. Either in memory, in matter, in rêverie or in perceptions, space and place exist and (re)occur. As follows, we will explore

¹ In the order of appearance: Université Paris Dauphine-PSL - Bayes Business School - University of Modena and Reggio Emilia, DISMI.

² May 68 or in the 19th century, Marxism or more specific movements such as art and craft, have already been opportunities for radical questioning of work.

³ See <https://rgcs-owee.org/symposium/symposium-2023/>

three different perspectives on the inseparability of time and space in philosophical thought.

Among the numerous philosophers who explore this interweaving, Bergson (1896) is a very interesting case. For him, life is all about experience. And this experience is duration. Life is all about something lasting, this set of duration. Without duration, the world is just dead. Movement is a mere superimposition of immobile images assembled one after the other. It does not live and express anything. What about space in this context? For Bergson, it is part of the memory of the world.

Spatium for him is more in memory itself as virtualities. Space is the spacing between memorized past events as 'images'⁴, virtualities (see figure 1). In the process of becoming itself, actualities constitute the world as looming ahead, not emplaced and spaced yet in the memory, our present (see also Deleuze, 1966). Space is what is once things have happened, once they have come from the future ahead to be incorporated into experience. Interestingly, for Bergson, the closer we are to the present of a now, the more contracted (and spatialized) experience is. The further we look in the past, the more expanded the cone of virtualities (Bergson, 1896).

Bergson's view of space and time: spatium, memory and matter

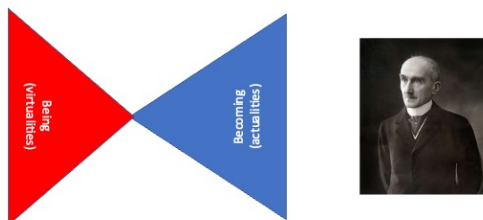


Figure 1: The spacing of memory and the time of becoming according to Bergson (1896).

Symmetrically, the further in the future, the more open the cone of actualities (de Vaujany, 2022).

What would Bergson teach us about First Shot? All the data inside the AI system and all the experience of its (deep) learning and parameter setting are part of the present. This present is full of new virtualities for our startup and their academic 'customers'. Images of 'data', their links and distances are gradually incorporated both in the memory of the tool and the embodied memory of Sophia and Stan. The new work practices of academics (in particular those involved in quantitative techniques) are in this movement coming from ahead, in actualities. Their reconfiguration, as pure temporalities and events, are in conversation with the spatialized time of the system (as

events located in the spatium) and the embodied memory of Sophia, Stan and all people or objects wrapped in the process of designing the tool.

Close to Bergson's experiential and vitalist approach, Whitehead (1920, 1929) has defended an events-based, actual occasions grounded, approach of time and space. For Whitehead, the world is a continuous happening. Events are the core ontology of the world: They call each other and cluster each other in the mattering of experience, such that various past, present and anticipated events can be wrapped in the same becoming. For Whitehead (1920, 1929), within the primordial happening of the world, volumes, spaces and places happen. The world is spaced and emplaced in its happening (see also Wahl, 1932). No event, then no space and no place. But without spacing and emplacement, no real power and matter for events (no subjectivity in Whitehead's sense).

To further expand on these perspectives, we will use the following metaphor: Recently, one of us attended an experimental, largely improvised, play in a theater in Paris. At some point, two actors were in front of each other: a woman in love and a man in doubt of his love. And the woman told the man (probably in an improvised way) a beautiful sentence: "My house is now, in your arms". She did not say "My house is in your arms now" neither "My house is in your arms". By insisting on the necessity of a present event ('now'), she opened the possibility of the spacing, placing of the arms (see also Simons, 2012, 2018).

Surprisingly, the becoming of the world is propositional for Whitehead (1929, 1938). Both events and non-events, what happens and what does not happen, what works and what fails, presence and absence (see also Giovannoni and Quattrone, 2018), all become part of experience (see figure 2 below). In this sense, they propose possibilities to the world in its present. Since experience is deeply propositional, also what is placed and non-placed, spaced and non-spaced, is propositional.

To come back to the story of our startup, the experience of First Shot is full of things that happened (expected or not) or did not happened (as expected or not) for Sophia, Stan, their team and the process of their AI. They launched the product two months later than planned. They expected great media coverage which did not happen. They failed to include in their product all the features they would have wanted. For instance, findings of qualitative studies went beyond the possibilities of generative AI they worked with, so they were hard to

⁴ For Bergson things happen primarily as sound and light images made of lines intersecting and differentiating acting entities in experience.

include in the algorithms of their product. However, all these events and non-events did not impede their success. The delay in the product launch was not grasped by others with the same sense of concreteness and urgency that Sophia, Stan and their team had experienced as they had approached the deadline. The lack of media coverage gave rise to more personal and embodied occasions for collaboration such as presentation events, workshops and live seminars, which expanded their knowledge and relationships in the community of AI venturing. Last, the limitation of their product fed an image of the venture team as hackers and experts in quantitatively oriented papers (which “was not the plan” but it was also “nice to have”). All events and non-events in their journey, be they failures or more simply expected things that did not happen brought about new unexpected possibilities.

James J. Gibson (1979) introduced the concept of affordances to describe the relationships that exist between organisms and their environments, stating that “perhaps the composition and layout of surfaces constitute what they afford. If so, to perceive them is to perceive what they afford” (p. 127). This is a radical hypothesis, for it implies that the “values” and “meanings” of things in the environment can be directly perceived as part of an immediate environment. For Gibson affordances are something purely spatial (the knob affords the movement of opening the door). With the idea of experience as propositional, Whitehead emphasizes both temporal and spatial possibilities which constantly influence each other, in a continuous process of becoming such as the one of the startup described here. The startup as a narrative, its actions of parameter-setting and communication, its unfulfilled expectations, all afford the strategy process and the new work practices of the startup and its customers.

Whitehead (1929, 1938): events, volumes and propositions

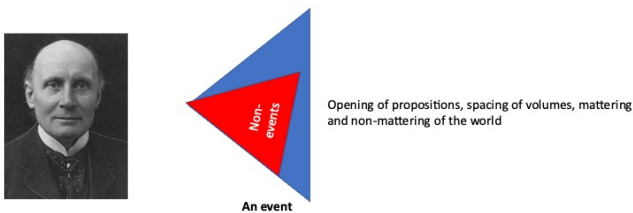


Figure 2: Events and non-events as propositional according to Whitehead (1929, 1938).

Lastly, and in strong apparent contrasts to the previous views, Bachelard (1922) has emphasized verticality and moments over duration and events (see figure 3). For him, phenomenologically, as a deep subjective experience, time does not expand nor occur: we are just there, nonchalant, stuck in immobile moments in the world (Helin, 2020).

Also, time does not ‘go’; What passes is the movement and rhythms of our “reveries”.

Bachelard: imagination, poetical spacing, moments

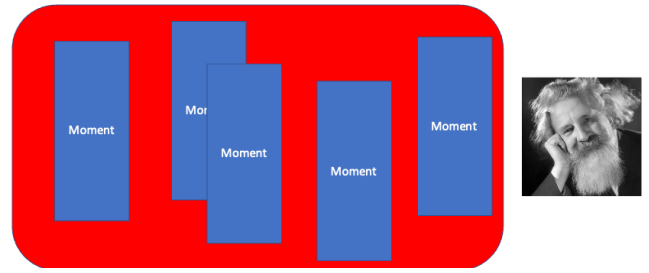


Figure 3: Verticality and moments in Bachelard’s thought

Bachelard has insisted on the poetic spaces explored and expanded through reverie. Spacing and emplacing is here most of all an oniric travel enabled by the immobility, atemporal dimension of experience.

First Shot opens an imaginary space around the work of Sophia and Stan as their entrepreneurial project: that vision of the ‘electronic brain’, artificial intelligence complementing if not substituting ‘us’, robots producing intelligently and supporting academics in their work. More subjectively than Bergson and Whitehead, Bachelard invites all startups and their world to contemplate the spacing of their entrepreneurial venture. All the deep moments that have inhabited it as happening so intensively that in many ways, time stopped and nothing was happening around and in-between for Sophia and Stan. First Shot is the strange sum of these moments (a key meeting with a bank, an idea in the design of the AI tool, an encounter with a customer inspiring a new direction...). The moments shook the ground of Sophia and Stan and verticalized deeply their experience as taking place there. Likewise, for the new ways of working of academics, their innovation represents a moment. A deep moment reconfiguring almost instantaneously what they imagined and could imagine after it about their way of working. Commenting research, analyzing data and most of all, narrating scientific work, became brutally different, without a sense of duration and happening.

We will not go further here in this philosophical vignette. With these three examples of famous philosophical thoughts and our illustrations with First Shot, we just wanted to insist on the inseparability of time and space in philosophical thought, and the importance of spacing and emplacement as power, mattering, agency, transformative potential interwoven with the happening of experience.

When studying work in time and space we suggest that research designs need to broaden our perspective to

capture the subtle links rather than separating time from space and place. How is work experienced and thought of dynamically and localised? What can we learn from a more finely attuned set of data that captures what happens now inseparably from where? The locus and moment of imaginaries and calculations, arguments, and control may reveal new solutions to old problems and questions of how to work and when and where. Academics and managers need to question and possibly challenge the routine and tyranny of common sense and step back from how work has always been carried out because it just might no longer be the best way to work!

2. Implications of a temporo-spatial view of the future of work for managers and policy-makers

In continuation of our previous vignette, the future of work, either as actuality, future event or reverie, needs to be jointly thought as time and space/place. This future is necessarily a 'where' as much as 'when', a presence as much as an absence, a set of things happening (somewhere) and others not-happening (somewhere else).

Remote work, artificial intelligence, new work mobilities, digital nomadisms, collaborative spaces, third-places, new ways of working and living, are as much future narratives, future events, as questions of new movements, new places, sites and spaces opened by these happenings. Thinking and acting jointly about these issues is extremely important, both for managers and policy-makers.

For managers the future of work is more than ever a concern. Re-inventing the way we work is primordial, just as re-configuring the time-space of work. But it is important to avoid creating separate time-space practices, as is often the case: the 4 days week, new work temporalities, new rhythms and new narratives of flexible working times, on the one hand, and new work spaces, new mobilities and new sites, on the other. A related problem is that corporations tend to specialize actors in solving space or time issues by creating management departments and space planners, on the one hand, and planning and forecasting structures, project management and strategist roles, on the other.

The future of work requires us to overcome these great divides to effectively re-design and experiment new ways of organizing work and life. Management must be reconfigured not only as more systemic but also as more integrative of time and space issues, closer to life itself, thus living and becoming.

Likewise, policy-makers need to think about time and space issues jointly, as well as about the chains of consequences that their policies may entail from a temporo-spatial perspective. This means, first of all,

overcoming the dichotomist structures with which policy currently operates, for instance urbanism, infrastructure, mobility and welfare, in order to take steps forward toward a unified vision of societal needs. Third-places have thus too often been as places and spaces more than new temporalities. Policy-makers who visit third-places ask their community managers to show a space or place. A visit may not allow to see projects whose events and non-events matter far than the space per se and capture the possibilities that point beyond what a visit by senators, deputies, or the mayor can achieve.

The limits of participation and immediate experience of organizational events appear as the boundaries of our work: how can we join meetings in parallel and overload our agenda as manager further without losing sight and losing control? What are the efficient ways of interacting remotely that afford and permit work as being part of what matters? Lave and Wenger (1991) coined the influential notion of legitimate peripheral participation to denote the learning that includes socialization in professional environments: how does this participation work in new work? We argue that it happens in both time and space and neglecting one of them will only relate a poor version of events and of the experiences needed to get work done.

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