

Enriching social dialogue actors with knowledge about work in the context of digital transformations: learnings from a first trial of a social design approach

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Abstract

Social dialogue has undergone regulatory structural changes in France in recent years. Associated with a context of accelerated organisational change and changes in the relation to work following the health crisis, the role of trade unionist in digital transformation questioned.

The aim of this communication is to illustrate the situation of the social dialogue in some industry 4.0 of the metalworking industries to lead digital transformation and to present the development of an approach – Social Design approach - aiming at strengthening social dialogue by the integration of future work in digital transformation by the mobilization of ergonomics method (as future work simulation) by social dialogue stakeholders.

Indeed, difficulties to mobilise social dialogue on the digital work transformation are observed, due to fear of sharing the decision – from executive and unionists - or fear from executives of being hindered in the implementation of projects by trade unions, or a lack of consideration of real work. The analysis of the trial of the approach during a project aiming at digitalizing some parts of an engineering work in a car company shows “fruitful possibilities” and “real life resistances” on the topic of the collaboration between project stakeholders (executive, trade unionists, operators and technicians impacted, management...). However, the approach enriches the technical project of organisational requirements as new function in the organization has been identified resulting in simulation of the future work. This transfer of knowledge about work has fed the role players of the digital project, as the trade union involved, even if the actual collaboration between trade unionist and executives remains partial. This trial calls for more research on ergonomics’ action to support a more cooperative and work-centred social dialogue.

Keywords

Digital transformation, industry 4.0, social dialogue, design method, ergonomics

Context

Social dialogue has seen significant changes in French labour law since 2017. These transformations of the rules and activities of trade unionists are concomitant with major digital transformations in companies. A challenge for both unionists and researchers (interested in transformation of social relations at work and work transformation) is thus to understand how the digital transformations changes labour, employment and organizations, and how these transformations could be relying on social dialogue.

This is in this context, that the project in which our research takes place was funded by the European Social Fund (ESF) from 2019 to 2022 following a request from the CFDT union (Confédération Française Démocratique du Travail), which then contacted the CRTD Cnam Ergonomics team. Our team was contacted with regards for its experience in supporting design projects in the perspective of Activity-Centered Ergonomics (Garrigou et al., 1995; Daniellou & Rabardel, 2005) and, particularly the methods of simulation of future work (Daniellou, 2007; Barcellini et al., 2014; Béguin et al., 2019; Galey et al., 2022). In collaboration with a union

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member, members of a consulting firm and two researchers from Ergonomics team at Cnam, an approach associating actors (executives, managers, operators and technicians, unions) involved in transformation projects was developed (Galey et al., 2022). This approach is structured in six steps: a social construction with different actors, during this step, a method agreement will be defined between executives and trade unions to frame the modalities of action; an exploratory phase based on interviews of actors to specify the orientations of the analysis of work situations; the set up of a work diagnosis (Guerin et al., 2021); the discussion of this work diagnosis analysis to construct a shared diagnosis with all the actors and to define the orientations of simulations of the future work; the simulations of the future work with workers involved in transformation project; the discussion of transformation to be performed and an eventual follow-up.

After the search for several experimental sites allowing us to understand the state of social dialogue in six industrial companies, we were able to experiment with this alternative approach to social dialogue in an industrial company deploying a virtual testing technology. In the case of our research, the new technology would virtualize some aspects of testing for product engineering design. Several meetings to present the project to the management and operators concerned made it possible to specify the needs relating to this transformation project. These needs concerned the anticipation of the new work organization brought about by the new technology, by anticipating the new dysfunctions, roles, and cooperation.

Objectives

The objective of this communication is to illustrate (1) a state of social dialogue with regards to digitalization project in metalworking industry, and (2) the findings regarding the trial of the social design approach to lead work transformation relative to digital design project, involving trade unionist, managers, and workers. Thus, we sum up the “fruitful possibilities” and “real life resistances” (Martin, 2004; Béguin, 2010; Béguin & Puyeo, 2011, Chizallet et al., 2019) regarding the implementation of this approach on one industrial site. The “fruitful possibilities” refer to the real possibilities and feasibilities regarding the trial of the approach and the associated results related to the digital project transformation or social dialogue development. The “real life resistances” refer to what is impossible regarding the real implementation of the trial of the approach, the digital project and social dialogue development.

Methods

Concerning the state of social dialogue regarding digitalization project in metalworking industry, twenty-six semi structured interviews were conducted. More precisely, six interviews were conducted with directors and HR directors of industrial companies (kitchen, cable, aeronautics, electric motors, machining, and automotive sectors), five interviews were conducted with management consulting agencies, two with leaders of employers' federations, thirteen with employee unions in the metalworking sector (including a central union representative and representatives of the local union section) has been done, with the aim to assess workers participation trends and local social dialogue in industries 4.0 of the metalworking sector. These interviews were conducted both to construct a diagnosis of social dialogue in their digitalisation project but also to explore the feasibility of experiment the social design approach in some of these companies.

Concerning the social design analysis, twenty-one individual semi-structured interviews of the industrial site stakeholders, seven days of global work observations, three workshops of two hours based on simulation of future work (with workers and managers) based on potential work

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scenarios (support by model based as an intermediary object) for work activity analysis, and two feedback meetings has been done with transcripts of notes.

The analysis of the trial of the approach on the industrial site lays on the identification of “fruitful possibilities” and “real life resistances” to inform on the local social dialogue and the possibilities to develop its with methods of ergonomics like simulations of the future work.

Main results

Worker participation trends and local social dialogue within six companies

Figure 2 presents a characterization of worker participation (as a form of informal social dialogue) and local social dialogue process that are evoked in the interviews with directors and HR directors of the six industrial companies (the machining, aeronautical and automotive sectors, cable, electric motor, and kitchen manufacturers). Each plot on the graph represents the position of the companies in relation to each other regarding local social dialogue and workers participation, and each square details qualitatively the participation of workers and the mobilization of local social dialogue during digital project deployment for each company.

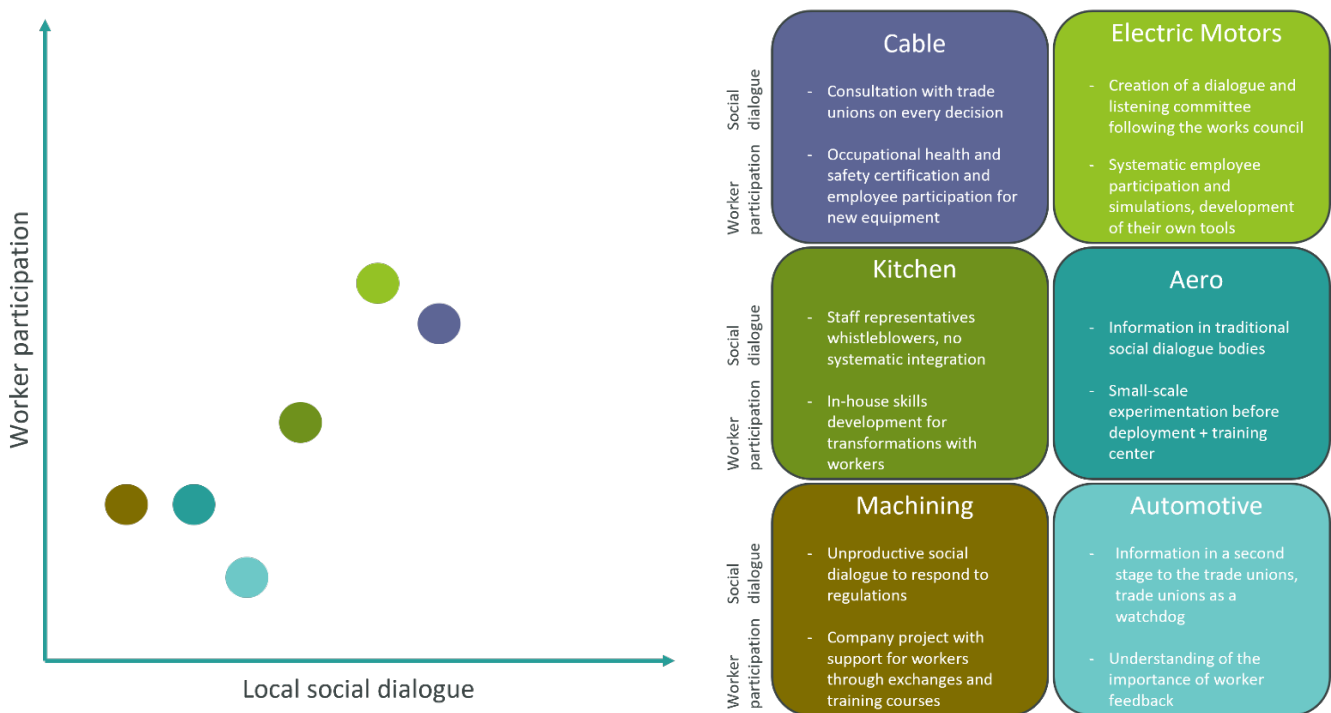


Figure 2. Worker participation trends and local social dialogue within six companies in the transition to Industry 4.0 in the metalworking sector.

It is rare that staff representatives are invited to be involved on the subject of the digitalization of work. Their role is more akin to monitoring the potential impacts of these transformations, or even, as a stakeholder to be informed after the fact. A high level of disparity is noted, from the perception of unproductive social dialogue to the establishment of a “dialogue and listening committee” in response to the need for discussion in addition to the CSE (Comité Social et Economique) for the electric motor company for instance (Figure 2).

The involvement of workers itself appears more present in supporting these transformations. Workers are at least systematically “partners”. This partnership may take the form of informing workers, as far as conducting simulations of future work, as for the electric motor company, which could be viewed as effective participation (Darses et Reuzeau, 2004), including discussions and training with workers, as for the aeronautic or kitchen company.

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It is not employee representatives that provide the point of view of work in these transformations, for at least four of the six companies encountered (machining, automotive, aeronautic, kitchen). This shift of social dialogue activity to other stakeholders is also underlined by a leader from the employer's federation: *"A particular feature for all these companies is direct relations with operators. They are not talking with trade unions, perhaps because they are viewed as obstacles, either because they are no longer there, or because management does not feel the need or the desire, or they feel that they will be more effective by going directly to the workers"*. This statement reinforces the analysis of one staff representative, who explains that managers are tempted to make use of direct interactions with workers to bypass the unions, which underlines the poor quality of local social dialogue described in the literature (Galey et al., 2022). This group union representative explains his view of the negotiation process at stake in social dialogue *"There are at least 4 or 5 phases in a negotiation. First, there is the upstream work, so it's an exchange of views, is it worth going to the negotiation. And in the negotiation itself, it's about... the first thing is the shared diagnosis (1), it's the management's diagnosis but it has to be shared, so you have to accept confrontation. In general, we don't have too many difficulties with that, because if they don't want to, there's no point in us being there. We just get up and leave. So we've never reached that point. We get angry from time to time but that's it [...] So a shared diagnosis, then it goes through a method agreement (2), because if there is a negotiation at the end of this shared diagnosis, we build it [...] Then it's the negotiation (3) as such after this method agreement. Afterwards, we reach a compromise, that's the principle of negotiation, so that means that this compromise must not be unbalanced, which has often been the case. In other words, in order to have a subject that was close to our hearts, they proposed 3 or 4 subjects that were a bit offensive to us. So how do we judge the balance? And in this case, the bilaterals [meeting with management and staff representatives] are important. There are things we can say to each other in bilateral meetings that we don't want to say in front of everyone, because if there is a [other union] or [other union] around the table, they don't have the same objectives as us. And then when we arrive at the end of the negotiation, and there is a signature of agreement (4), if there is a signature of agreement, which is what we very often forget, then it's the after-sales service (5). How do we value what we have signed"*.

These elements illustrate some difficulties in French social dialogue and the barriers that have to be fulfilled in order to propose enrichment of social dialogue. Despite these and thanks to an important "lobbying" work (Galey et al., 2022), we finally encountered a company opened to the trial of the social design approach.

"Fruitful possibilities" and "real life resistances" during the implementation of the approach

Four main "fruitful possibilities" and four "real life resistances" has been encountered during the trial of the approach on the field.

The "fruit full possibilities" concern:

- The set up of some new way of discussion around a digitalization project through three kick-off meetings (one with a joint institution; one with the local unions; and a broad-based kick-off meeting that included the site executives, management, the research team, the digital project team and the workers affected by the digital transition),
- the participation of the strategic social dialogue stakeholders (executive site and management, the digital project team, the research team, the affected workers and certain unions) at the first feedback meeting (end of the second phase) fed by a global diagnosis on the transformations of work based on the twenty-one interviews. The discussions have produced a consensus on the orientation of work analysis (mainly the organizational aspects) and the work situations to be analyzed,
- in-depth understanding of the new organizational constraints due to digital project through participatory work simulation workshops during the third phase leading to organizational design requirements: *"The [model architect] function, that's how it came about."*

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"The diagrams with interactions were used repeatedly to support the need to centralize requests and to designate people to coordinate information [...] A person to act as an interface between department A and the other department. This is a position that is being created",

- an interest in continuing to develop this type of approach expressed by the executive management and the employee representatives.

The "real life resistances" concern:

- the possibility of a joint social construction with trade unions: at the local level, three trade unions were present and didn't work together. After the kick-off, one of the trade unions refused to participate in the social design approach and to cooperate with direction, and the other one left the project after an announcement of the outsourcing of a maintenance service by the direction.
- the impossibility of constructing an agreement method with trade unions and managers because of conflicts and tensions between local trade unions and management in a restructuring context.
- A refusal to explore employment issues particularly in relation to the future of the company's site.
- The dependence of the quality of the approach on the industrial group's overall strategic decisions which leads to some stop in the approach due to strong announcements within the company.

Discussion/perspectives

This research confirms the difficulties regarding French social dialogue (see Galey et al., 2002 for a review) and take place in research around ergonomics' action in social dialogue processes (Gaudart et al., 2012; Ponge & Dugué, 2017; Dugué & Petit, 2018). Several limitations can be discussed in relation to this experience that should be addressed in the future with regards to the development ergonomics actions to improve social dialogue. Despite the persistence and coordination of the project by the team involved with all the trade unions on the site, only one organization agreed to participate in the project from start to finish. It was also not possible to go through the traditional social dialogue bodies in the company (CSE or CSSCT) to present the project and report on its progress because of the fears of the management. A specific joint steering committee was set up, enabling the project launch and feedback meetings to be held. Crucial coordination work was carried out between the intervention team and the management, and then the intervention team and the trade union, to allow an exchange of information, in the absence of a common space outside the steering committee. In addition, the simulations of the activity were carried out by the external intervention team and the employees. The staff representatives and the management team used these results without being at the origin of their production that can limit the development of new methodological knowledges. Within this company, a transfer of the approach would therefore require a major investment by the trade unions, which is difficult to imagine in the current context without the support of actors specializing in methods of future work analysis (ergonomists in this action research). Moreover, the balances constructed and the availability of trade union players seem fragile, as we can imagine in the current context of mobilization in the face of retirement reform in France. Although it is too early to draw up a real assessment of the impacts of this action research, we can nevertheless identify collaborations, methods and results that would not otherwise have been possible in the conduct of this digital transformation project.

Further work related to this research action will focus on the development of alternative methods to strengthen the involvement of strategic stakeholders in the design projects concerning work

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transformations and industry 4.0. Thus, new knowledges relating to the work of social dialogue stakeholders and the workers impacted by digital transformations must be developed.

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