

Coworking Spaces: Windows to the Future of Work?

Changes in the Organizational Model of Work and the Attitudes of the Younger Generation

Ina Krause

Research Associate, Ina.Krause@tu-dresden.de

Institute of Sociology, Dresden University, 01062 Dresden, Germany

Abstract

This paper analyzes how the organization of work has changed since the 1990s including the emergence of digital forms of employment. Following the evolution of work over the course of the 20th century and the start of the 21st, this paper discusses the developments in three periods: the postwar industrialization, the era of automation and digitalization, and, finally, the rise of the virtual economy. Each of these periods correspond with a certain model of production: Fordism, Toyotism, and Uberizm (or Waymoism, named for Google's Waymo project), which each forms a certain organization model of work (process management, project management, and

joint or cooperative action management) and requires different sets of skills. During the discussion of the evolution of work organization, including its geographical and temporal aspects, how attitudes of individuals towards work have changed over time is regarded.

Finally, the concept of coworking is analyzed as the cultural foundation for virtual work. Due to the continuing nature of this research, this article presents only the initial results. Therefore citations from one selected – out of 14 conducted – in-depth interviews with managers of co-working spaces are presented to illustrate the first outcomes.

Keywords: organization of work; digitalization; virtual work; skills; work attitudes; coworking; fordism; toyotism, post-fordism; uberizm; waymoism

Citation: Krause I. (2019) Coworking Spaces: Windows to the Future of Work? Changes in the Organizational Model of Work and the Attitudes of the Younger Generation. *Foresight and STI Governance*, vol. 13, no 2, pp. 52–60. DOI: 10.17323/2500-2597.2019.2.52.60

Introduction

“How will we work in the future?” was a question I posed during a seminar discussion about digitalization and the future of work. And I received one nearly identical answer from different independent groups of students studying sociology at a German university: “We will not ‘work’ in the future ... what humans in the future society will do, is to engage in ‘meaningful activities’ – ‘work’ will be done mostly by machines, robots, computers, and algorithms!”

This is a very optimistic scenario that oversimplifies the complex discussion about how the processes of digitalization – automation, informatization, and transformation [Brynjolfsson, McAfee, 2014; Hirsch-Kreinsen, 2016; Zuboff, 1988] will alter the types of work and workload of humans in the near future. However, it does demonstrate a very important aspect of the discourse about the future of work. It shows that the phrase “work” in the eyes of the Generation Z – the “digital natives” [Tapscott, 1998] – is a phrase and concept of the past. For the younger generation, the word “work” is related to a way of life they reject. It embodies a social order that differentiates sharply between working and leisure time and where workplaces are clearly delineated from private places. This encompasses a paradigm where “to work” means to act in a rational goal-oriented, and hierarchical manner – while the private and the family environment are areas where one can act in a more emotional and cooperative manner. This is a way of life where activities with social esteem are related just to paid work embedded in a hierarchical organization.

What I observe in my seminars is that the younger generation prefers the phrase “engagement with meaningful activity” instead of the word “work”. This indicates a change in individual and social attitudes. A change of attitudes that I want to discuss and explain with the analysis presented in this paper.

This paper focuses on the changes in the organization of work since the 1990s in the context of the proceeding digitalization process. I begin this paper by taking a look into the history of modern human work in the 20th century. While doing this, I want to point out the main criteria used to differentiate between the organization of work and employment in an analog versus digital and virtual environment. Finally I use the phenomenon of coworking to discuss one vision of the future of work.

Three Periods of Economic Developments in Postwar Western Europe

The organization of work over the course of the 20th century can be divided into three periods of economic development in Western Europe: postwar industrialization between 1949 and the late 1970s, automation and digitalization between the 1980s until the late 2000s, and the virtual economy starting in the early 2010s. For each of these periods I identify a character-

istic model for the organization of work and the essential skill set required for those operating in a particular context. Each period has a characteristic production model, which frames the organization of work and the social landscape (see Table 1).

The production model of the Fordism and Toyotism has been studied in greater detail in the past [Piore, Sabel, 1984; Fujita, Hill, 1995; Wood, 1991; Bell, 1999]. So for my short study I choose automotive industry as reference to obtain a clear picture of the differences of these production models in the three selected periods. The automotive sector was a leading sector in the 20th century and remains so at the beginning of 21st century. The search for the best solution for individual mobility in modern interconnected societies has always produced innovative concepts and structures that calls for improvements in other sectors and areas of social life. The models of the three selected periods can differentiated into the following:

- *Fordism*: the production system of the postwar industrial period where the mass production of cars was an economically successful concept and the Ford-inspired model was a leading organizational concept [Forgacs, 1988; Piore, Sabel, 1984];
- *Toyotism or Post-Fordism*: a period when the diversified production of high-quality cars became the new key production model that was first implemented in Japan and attained economic success and formed a more flexible and more flat organizational structure [Wood, 1991; Fujita, Hill, 1995];
- *Uberizm or Waymoism*: the newest system based on virtual value chains and the idea of the sharing or platform economy which revolutionized production structure and consumption. This shift has ramifications beyond the automotive sector. The virtual economy allows the joint use of goods for personal and commercial purposes without fortifying ownership rights (for example, cars in the case of individual mobility as the service), thanks to the constant access to these goods by virtual systems. Uber implemented this business model to offer private mobility as service enabled by a permanent virtual reachable mediation platform [Stampfl, 2016]. Waymo went a step further in December 2018 by offering a taxi service with driverless cars supported by a virtual app service [Krafcik, 2018; Laris, 2018]. This new business model combines the new technology of autonomous driving with a sharing economy business concept of individual mobility. So what we actually can observe is a reorganization process of traditional industry production system to a total service-focused value creation system addressing the consumer community acting in a virtual world.

On the basis of this short study of the production model in the three economic periods I further discuss in detail how the production models influence the organization of work and the skills necessary for

the working population. For this discussion I raise the questions: What does the change from one model to the next mean for the organization of work and skill requirements? How strongly does the change of the model affect the social context as well as the attitudes of the individuals working and living within an economic period?

The Organization of Work in the 20th and Start of 21st Century

Process Management: The Organization Model in the Postwar Industrial Period

In the postwar period the production sector was the main source of value creation and employed the largest share of the workforce. Henry Ford (1928) developed the idea of the one large vertically integrated organization at one location in order to optimize the mass production of standardized goods by product-specific machines operated by semi-skilled manual workers [Jessop, 1992]. The main goal of that kind of organization was to exploit economics of scale by a network of large assembly lines and modern machines. Mass production and consumption led to a rise in prosperity in Western societies until the 1970s. In this time investments in machinery and modern process management secured competitive advantages. The focus of expanding the production system and economic activities remained very local. Even global companies had locally based production. Globalization just meant building a new manufacturing location at another place in the world with the latest know how and technology. Specialization only took place as the production of different products at one location or another occurred [Fujita, Hill, 1995].

Looking further to the organization of work within the larger enterprises in the production sector in the postwar industrial period, one sees how the vertically integrated companies generated a special kind of organization of labor based on the idea of economics of scale. Process management tools were adapted from the tool box of Taylorism and emphasize the concept of standardization and division of labor by dividing the tasks into very small working units to optimize the work flow within the hierarchical work structure. While the hierarchical work structure was built upon the strong differentiation between unskilled and semi-skilled manual workers as well as highly qualified professionals and managers forming the group of wage and salary earners. Firms required both a broad basis of unskilled and semi-skilled workers and a smaller group of professionals in the leadership and expert positions.

The further division of labor and the application of other Taylorism tools together with political and institutional restrictions of postwar production relations led to the deep segmentation of the labor in the United States and Western Europe [Doeringer, Piore, 1972; Lutz, Sengenberger, 1974]. However, the institutional

environment [Hall, Soskice, 2001] was built upon the principles of paid labor on a long-term basis. One of the consequences of such an arrangement with production institutions was the sharp division between work time and free time, workplace and personal space in accordance with institutional structure produced as a result of postwar social and political achievements. This concerns the main type of production relationship, namely work contracts and labor legislation that protects the rights of workers. Such an environment was the product of increased stability, security, and consistent growth of well-being.

Project Management: The Organization Model in the Automation and Digitalization era

With the advent of the third industrial revolution in the late 1980s, the aforementioned postwar production as well as work organization model began to shift. Following the argumentation of Bell [Bell, 1999] this shift was caused and formed by four technological innovations: the rise of electronically controlled systems; the miniaturization of electronic components; the digitalization of information; and the development of user friendly software. These changes push large, vertically integrated companies to reorganize their production systems.

The concepts of modularization and fragmentation played a critical role in the reorganization of production [Schilling, 2000], which became popular in Western Europe in the 1990s and were based on the experience of Japan in 1980s. Ohno Taiichi [Taiichi, 1988] developed a new production system that took advantage of the new opportunities offered by automation and digitalization. Such new systems were used in a very innovative way in order to shorten the production cycle and better meet the demands of the consumer. The modularization and fragmentation of the vertical value chains both inside and outside of the firm allowed for expanding the assortment of products, improving their quality, and shortening the production cycle in line with just-in-time production management (JIT). The modularization of the value chain also allows for overcoming the limitations of large vertically integrated production systems and strict organizational hierarchies, facilitating the discovery of the innovative potential of workers, both those employed in manufacturing and in the services sector.

Lying at the basis of the Japanese automotive industry since the 1960s, the base concept of Toyotism [Fujita, Hill, 1995] became more and more attention in the 1990s and transformed the Western model of work organization. Toyota shifted focus from mass production and economies of scale to a diversified, small-scale, launch of high quality products [Kern, Schumann, 1984] and more flexible adaption to the needs of different consumer groups. This concept focused on time as a factor for gaining a competitive advantage on the market. Competitive advantages could be mainly reached during this period by developing and produc-

Table 1. A Comparison of the Organization of Work and Wider Social Contexts during the Three Different Economic Periods in the 20th Century and the Beginning of the 21st Century

Periods of Economic Development	Postwar Industrialization between 1949 to the Late 1970s	Automation and Digitalization between the Late 1980s to the Late 2000s	Virtual Economy since the Start of the 2010s
Organization of Work			
Work Model	Process Management (Taylorism/ Scientific Management Tools) <ul style="list-style-type: none"> standardization and division of labor process optimization and control division of manual and mental work; unskilled, skilled, and highly skilled work hierarchical work organization 	Project Management (Total Quality Management Tools) <ul style="list-style-type: none"> reintegration of tasks focus on intrinsic work motivation self-/cost-responsible management skill-diversified integrated teams flat hierarchy 	Cooperative Action Management (Scrum Methodology / Coworking) <ul style="list-style-type: none"> project-based cooperative action activating self-realization self-organized/self-responsible teams temporary work cooperation matrix organization of work
Dominant mode form of work	production work	service work	Knowledge work (digital work/ virtual project work)
Essential skill requirements	manual skills; professional skills	technical and professional skills; life-long-learning and project management skills	skills involving technology use, project management, self-realization, and multicultural management
Patterns of Work in Space and Time			
Localization of work	centralized company /company establishments	local industrial districts / global company networks (analog)	virtual company network
Chronological Structure of Work Processes	working time (regular 8-10 hours); breaks; leisure time	self-regulated working time	blurring boundaries between working and personal time
Broader Organizational Context			
Production System (Automotive Industry as a Leading Model)	Fordism <ul style="list-style-type: none"> mass production (economies of scale) standardized goods product-specific technology integrating all value chain processes into one organization (vertical integration) urban hierarchical structure: control centers in the periphery; general corporate offices in major national and international cities 	Toyotism (Post-Fordism) <ul style="list-style-type: none"> diversified production of high quality products flexible specialized production just in time production (JIT) lean organization and outsourcing close and cooperative contact between parent firms and subcontractors spacially organized in industrial districts 	Uberism/ Waymoism <ul style="list-style-type: none"> concept of jointly consumed services with the help of virtual systems redefinition of consumer goods (e.g., cars) as services (mobility) on the basis of using a joint action management platform (mediation platform logic) redefines the position of the producer and mediator, consumer and user, while producing new chains and forms of value creation matrix organization of cooperative actor network (increasing complexity)
Spatial Orientation of Production Systems	local	global	virtual

Source: author.

ing diversified, innovative products and services that better meet the demand of the consumer than its competitors. Further the integration of products and services as a selling strategy was another key innovative concept, which used the idea of modularization in the context of marketing. However, the concept of modularization was not just adapted to reorganize the production process in a local context. Companies could also use it to rethink the value chain and reorganize the division of labor on local or international markets. The lean management idea applied to a global context of economic activities lead to the building up of an international network of company structures and the loss of local ties by multinational companies [Fujita, Hill, 1995].

The basic idea of modularization reappears in the framework of project management as concerns the organization of labor. In modularized production, the organization of labor is focused on reintegrating pro-

duction tasks to promote motivation and accountability among employees. Functional specialization within the framework of working groups, either centralized or on a project-by-project basis, independently allocates resources and responsibilities while the division between unskilled, skilled, and highly qualified workers (blue and white collar workers) or managers and subordinates loses meaning. With such transformations, workers begin to take more and more responsibility for the results of their work and increase their productivity. However, this reorganization of labor weakens the hierarchical structure and new instruments of personnel management become necessary. The new management methods focus more on intrinsic motivation of employees and on self-realization instead of company loyalty as the central element of one's attitude towards work.

Essential skill requirements have also changed: demand for manual unskilled and semi-skilled labor has

declined while occupational skilled or professional skilled workers are increasing in demand amid the conceptual transformation of labor and ongoing automation processes. With automation and digitalization, the range of operations requiring highly skilled labor has expanded while the unskilled tasks are increasingly replaced by automated technologies. Furthermore, accelerated technological progress in microelectronics and modularized systems and a more globally connected structure requires more flexibility from the workforce to adapt and acquire new skills throughout one's career, which has given rise to the concept of life-long learning .

In the 1980s and 1990s concepts for labor organization emerged in Western Europe that expanded opportunities for and the responsibilities of works in line with post-Fordism. These concepts are based on automation and digitalization processes that followed the ideas of the modularization and fragmentation of the value creation processes. This transformation led to a substantial shift in skill requirements and in the principles of personnel management. The increase in demand for skilled personnel emphasizing self-realization as the key part of work mentality and has become a key factor for social differentiation. The content of the work has come to the fore on the basis of its subjectification and opportunities for workers to independently determine which work conditions impact their attitude towards work [Beck *et al.*, 1994].

Cooperative Action Management: The Organization Model in the Virtual Economy

The virtual revolution that began with mass use of smartphone technology in the late 2010s has become a serious challenge for the organization of production. Given that this change goes deeper than the aforementioned transformation during the microelectronic revolution, using the automotive industry, one can demonstrate that the entire value chain that existed in the 20th century has been called into question [Rifkin, 2014]. The new technological opportunities offered by worldwide internet communication technology in conjunction with the proliferation of smartphones provides constant access to a virtual environment. This virtual space allows for establishing business models that do not require the purchase of expensive and technically complex goods or services thanks to the concept of shared use. The idea is simple: combine the infrastructure for receiving information and placing orders in a virtual space at any time with an analog service and joint use service as well as infrastructure for maintenance and support with physical and virtual access. This concept stipulates that the consumer will no longer become the owner of goods, this will remain the producer or intermediary, who organizes the good's or service's joint use.

Such an approach can revolutionize the basic value chain because it blurs the lines between the roles of producer, consumer, mediator, and user. It challenges the consumer economy as a result of which there is the need for new cooperation between the traditional industry and the providers of analog and virtual services. In the case of Waymo, the official provider of driverless taxis, self-driving technology was developed as well as a virtual app for hailing taxis. In order to make these taxis widely accessible, Waymo as the developer of technology that enables driverless driving must agree on cooperation with traditional auto producers and suppliers of relevant analog services (providing service stuff and the maintenance work of the driverless cars), the terms of which are discussed behind closed. The results of such talks remain an open question given that it is impossible to say ahead of time how a model of unmanned car sharing will change the usual practice of buying a car. It may be possible however to estimate the upheaval caused in value chains over the course of the 21st century. In the case of Waymo, which operates such a technologically challenging product as unmanned vehicles, it is necessary to build safety infrastructure which does not yet exist. The only way to officially bring unmanned vehicles onto the market is to license unmanned car sharing and create the infrastructure for daily checks with the opportunity for intervention if needed.¹ What we see with this simple example is that the roles of the producer, seller, and intermediary are becoming more diversified and the cooperation network of economic actors will become increasingly more complex .

The novelty behind this business model is the virtual space that offers a broad range of possible applications. It is not limited to consumer goods and services, but allows for the exchange of labor, information, cultural goods, security systems, data evaluation systems, and so on. The digital mediation platform logic [Stampfl, 2016] used by Uber and now by Waymo is just one way to open up the virtual space for the economic activities. Another common method is crowdsourcing [van Delden, 2016], which uses the virtual space to organize resources and virtual communities. Further, the virtual cloud uses this space as a storage and presentation space. The cloud makes information accessible from everywhere in the world and facilitates the sharing of information and other virtual goods [Boes *et al.*, 2014]. Finally, the internet of things uses virtual space to coordinate the work of automated technology around the globe.

The virtual space opens up an area where time and space are no longer fixed coordinates for cooperative action. It permits the connection of individuals around the world without personal costs². We are seeing the decoupling of time and space unfold before our eyes [Giddens, 1990]. This is a crucial moment for understanding the logic of virtual value chains. The

¹ For example, weather conditions can impede the safety of the user and would require the presence of an actual driver.

² However, infrastructure is necessary for open and full access to the virtual space.

virtual space broadens opportunities for autonomous project management aimed at the search for optimal solutions and the coordination of joint activities by independent, geographically dispersed individuals in the short or long term. Goods and services produced in such a joint manner can be exchanged via digital channels and physical products can be distributed through virtual systems of access.

So a question arises about how deeply the virtual space impacts the organization of labor and which new forms of work it stipulates. Before discussing this further, first I want to differentiate between the discussions on the digitalization of labor and the virtual production context, which are often used interchangeably in debates about the future of work.

The digitalization of labor stimulates the further automation of production, which has lately affected not only manual tasks but also knowledge work [Frey, Osborne, 2013; Brynjolfsson, McAfee, 2014; Autor, 2015]. However, if progress in microelectronics and software hardly changed the content of work and production operations as such (sure, applications with big data change, and in some case some functions are completely automated as in the administrative sector), then the development of automation, in particular robotics and artificial intelligence, impact both the content of work and the share of manual tasks within it. Given the great significance of these processes and their role in transforming the production and labor landscape since the 1990s [Rifkin, 1995], note that I will further focus on the reorganization of labor as the integration of production activities into the virtual space, when I speak about the organization of work within the virtual economy in this paper.

The virtual space changes such critical aspects of labor organization as it allows the joint activity of workers, independent from the geographical and temporal coordinates they belong to. Professional teams working in the virtual context may create virtual products (apps, texts, multimedia content and so on) and provide services (software customization, business administration and management, graphic design). Work done in the virtual space is mostly knowledge work and evaluated based on results. From the point of view of labor organization, the virtual space allows more effectively using project management tools than traditional corporate working groups. In this space, it is possible to create temporary interdisciplinary expert groups for the completion of projects, which provides impetus for the creation of new groups to work on subsequent projects.

Working in a virtual context means that individual actors mostly have greater autonomy in defining their own workspace and schedule. However, they also have greater responsibility for the management of the pro-

duction process and communication within a team or compliance with information policy. The virtual production context raises the necessary requirements for and flexibility of workers concerning their technical literacy, project management skills, ability to adapt to constantly changing conditions and work teams over the course of one's entire professional career.

This produces a paradox in that the expansion of opportunities for cooperative action in an "open space" is accompanied by the need to adapt to extremely short-term relationships and maintain flexibility throughout one's working life to continue to operate in this dynamic field. This same paradox can be observed well in the concept of coworking that is applied by a broader community of knowledge worker as a role model for the new form of work.

Coworking can be considered the matrix of a production mentality in an individualized virtual society, which serves to integrate separate (often geographically isolated) creative individuals in a working community quite different from the traditional forms of work organization.. The philosophy of coworking was born in the context of a business model and type of labor organization in the form of a coworking space that has spread quite quickly across Western Europe since 2005. The history of coworking will be illustrated below by some excerpts from one interview with the manager of one of the first such European Co-Working Spaces founded in 2005. This interview was conducted as part of a recent study addressing the question how coworking spaces influence the socioeconomic development of different – developing and developed – regions³.

Are Coworking Spaces a Window into the Future of Work?

Coworking spaces are called the third space [Bouncken, Reuschel, 2018], located between the extremes of the classical office provided by the employer and the home office as a workplace for the self-employed. However, coworking is more than just a third space. It unites a whole range of business concepts and a special culture aimed at meeting the needs of flexible, agile, self-responsible, and creative professionals⁴.

As the first results of the study show, by now several business models of coworking spaces have been developed, which are aimed at solving problems of a certain community such as:

- (1) the requirements of the start-up community to pool resources and to interconnect actors in a professional network context; or
- (2) the shortage of cheap offices and workspaces for the creative community in overcrowded cities; and at least

³ The project is entitled: Coworking Spaces: A new model of organization, business concept, and work. The publication together with Simon Oertel is in preparation. At present we have conducted 14 interviews with coworking space managers in different local contexts and analyzed quantitative data. We made observations of different coworking spaces over the course of one or two months.

⁴ Sometimes they are called digital Bohemians [Friebe, Lobo, 2006], since most of the workers in the digital economy and virtual space are self-employed or freelancers (digital nomads if their work involves travel [Ferriss, 2011])

(3) to pool forces to build up regional socioeconomic development projects in structurally weak regions through the provision of spaces for joint activity (for example, for regional business networks, regional politics, joint social projects, and the professional support of women).

Taken the perspective of the user of the coworking space, coworking addresses the following needs:

- (a) it meet the needs of those isolated in their home office by integrating them into a professional community and local networks;
- (b) it resolve the problem of daily or weekly trips to work and back, thus overcoming the need for an alternative workplace and an opportunity to create working communities in the places of residence of employees.

But all the different business models and user concepts refer to the Coworking Culture as they call the new established organization form "Coworking Space". But what are the basic components of the "Coworking Culture"?

Coworking practitioners say that the concept of the culture was born in about 2005 when in a number of large cities of Western Europe and Northern America, "third space offices" began independently appearing. The term "coworking" was coined by Brad Neuberg, who was a programmer and who opened an alternative office center for non-profit cooperation in San Francisco. His concept especially met the requirements of the agile, energetic professionals working in the digital and virtual community.

An analysis of our project interview data offers a deeper look into the now established community. One interview with the coworking manager of a coworking space already founded in 2005 in a Western European city shed light on the basics of coworking culture. The subsequent quotations are taken from this interview to illustrate the cultural concept that is constitutional for the establishment of the new business and organizational model coworking space:

The idea of coworking, which has gained such traction in Western Europe, adapt the culture of 19th century Viennese coffee houses. This genealogy provides a positive image of the third workspace, which was designed primarily for creative workers in the digital economy.

"In principle humans have always worked in coffee houses. What changes here and now, that is the mobile technology and its opportunities through wireless networks, through portable computers."⁵

"Well, the main things here are laptops and creativity. Creativity in the sense that is work outside the routine ... Sometimes there is also an element of a unique type of leadership."⁶ (Manager of one of the first coworking spaces in Western Europe)

A deeper analysis of the interview data shows that the base concept of coworking offers a new approach to the use of the workplace, which becomes possible thanks to digital technologies and the virtual world.

"In my view, coworking is a culture for the organization of cooperation. It is possible to cooperate in various spaces, not solely the office

And I do have the so-called third spaces in mind, they do fulfil a social aspect, thanks to digitalization they have liberalized work: people can work wherever they please: in coffee shops, restaurants, libraries, lounges of hotels, and lobbies. There are coworking centers even in shopping malls..."⁷

"... but not every culture is suitable for every space. Their corporate culture changes depending on the contingent... There have been several cases when teams were called back to the company's offices... Some people quit from their jobs because they weren't ready for that. When you understand that there is no way back, something must be done."⁸

In addition to the reinvention of the workspace, coworking culture also changes the nature of everyday work through interdisciplinary cooperation and the formation of local organizational and virtual structures. At the core of this concept is the design principle: joint project work. At the same time, coworking culture contributes to a rise in tolerance and development of life and work skills in a heterogeneous and complex environment.

"I believe that what we see here and now in the coworking space is the future of work. This here is effectively a pioneering feat, which can be seen in the details."⁹

"... Everything started with the freelancers and start-ups, which were used to work in projects. And now we see that the project form had become the norm

⁵ Original Citation in German: "An sich haben Menschen schon immer in Cafés gearbeitet. Was jetzt hier anders ist, ist dieses mobile und technologisch Mögliche durch WLAN-Netze, durch tragbare Laptops".

⁶ Original Citation in German: "Na, es ist das Laptop und der Kreative. Und Kreative aber im Sinne von Nichtroutine. (.) auch gewisse Führungsebenen sein. ...".

⁷ Original Citation in German: "Coworking ist meiner Meinung nach eine Kultur, die das Miteinander von Menschen organisiert. Das kann ich auf verschiedene Räume ausbreiten, das muss aber nicht das Büro sein ... Und ich habe die sogenannten dritten Orte, die einen sehr sozialen Aspekt oft erfüllen, wo ich aber durch die Befreiung, Digitalisierung wirkt ja wirklich sehr befreiend auf Arbeitsweisen, hingehe, weil ich selber entscheiden kann, wo ich arbeiten möchte. Und das können die Cafés und Restaurants sein, die Bibliotheken, Lounge eines Hotels, eine Lobby. Es gibt Einkaufszentren mit Coworking Spaces ...".

⁸ Original Citation in German: "... nicht jede Kultur passt in jeden Raum. Und Räume prägen. Und wer hier reingeht, dessen Unternehmenskultur wird sich ändern. ... Und wir haben schon wirklich mehrere Fälle gehabt, wo, wenn Teams zurückgerufen wurden in die Zentrale, (.) einzelne Mitarbeiter gekündigt haben, weil dieser Schritt ihnen nicht mehr möglich war. (I: (Lacht)) Wenn man einmal einen Erkenntnisstand erreicht hat, dann kann man auch nicht zurückgehen. ... Und es gibt Leute, die dann auch die Konsequenz haben: Ich gehe nicht mit".

⁹ Original Citation in German: "Ich glaube, dass wir im Hier und Jetzt in Coworking Spaces das sehen, was wir als Zukunft der Arbeit verstehen. Es ist quasi hier ein Pioniertum. Und das drückt sich im Kleinen aus".

of new work. I would call that a generally positive process. Well, viewed in that light, it was a fortunate, evolutionary development, and today project work has become the standard especially in the international context. We see now how something familiar to us for years spreads into other areas and into traditional work organization: work is not tied to a particular place, there's no need to go to the office, you don't need to work at home, that is the core of co-working. It creates one's own space for work, and now it is trusted work place, trusted flex-time that arrived slowly really in the larger companies and is getting implemented there. Often one is little wary with the situation, of course there are regularities, that are old-fashioned. In principle, thinking about work has not changed for 160 years. I am not a specialist and never studied this topic, but my feeling is that nothing has changed ... but it has to..."¹⁰

"Conflicts and friction do occur. For example, a start-up of one of our users produced products for vegans, and its owner was himself a vegan. Next to him was a lady on a low carb diet, she ate roasted chicken and salad. In the end bridges had to be built between them, to help them understand each other. Here it was necessary to learn tolerance, to learn to accept diversity. I believe that that is our advantage over a classic office. Of course, everyone is different, but usually people tend to hire those who are like them, who are close to them. In it turn, the activity of a company determines the profile of its employees so that they as a rule have a lot in common. They all received similar degrees, due to which the company lacks the diversity it seeks. Of course, a law office needs lawyers, yes? Nevertheless it can be interesting for them to converse with representatives of other professions."¹¹

Conclusion

Returning to our seminar, we will ask the students, what they have in mind when they claim that in the future they would not work, but instead would devote themselves to meaningful activity.

They told us a lot about their attitudes toward work. The term "work" implies for them the performance of standard operations in a heterogeneous manner. Recently, this concept has been actively discussed by

sociologists and the public, who recognize the fundamental nature of the transformation of work and the environment. Thanks to automation and digitalization, manual labor is increasingly replaced by knowledge work, which leads to an increase in the demand for professional skills and at the same time increases the polarization between those who still perform manual work and those doing knowledge work. [Hirsch-Kreinsen, 2016]. With the virtualization of the working context over the latest decade, the labor of some workers has lost its connections to concrete organizations or places. The existing institutional format is called into question along with the current production mentality both for individuals and for the general working population.

And additional work is no longer a prerequisite for monthly income. It has become a personal, individual matter and is more greatly determined by the personality of the work than before. What we learned over the course of the presented analysis and the reflection of coworking culture is that in the future self-responsibility in a diversified environment will no longer be the prerogative of those with creative abilities and independent mindsets. "New" concepts of labor have already spread into the traditional working contexts. The further digitalization, automation, and virtualization of the production environment will lead to the erosion of the boundaries between companies and other basic forms of labor organization characteristic of Fordism and post-Fordism era. This is accompanied by the rising significance of various forms of mediation and coordination of joint activities by independent actors. First of all there are traditional forms of mediation like agencies, which provide the services of various specialists, and temporary employment services that have spread intensively in the post-Ford era. Further Mediation platforms are developments of new mechanisms for organizing and controlling production activities in the virtual space (clickworking). Finally, coworking centers, innovator houses, and other formats offer independent self-responsible working individuals workplaces, access to infrastructure for joint use, and opportunities for participating in professional networks. This, however, is done without the social benefits provided by the traditional employer.

¹⁰ Original Citation in German: "die Entwicklung hat einfach etwas früher hier angefangen mit den Freelancern, mit den Startups, die waren Projektarbeit gewöhnt. Und dann sehen wir jetzt, dass Arbeit allgemein in Projekten gedacht wird. Also so gesehen, war es die glückliche, evolutionäre Entwicklung, dass das in Coworking Spaces natürlich früher anfang und jetzt halt zum Standard in der gesamten Arbeitswelt zu sein scheint oder zu werden, vor allem international. Wir sehen Sachen, die für uns seit Jahren selbstverständlich sind, das ortsunabhängige Arbeiten, das Nicht-ins-Büro-Gehen, das Nicht-zu-Hause-Arbeiten, das ist der Kern des Coworking. Es ist ein eigener Ort der Arbeit, der jetzt in Sachen von Vertrauensarbeitsort, Vertrauensarbeitszeit langsam Zugang eigentlich in die Großunternehmen findet und da implementiert werden. Oft fremdelt man noch, weil wir haben natürlich auch Regularien, die sehr alter Prägung sind. Also man kann fast sagen, seit 160 Jahren hat sich der Blick auf Arbeit, (.) und das sage ich als Nichtwissenschaftler, der sich nicht damit beschäftigt, gefühlt nicht verändert."

¹¹ Original Citation in German: "Wir sehen aber auch die Reibungspunkte. Also wir hatten mal einen Mitarbeiter eines/ Sein Startup hat vegane Produkte hergestellt und er selber war auch Veganer. Und neben ihm war eine Frau auf Low-Carb-Diät, die da Brathähnchen und Salat gegessen hat. Und die beiden mussten wir auch zusammenbringen, dass die sich verstehen, (Lachen beide) weil man lernt hier halt noch Diversität auszuhalten kennen. Das ist, glaube ich, auch der Vorteil gegenüber einem Büro. Da sind zwar natürlich alle Menschen auch unterschiedlich, aber zum einen stellen Personaler gern Menschen ein, die wie sie sind. Das ist fast schon unbewusst. Und zum anderen durch (.) das Aufgabenfeld einer Firma werden oft immer die gleichen Leute eingestellt. Die haben alle das gleiche studiert. (I: Okay.) Ja? Und diese Diversität können Firmen dann/ die wollen das, aber sie können das nicht abbilden, ja? Weil als Rechtsanwaltskanzlei brauche ich Rechtsanwälte (Lacht) natürlich, ja? (Lacht) Und trotzdem kann es interessant für diese Leute sein, andere Impulse aus anderen Branchen zu haben."

The rising significance of intermediaries increasingly calls into question the postwar institutional environment based on hired labor at companies and other organizations. Many elements of this environment, which were once considered important social achievements (legislative protection of workers' rights, an official social security system, the widespread use of industry agreements, etc.) are now perceived an entirely different way. As demonstrated by debates on deregulation in the 1990s, even politicians focused on social issues consider legislation on the defense of workers' rights

and participation in professional unions an obstacle for the functioning of markets, which among other things lead to the legalization of market-based employment forms such as agency and fixed term labor agreements [Helfen, 2016]. What we observe now is the further liberalization of the labor market that is driven by the accelerated technological process. This calls into the fore the issue of reintegrating these processes into an institutional structure that combines the advantages of technological progress with social solidarity in a virtual community of intensive work.

References

- Autor D.H. (2015) Why are there still so many jobs? The history and future of workplace automation. *Journal of Economic Perspectives*, vol. 29, no 3, pp. 3–30.
- Beck U., Giddens A., Lash S. (eds.) (1994) *Reflexive Modernization*, Cambridge: Polity Press.
- Bell D. (1999) *The Coming of Post-Industrial Society*, New York: Basic Books.
- Boes A., Kämpf T., Langes B., Lühr T., Steglich S. (2014) *Cloudworking und die Arbeit der Zukunft. Kritische Analysen am Beispiel der Strategie „Generation Open“ von IBM*, Kassel: BTQ Kassel.
- Bouncken R.B., Reuschel A.J. (2016) Coworking Spaces: How a phenomenon of the sharing economy builds up a novel trend for the workplace and entrepreneurship. *Review of Managerial Science*, vol. 12, pp. 317–334.
- Brynjolfsson E., McAfee A. (2014) *The Second Machine Age*, New York: W. W. Norton & Company.
- Doeringer P., Piore M. (1972) *Internal Labor Markets and Manpower Analysis*, Lexington, MA: D.C. Heath and Company.
- Ferriss T. (2011) *The 4-Hours-Week. Escape the 9-5 live anywhere and join the new rich*, London: Random House.
- Forgacs D. (1988) *The Gramsci Reader. Selected Writings*, New York: New York University Press.
- Frey C.B., Osborne M.A. (2013) *The future of employment: How susceptible are jobs to computerization* (Working Paper), Oxford: University of Oxford.
- Friebe H., Lobo S. (2006) *Wir nennen es Arbeit*, München: Heyne.
- Fujita K., Hill R.C. (1995) Global Toyotaism and Local Development. *International Journal of Urban and Regional Research*, vol. 19, pp. 7–22.
- Giddens A. (1990) *The Consequences of Modernity*, Oxford: Basil Blackwell Press.
- Hall P., Soskice D. (eds.) (2001) *Varieties of Capitalism. The Institutional Foundations of Comparative Advantage*, Oxford: Oxford University Press.
- Helfen M. (2015) Institutionalizing precariousness? The politics of boundary work in legalizing agency work in Germany, 1949–2004. *Organization Studies*, vol. 36, no 10, pp. 1387–1422.
- Hirsch-Kreinsen H. (2016) Arbeit und Technik bei Industrie 4.0. *APUZ*, vol. 66, no 18–19, pp. 10–16.
- Jessop B. (1992) Fordism and post-Fordism: A critical reformulation. *Pathways to industrialization and regional development* (eds. M. Storper, A.J. Scott), London: Routledge, pp. 42–62.
- Kern H., Schumann M. (1984) *Das Ende der Arbeitsteilung? – Rationalisierung in der industriellen Produktion, Bestandsaufnahme, Trendbestimmung*, München: C.H. Beck Verlag.
- Krafcik J. (2018) Waymo One: The next step on our self-driving journey. *Medium*, 05.12.2018. Available at: <https://medium.com/waymo/waymo-one-the-next-step-on-our-self-driving-journey-6d0c075b0e9b>, accessed 08.02.2018.
- Laris M. (2018) Transportation Waymo launches nation's first commercial self-driving taxi service in Arizona. *Washington Post*, 06.12.2018. Available at: https://www.washingtonpost.com/local/trafficandcommuting/waymo-launches-nations-first-commercial-self-driving-taxi-service-in-arizona/2018/12/04/8a8cd58a-f7ba-11e8-8c9a-860ce2a8148f_story.html?noredirect=on&utm_term=.954585aba276, accessed 30.01.2019.
- Lutz B. (1989) *Der kurze Traum immerwährender Prosperität: eine Neuinterpretation der industriell-kapitalistischen Entwicklung im Europa des 20. Jahrhunderts*, Frankfurt am Main: Campus Verlag.
- Lutz B., Sengenberger W. (1974) *Arbeitsmarktstrukturen und öffentliche Arbeitsmarktpolitik: eine kritische Analyse von Zielen und Instrumenten*, Göttingen: Schwartz.
- Piore M.J., Sabel C.F. (1984) *The Second Industrial Divide: Possibilities for Prosperity*, New York: Basic Books.
- Rifkin J. (1995) *The End of Work*, New York: Putnam Publishing Group.
- Rifkin J. (2014) *The Zero Marginal Cost Society. The Internet of Things, the Collaborative Commons and the Eclipse of Capitalism*, New York: Palgrave Macmillan.
- Schilling M.A. (2000) Towards a general modular systems theory and its application to inter-firm product modularity. *Academy of Management Review*, vol. 25, pp. 312–334.
- Stampfl N. (2016) Arbeiten in der Sharing Economy. *Vierteljahreshefte zur Wirtschaftsforschung*, vol. 85, no 3, pp. 37–43.
- Taiichi O. (1988) *Toyota Production System*, Cambridge: Productivity Press.
- Tapscott D. (1998) *Growing up Digital: The Rise of the Net Generation*, New York: McGraw-Hill.
- Thelen K. (2012) *How Institutions Evolve. The Political Economy of Skills in Germany, Britain, the United States and Japan*, Cambridge: The Cambridge University Press.
- van Delden C. (2016) *Crowdsourced Innovation. Revolutionizing Open Innovation with Croud sourcing. Insights and Best Practices from Innosabi*, München: Innosabi GmbH.
- Wood S.J. (1991) Japanization and/or Toyotism? *Work, Employment and Society*, vol. 5, no 4, pp. 567–600.
- Zuboff S. (1988) *In the Age of the Smart Maschine. The Future of Work and Power*, New York: Basic Books.