Cooperation or Competition?
New Models of Work Organization in the Information Society

Bettina-Johanna Krings
Forschungszentrum Karlsruhe GmbH
Institute of Technology Assessment and Systems Analysis (ITAS)

The Scope of the Investigation

The scope of the investigation upon which the following hypotheses are based was defined in connection with the EU-project, “The Information Society. Work and the Generation of New Forms of Social Exclusion” (SOWING), which was concluded at the beginning of the year, and in which research groups in eight European countries took part.

The study’s main interest was concentrated on the question, which relationship exists between the introduction of Information Technologies (IT) and changes in work organization. The assumption that these changes can lead to massive effects on the labor market and at the same time to new forms of social exclusion, was tested with the help of comprehensive quantitative and qualitative surveys in a research program of three years’ duration (Schienstock et al. 1999).

The project’s basic theoretical assumptions foot on scientific observations which have shown that the complexity and the extent of the data flow in society are growing further, and are spreading increasingly onto the global market. In the meantime, multimedia technology has made it possible to communicate with one another and to exchange information by means of various combined media unbelievably quickly and in high quality across any distance (Bosch 1997). The express purpose of introducing IT into business enterprises is, to put it short, to increase the flexibility, the speed and the productivity of working processes by accelerating in- and external supply-, processing- and distribution operations.

This method can be judged as a further phase of rationalization of the work process, which has its effects on manufacturing, as well as on business-to-business (B2B-) services. With regard to the organization of work, changes result, which as early as the beginning of the 90’s have led to new job profiles and to new forms of organization of work. This process hasn’t yet come to an end. The key term in this connection is the “globalization of work” (Altvater/Mahnkopf 1997), which means a further differentiation of occupational structures and, also in future, problems on the job market.

The results of the quantitative and qualitative surveys in the project named above confirm these general observations, which could be made in all of the eight nations taking part in the study. They can be summarized in the form of general and preliminary results in the following statements (Bechmann et al. 2001):

1. Information Technologies play an important role in the continuity of the rationalization process. The aspects of flexibility, speed and productivity in the working process experience – particularly in the services sector – a new (positive) re-evaluation.
2. This development produces new forms of employment. The course as well as the extent of the change is quite strongly dependent on the branch of industry concerned, the use made of these technologies, the integration into traditional patterns of organization, as well as on the extent of global connectivity.

The consequences for work organization can, in this case, be quite different, and are, naturally, quite strongly influenced by the general cultural and socio-political conditions in the various nations. In the overall view, the gradual permeation of the new work structures could be ascertained, which indicate – within the framework of organizational changes – the transition from a formal to an informal organization of work. The key term for this transition is the “flexibilization of employment“, which primarily affects the temporal and qualitative demands on work. According to the perspective of research, differences as well as similarities could be made out. The question of the similarities points up, however, – above all, in branches with extensive use of Information Technologies – certain trends of work organization, which can be found in all of the countries as a sort of leitmotif. From the companies’ viewpoint, the aspects of “high occupational qualification“, “flexibility“, “responsibility“ and “life-long learning“ are named as the most important aspects of the new forms of work organization, seen against the background of increasing competition on the markets.

These aspects are considered to be the central contents of new job profiles, which would have to be organizationally supported and guaranteed. The conditions for hiring and the methods of recruiting new employees are oriented to a great extent on the aspects of “occupational qualifications“ and “flexibility“. According to the responses given in all of the firms studied, it is qualified to highly qualified young men and women, who are willing to comply with the occupational demands flexibly and with personal commitment, who are sought.

These trends, which had been observed in the companies, correspond to the developments described in the pertinent industry-sociological research literature. The changes in work structures concern in this case primarily qualified and highly qualified job profiles, and can be summarized to the effect that – on the one hand – “flexible elements“ are incorporated into the organization of work; on the other hand, the emphasis on flexibilization of work amounts to an individualization of work structures (Hielscher/Hildebrandt 2000, Bechmann et al. 2001).

This distinction was also made in the theoretical conception of the project. For this reason, the flexible elements of work organization were studied internally as well as externally. Outside the companies, aspects such as outsourcing, subcontracting, geographical relocation of individual business segments, as well as new strategic alliances between companies were analyzed. Within the firms, – and this question is of importance for the present article – the aspect of flexibilization comprises the introduction of new concepts of management (lean management, emphasis on personal responsibility), new working-time patterns, project- and team-oriented organization of work, as well as new demands on the employees’ qualifications.

These changes not only exert considerable influence on the contents and organization of employment, but also have weighty implications for the employees’ private relationships. For that reason, the relationship and the interaction between gainful
employment and unemployment, between “work” and “leisure” shifts more clearly into the foreground, which leads to a new individual management of the daily routine (Hielscher/Hildebrandt 1999). Due to, above all, the continuously increasing professional activity of women, and due to changing values in the younger generations, the – in most European nations – prevalent separation of household- and occupational work is eroding, which also leads to significant socio-cultural changes.

“Flexible“ Aspects of Work

In the SOWING project, two basic distinctions were first made: the organizational changes which affect the structure of work (coordination, supervision, levels of hierarchy, etc.), and those which affect the job profiles (qualification, demands on content, recruitment, etc.). The former are judged from the viewpoint of the companies (organizational level), whereas the latter are seen from the perspective of the employees (workplace level). But the main focus of the investigation was placed – in the framework of the project – rather on the systemic representation of organizational changes, and less on a personnel-oriented approach. Nonetheless, the results show that the transitions are gradual, not clear-cut, and that the perspectives as well as the open questions – by continuing rationalization – are directed primarily at the changes in job profile.

In general, the final analysis shows that, with respect to organizational changes in the Stuttgart region, there are striking differences between the various branches and sectors. This is also reflected in the social scientific literature, in which such concepts as “lean management“ or “decentralized work organization“ had been discussed as early as the beginning of the 80’s, in particular, for the production area. The introduction of ICT-technologies has radically changed – in particular – services occupations as well as certain branches; in these cases, far-reaching changes in work organization, which are being discussed in the debate on future forms of employment (Beck 2000, Bosch 1998, among others), are expected for the near future.

Our evaluation has shown that the dynamics of rationalization in the various branches take on a specific form. In the individual areas, the use of technology and of labor – in spite of a general trend to systemic rationalization – have different levels of relative importance for the respective processes. For instance, with the help of technology, routine chores in administrative divisions are – as ever – being automated, which is problematic for the employees in such areas, because the remaining jobs offer, on the one hand, almost no career perspectives, and because even these, on the other hand, are threatened by job pruning. In customer-oriented services, the use of ICT aims above all at improvement of the quality of advice in view of increasing demands on the part of the customers. In the long run, management will have to rely on highly qualified employees, and re-professionalization will be promoted, which will lead to raising the level of qualifications on the one hand, and to increased demands on the employees’ performance on the other (Oberbeck/Neubert 1992). In the following, the flexible aspects of employment will be discussed.

From the Supervision to the Coordination of Work

“Coordination of work“ means in this context, organization of the work structure, i. e., the company level of work organization. This encompasses criteria such as the
organization of monitoring, resp., the functional significance of hierarchies within the firms. The discussion on control instruments revolves in this case around the question, whether tendencies towards decentralized corporate organization exist, which can replace centralized, hierarchically structured internal organization. The hypothesis that, in the long run, decentralized action patterns will prevail, is not confirmed by our study. The empirical results show, on the contrary, that centrally organized management concepts predominate.

Nonetheless, in some branches, certain tendencies toward new control mechanisms can be observed. They show quite clearly how the coordination problem is solved under the conditions of a relative autonomy for the employees, as well as the absence of strict, formal bureaucratic supervision. In the first place, formal supervision is replaced by direct communication between the employees and management, which is based on an individually tailor-made employment contract. This contract is formulated on hiring. It defines the working conditions, the demands on the work to be done, and career development, as well as the salary or wages. These stipulations are, as a rule, examined in an annual procedure and, if need be, revised.

In the second place, the employees take part in the definition of goals and of fields of activity, i. e., they are normatively much more strongly bound into the company’s interests and objectives. Both aspects point very clearly in the direction of the concept of individual “personal responsibility“, which is supposed to extend into the respective working areas and to have a motivating effect on work.

Other, “softer“ methods could also be observed, in which the employees took part in the coordination of their activities, as, for instance, the draft of a common vision (corporate culture), or the institutionalization of an informational platform for long-term planning. In this last arrangement, the interaction between the employees and the company, which in the literature is known as “discursive coordination“, stands in the foreground (Schienstock et al. 1999: 71).

This type of coordination could be observed above all in the so-called “global players“ – companies, in which traditional control mechanisms had been replaced by so-called “agreements“. The differences between large and small businesses are, in this case, obvious: in the case of internationally active concerns, direct social control is no basis for coordinating operations, but can still be important in many small businesses.

In general, we can state that the project’s results point up a mixture of traditional and new control mechanisms in the companies, which are weighted with varying degrees of importance.

From Regular Working-Hours to the Individual Organization of Work

The term “flexibilization of work“ was introduced primarily in connection with the possible technical applications of ICT and is discussed from a number of divergent viewpoints. In particular, the dissolution of the traditional temporal and spatial structures is meant, which is supposed to lead to completely new forms of employment. But such forms as project- or team-oriented work also lead to flexible work organization, which is to be scrutinized more closely below. These employment models lead to new demands on occupational profiles. The aspects of “qualification“ and “new demands“, in particular, are being re-evaluated in the process. These aspects are being treated on the workplace level, because their results and consequences for new socio-cultural structures of work can be demonstrated there.
“Temporal flexibilization” means the – more or less – flexible planning of working hours, whereby this can result in quite different solutions. Models such as part-time work, or reduction of working-hours, shift work, weekend work, and job-sharing can be counted among these forms of work. These models aren’t new – in certain branches as well as in manufacturing, they have long since been an element of the organization of working hours. But nonetheless, some evidence for new methods of temporal flexibilization of work which can be traced back to the use of new ICT could be ascertained in the study. Teleworking, for example, has developed in some countries into a widespread form of employment, which takes the companies’ interests as well as the employees’ time-needs into consideration. In contrast to the other nations participating in the study, teleworking in Germany is done by only a marginal share of the gainfully employed. This also holds true for the Stuttgart region.

Above all, women with children make use of the opportunities for flexibilization of working-hours, in order to build a bridge between their occupation and their family. Various studies have shown, however, – particularly in the case of teleworking – that this form of employment can lead to a great deal of stress for women, because they can do this type of work as a rule only evenings, at night, or over the weekend (Huws et al. 1996, Geideck/Hammel 1997, Hornberger/weisheit 1999).

Temporal flexibility corresponds to a high degree with the companies’ ability to react quickly and adequately to market demands. This rapid and spontaneous reaction to certain changes on the market has, in the meantime, been translated into action as an internal principle which the employees have to follow in the form of a certain temporal availability. In the study, differences between the various sectors were found. While far-reaching demands on temporal availability met with a certain resistance among the employees in the manufacturing area, these same demands were seen in different administrative and creative fields rather as a new occupational codex. Here, fixed working-hours, for example, had often been replaced by digital attendance recorders, which enable the employees to organize their working-hours freely, according to the necessities of their work.

In summary, we can state that forms of temporal flexibilization are also constituents of the Fordistic industrial model – the transition to a new model of production lies in the fact that the structure of working-time is subject to a process of de-regulation. A specifically new quality of the flexible model of work can be seen in the fact that (supervised) presence at the workplace is no longer decisive, but rather the punctual output (Willke 1999:89). This applies above all for employees in highly qualified occupations, and has been able to gain ground along with project-oriented work and teamwork as a component of modern management concepts. This form of work organization could be observed in the present study in qualified services occupations as well.

The flexible potentials of IC-technologies make various paths of development possible. As universally applicable technologies, they are just as useful for organizing integrative as for decentralized activities, and offer, on the whole, enormous leeway for organization. The implementation of IT-solutions in corporate organizational concepts is, in principle, characterized by openness and provides great freedom of action. This freedom is determined to a great extent by the respective corporate goals, the company’s internal traditions and management’s relationship to the employees, as well as by new
demands placed by their economic environment and how these are judged within the company (Goldmann 1993).

From Hierarchically-Organized to Project- and Team-Oriented Work

Project- and team-oriented work as a new quality of work organization is acknowledged, in particular, in the literature on employment of women in the framework of the conditions for new forms of work and of organization. These forms are established, above all, in skilled service occupations with a pronounced customer orientation. They can be combined with a certain degree of spatial and temporal flexibilization, and set the mastering of new and additional demands in the foreground. As a rule, work organized as project- or teamwork is bound to demands on occupational competence (contents of the work, tasks, work organization), methodical competence (learning to handle new instruments), as well as social competence (new roles, new colleagues) (Wieland 2000:32).

In companies making use of teamwork, more complex systems of organizing working hours are now being introduced. Planning of working hours is no longer done by the superior, but by the team itself; this results in a deviation from the practice of rigid schedules. The colleagues’ wishes can, to a certain extent, be taken into consideration in work scheduling, which can be an advantage for women with familial responsibilities. Group work concepts, or other forms of teamwork provide, as a rule, more opportunities for career development, because the areas of responsibility are broadened, and more complex duties are delegated to the employees. The opportunity is opened, by active individual committment, to rise into positions with considerable areas of authority (Goldmann 1993).

In the literature, this trend is described in particular under the aspect of the “self-reflectiveness of work”. The term means the internalization of supervision in the individual fields of operation, for which each employees is personally responsible. This policy ensures, on the one hand, control of the quality and productivity of work; on the other hand, new forms of coordination among colleagues develop, which are no longer set down by regulations, but are determined by the continuous orientation on market demands, on the colleagues’ needs, and on the company’s objectives.

The trend to self-reflectiveness of work is pronounced in companies which have oriented their organizational structure on a concept of self-regulation. The fields of operation and projects are presented to the employees or to the teams; at regular intervals, the employees’ performance is evaluated and estimated for the corporation as a whole. This means that the – in some cases – quite far-reaching individual autonomy is not only founded on self-assessment, but is subject to continual inspection. Self-regulation is itself subject to social control within the team as well as to the company’s demands.

From Vocational Education to Life-long Learning

In all of the countries taking part in the project, a general trend towards rising demands on qualifications and education could be observed. In the sectors and branches in which unskilled and semi-skilled workers are employed, a gradual loss of jobs could be observed. The reason for this decline lies in the continuous use of Information
Technologies, which – in the long run – take over routine chores and make human work obsolete.

The growing importance of formal qualifications is, however, only one aspect of the changes in employment. Due to project- and team-oriented working methods, organizational talent, the aptitude for social communication, as well as the ability to develop problem-solving strategies are – besides IT-competence – important preconditions for a successful working life. Furthermore, a high degree of commitment, as well as the readiness to train oneself further continuously is expected. The companies differ only in the fact whether they offer internal further education courses, or leave it to their employees to freshen up their knowledge on their own initiative. This applies in particular to courses in the field of software training. The importance of the so-called “learning on the job“ is strongly emphasized on the part of the companies, and, in this case, also means IT-skills.

Especially in firms in which the concept of self-regulation is represented and is put into effect as a form of organization, very high demands are set on the employees’ flexibility and willingness to learn. This leads to the situation that – when new employees are recruited – young, highly qualified women and men are preferred. Age and qualification have become, in this sense, decisive conditions for hiring. Even in the middle and upper echelons of management, both of these criteria, as well as personal characteristics, such as creativity, initiative and the willingness to accept responsibility have, in the past five years, become important presuppositions for the start of a career.

Besides the introduction of the new Information Technologies, the changed market conditions, in particular, can be made responsible for the re-evaluation of the job- and occupational profiles. In many respects, these profiles comprise a higher degree of autonomy and freedom of decision. The interviews have shown, however, that this doesn’t always amount to an improvement of working conditions, because the employees, as a rule, work under the stress of pressure of time as well as the pressure to succeed in making the right decision. Furthermore: the system of limited employment contracts is increasingly gaining ground, especially in companies which have carried out internal reorganization – which reinforces the trend to the employees’ personal responsibility on the job.

In summary, a rise in the demands on formal qualifications as well as social competence, which are negotiated with the employers in the form of individualized “agreements“, can be observed in all of the project-countries. These agreements annul, as a rule, collectively negotiated working conditions, which, on the one hand, leads to a weakening of the labor unions, and, on the other, makes the negotiation of collectively bargained workers’ rights nearly impossible.

**The Outlook:**

**Insecurity versus Participation within the Framework of the Occupational Biography**

The trends described above indicate a change in employment relationships which can certainly be designated as an *individualization* of work. This development is characterized by the following features:
The individual management of daily work is changing. The flexible aspects of work lead to relatively open working conditions, i.e., the basic conditions are no longer set down as legally binding, the demands and, concomitantly, the contents change; further, qualification requires in particular social and cultural competence from job applicants.

The ideal of secure, life-long (male-oriented) employment as a guarantee for security, continuity and integration is being replaced by a model based on contingency. This model is founded on individual achievement potential as well as on the employees’ readiness to let themselves be flexibly involved in new situations.

The occupation is intertwined to a great extent with the biographical identity. The temporal and material intensity of work has to be coordinated with everyday life and with one’s biographical planning more intensively than ever. This affects, above all, the daily routines of women who are trying to arrive at a compatibility of career and family.

The successful management of daily work and everyday life is based increasingly on the capacity for reflection of one’s own orientations, values, and the self-organization of biographical developments (Wohlrab-Sahr 1993).

Perspectives of career development are turning into an achievement which has to be personally accomplished and personally answered for. They are increasingly being seen as a personal decision, are therefore individualized, and are attributed to the individual as insecurity or risk (Wohlrab-Sahr 1993, Born/Krüber 1993, Behringer 1998).

These developments take place in the course of long-term processes. Especially for young and qualified men and women, they offer attractive career opportunities as well as spheres of activity which open possibilities for creative and professional self-realization.

Which opportunities for participation do these trends offer? Can they also be seen as a chance for greater freedom of action within the framework of occupational and biographical planning?

According to the perspective, the estimations can differ greatly. In conclusion, however, four in their tendency critical aspects, which are being discussed with regard to the individualization of work will be noted:

- Evaluation of the project’s results has shown that allocation conflicts on the job market will intensify in the future. In particular, unskilled and semi-skilled workers as well as older people are held to be unemployable.
- The possibilities of using the new technologies have continued the process of rationalization within the business enterprises, which has led to an acceleration and intensification of work. This has led to increased stress for the employees. According to sector and branch, this situation is perceived differently by different individuals.
- Because of the close connection between biographical and career planning, “planning stress” weighs upon the individual employee, and is no longer relieved by the normality of an institutionalized curriculum vitae. This brings consciousness of the risks connected with the private relationships entered into to the fore (Wohlrab-Sahr 1993: 71). Occupational risks are individualized: in Germany, this has led to a pronounced reticence regarding long-term commitments made necessary, e.g., by children.
The new paradigm of employment is effectiveness and competition, which directs the perspective increasingly towards individual opportunities and possibilities, and less in the direction of collective “agreements“.

The trends within the occupational structures point in the direction of an individualization of insecurity and an openness of careers. For this reason, career planning is being increasingly intimately interwoven with biographical planning. The ideal of the institutionalized career is in the process of radical change, which – in the long run – will lead to social and cultural changes on the job as well as in private life. These findings confirm the tendency that the importance of a remunerative occupation as “material for the network of social relationships“ (Willke 1999) will most likely increase further. Through their work, men and women find their social identity. In our civilization, personal self-realization is almost entirely bound to an occupation, which can also be demonstrated empirically on the high rate of working women. Work remains pivotal for everyone’s individual life planning. If it turns into a scarce resource, then the dynamics of increasing expectations on performance, individualization and isolation will intensify.

The trends which have been ascertained in the course of the project describe the implementation of new working-methods, which are judged quite differently by the various experts. On the one hand, these methods offer attractive career opportunities for a number of qualified women and men, and open new and multi-facetted perspectives on future models of work. On the other hand, they create for many people new forms of risk or “precariousness“ (Offe 1998), which means a measure of impending insecurity for further participation in occupational life. A person’s participatory status can become precarious, whenever irregular or unprotected employment has to be accepted, or even obvious long-term unemployment occurs.

These developments are, at present, being flanked by a cutback of social welfare services, and the weakening of social consciousness, not only in social security, but also in education and training. The traditional political fields of collective agreements, such as, for example, the industry-wide collective agreements, among other things, are being undermined by these trends, resp., such strategies are no longer adapted to the actual situation on the labor market (Offe 1998, Sauer 1999).

As regards the question whether the new working-methods lead to cooperative or to competitive action patterns, the results of our study indicate a tendency towards competitive structures within the dynamics of the working process. As long as no strategic option in social and economic policy aims at the restoration of the relationship between productive and distributive integration, resp. the proliferation of unemployment is tolerated, so long will the economic logics of the job market determine individual chances in life, the institutional framework and social integration.

Notes

\(^i\) Cf. for detailed information, as well as the national studies within this project: http://www.uta.fi/laitokset/tyoelama/sowing/sowing.html.

\(^ii\) Both of these statements hold true for all of the nations included in the study. Further remarks are based on the results of the German research group, which carried out its surveys in the Stuttgart region (Bechmann et al. 1999, Frederichs et al. 2000, Bechmann et al. 2001).
In Germany, these developments have led to a dramatic drop in the birth rate. One assumes that a third of all women born in the year 1965 will remain childless (Süddeutsche Zeitung No. 84, April 10th, 2001, p. 11).

Teleworking is regarded as a sort of “exported” workplace, which establishes itself through a lasting functional and topographical relocation outside the company’s facilities.

Claus Offe defines in this case two different types of precariousness: in the first place, the precarious type of employment relationship; in the second place, the distributive status due to “deficits in income, living space, health services and other components of social wages” (Offe 1998: 374). These, however, musn’t necessarily coincide.

Bibliography:


