# ICT, flexible working and quality of life

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Flexibility and technology are key-words in many approaches to the future of work. Flexibility appears as a portfolio word, including flexible organisations, flexible markets, flexible work patterns. Technology mainly refers to the new wave of information and communication technology (ICT), including Internet-based communication and transaction systems, mobile devices, computer integrated telephony, groupware, workflow, multimedia, etc. Flexibility and technology are supposed to shape major trends in the evolution of quality of work and quality of life in the upcoming "information society" or "knowledge society".

This paper deals with three questions:

−   How does ICT contribute to the expansion and diversification of flexible work practices ?
−   What are the impacts of new flexible work forms on the quality of life ?
−   How to design a concept of "socially sustainable flexibility", which would improve both the performance of flexible organisations and the level of well-being ?

## *ICT and the development of flexible work practices*

In a European research project on "Flexible work practices and communication technology" (FLEXCOT) (1), we propose a characterisation pattern of flexible and/or atypical work forms (Table 1), including both emerging and well-known forms (Vendramin P. et al., 2000). Not all of them are linked to the use of ICT. Moreover, flexibility is not determined by technology, but rather by responses to well known external stimuli: increasing competition, globalisation, just-in-time production, growing diversification of consumer demands, changes in the composition of the labour force, etc. Nevertheless, two important features must be mentioned:

−   The diversification of flexible work forms, at the enterprise or sectoral level, is very often linked with the diffusion of new ICT applications and services. There is an interaction between technological innovation and organisational changes. ICT supports and fosters the implementation of flexible work forms and increases their efficiency.

−   ICT is first of all a technology of management of time and space. Therefore, the basic concepts of working time and work location are heavily called into question by ICT. As a consequence, the increasing use of ICT is blurring the boundaries between working time and other social times, between professional and personal spheres.

**Table 1: Flexible work forms**

| Working time | Work location |
|---|---|
| Variable part-time working<br>Flexi-time working<br>Shift work<br>Twilight-shift, night-time or week-end working<br>Overtime working (including unpaid overtime)<br>On-call working, on-line stand-by | Remote office working, external call centres<br>Mobile working<br>Home working, telecommuting<br>Working in telecentres or telecottages<br>Hotelling<br>Remote computer supported teamwork |
| **Work contracts** | **Subordination links** |
| Fixed-term or temporary contracts<br>Job sharing<br>Annualised hours<br>Zero-hours (without fixed work volume)<br>Piece work<br>Performance related pay | Working for an agency<br>Self-employed sub-contractor<br>Employed by third party supplier<br>Work contract transferred to third party supplier<br>Working for several employers<br>Franchising |
| **Functional flexibility** ||
| Horizontal or vertical polyvalence, changes in specialisation areas, multi-tasking<br>Multiple skills, functional mobility, adaptability<br>Life long learning, learning organisations ||

*Source: Vendramin P. et al. 2000: 59.*

The next table (table 2) underlines more targeted roles of technology in supporting and developing flexible work forms, under the same headings as table1.

**Table 2 : Flexible work forms – the roles of ICT**

| Working time | Work location |
|---|---|
| Extending services accessibility, lengthening of the working day.<br>Tuned management of task flows and quantitative manpower needs.<br>Just-in-time production in services | Extension and diversification of distance working and itinerant working.<br>Remote organisation and planning of project work and management by objectives.<br>Ubiquitous work. |
| **Work contracts** | **Subordination links** |
| "Just-in-case" manpower management.<br>Modelling and planning of atypical work contract management.<br>Electronic performance monitoring coupled to performance-related pay. | Support to subcontracting and externalisation.<br>Coordination of remote independent subcontractors.<br>Increasing job detachment and third party supply in ICT industries and services. |
| **Functional flexibility** ||
| Support to integration of tasks and polyvalence.<br>Increasing role of communication skills.<br>Incentive for continuous professional adaptability. ||

*Source: summarised from Vendramin P., Valenduc G., 2002:77-99.*

The FLEXCOT results show that ICT interacts in complex ways with other drivers to impact upon work and work organisation. The impact of ICT is mediated through a series of "institutional filters". The most important filter is management strategies, which are almost universally concerned with enhancing operational efficiency and cutting costs. ICT does not have a particular organisational logic. Indeed, management in individual firms often introduces what would appear to be contradictory logics around the same technologies.

However, ICT allows management to extend his organisational repertoires, permitting multiple formats, each designed to maximise profit.

Today's ICT offers different and greater opportunities in this respect than did IT developments in the 1980s. It is the "communication" element of ICT, which through allowing access to and manipulation of the same data and information by multiple workers and organisations, across space and time, which enhances organisational trends: blurring boundaries of working time and work location, growing importance of relationships with clients and partners, increasing role of communication skills in workers' profiles, new production rhythms in industry and services, networking and outsourcing.

### *Impacts of flexible work forms on quality of life*

Studies of the impacts of flexible working on quality of life cover a wide spectrum of analysis, most often situated elsewhere between the optimistic and the pessimistic extremities of this spectrum:

−   Optimistic analysis stress positive elements on the new job arrangements: autonomy, higher skills and more possibilities to reconcile work commitments with social ones. Former employees are becoming "portfolio workers": they sell their services to different employers; they develop their skills, their independence and entrepreneurial capacities.

−   Pessimistic analysis reverses the various characters identified by the optimistic ones: autonomy becomes dependence, and working time flexibility would extend work activities to "social hours", affecting the real possibility of developing social relations. Dependence may be economic (self-employment status of workers actually integrated in the sub-contracting firm), job-related (through the definition of strict and standardised objectives that may reduce to zero the potential autonomy of workers), and technically-embodied, in that ICT may permit constant and intrusive supervision, extended to workers' home. Tight objectives, reward by results and self-exploitation associated with self-employment would then restrict instead of expanding free time and social opportunities.

Both optimistic and pessimistic scenarios rely on observations and empirical findings. The problem is that they are not equally distributed. The optimistic view only concerns a minority of workers, among the most qualified or those who possess specialised and marketable skills. The pessimistic view concerns a wider range of socio-professional categories involved in "atypical" work forms and work status.

Most of the workers cannot choose themselves in which scenario they will be engaged. It depends on their position on the labour market. The FLEXCOT case studies and conclusions confirm an increasing segmentation of the labour market, according to a "core/periphery" model:

−   The core group is made of stable jobs, characterised by functional flexibility or negotiated working time flexibility, career perspectives, high and evolving skills, training opportunities, welfare wages and low turnover (voluntary mobility).

−   The various peripheral groups include temporary workers and other involuntary "atypical" contracts, characterised by more insecurity and precariousness, lower wage levels, poor career prospects, limited access to training and high turnover. Women and young workers are disproportionably over-represented in these peripheral groups.

Table 3 indicates what can be the impacts on quality of work and quality of life of the most "socially unsustainable" trends in flexible working. It may look like a black picture of the future of work and well-being. It indeed underlines the most problematic issues of flexible work patterns. This characterisation of "unsustainable flexibility" is however necessary in order to draw alternative pathways.

**Table 3: some features of "socially unsustainable" flexibility**

| Trends | Impacts on quality of work | Impacts on quality of life |
|---|---|---|
| Zero the hero | Zero stock: applied to manpower management and work contracts. Zero delay: pressure of shorter and shorter deadlines, with final repercussion on the worker. Zero default: responsibility of errors transferred to the end users. | Urgency becomes a new way of life: accelerated rhythms, fear of porosity, and culture of instantaneity. Real time in technology becomes artificial time in everyday life. |
| King customer | New production rhythms characterised by extended accessibility of services, unforeseeable working hours, splitting of working time. More and more employees directly confronted to customers' pressure. | Production time and pace are determined by consumption time and pace. |
| Taylor's spirit | Quality standards (ISO): increasing codification of procedures and tasks. Technology as a tool of standardisation and codification of knowledge and communication. The stress of the workflow replaces hierarchical authority. Obsession of measurement and benchmarking: new alliance of the computer and the chronometer. | Socio-psychological aspects of work overlap private and social spheres: permanent stress, harassment, activism, and loss of motivation. |
| Dependent autonomy | Tight objectives, strong constraints and limited means lead to self-exploitation. Team work can result in increasing mutual pressure. | Work pressure overlaps and shapes other personal and social behaviours. |
| Adaptability to instability | Needs for continued adaptation are turned into threats: precariousness and forced mobility. Personal investment in employability can become disproportioned in relation to the obtained guaranties. | A culture of the short-term becomes pervasive in life styles and social linking. Forced mobility and instability enhances a general feeling of insecurity. |

*Source: summarised from Vendramin P., 2001.*

### *Towards a concept of "socially sustainable" flexibility*

A general purpose of the FLEXCOT project was to determine to what extent the new generation of ICT could be used in order to support new flexible work practices, achieving both objectives of economic efficiency and social welfare in a sustainable way. Such flexible work practices should reduce, and further remove, most of the unsustainable features, as mentioned in table 3, and social inequalities resulting from core/periphery segmentation. Therefore, the concept of "socially sustainable flexibility" refers to both quality of work and quality of life.

To the question "Does socially sustainable flexibility appear as possible ?", the answer is: yes. ICT enhances the potential for innovation and extend the diversity of options in work organisation, human resource management and social relations. Nevertheless, the benefits of socially positive flexibility are still limited to qualified professionals or workers belonging to the "core" of the labour market. In order to foster a broader positive impact on quality of work and well-being, an incentive institutional framework must be created. Changes or even reversals in human resource management are necessary.

Pathways towards socially sustainable flexibility are on a sharp edge between conservative inflexibility and uncontrolled flexibility. Several conditions must be encountered in order to achieve this goal:

− Negotiated management of working time arrangements must go further than working time reduction and integrate working time and other social times in a dynamic approach (Boulin, 2001). Recent works of the Dublin Foundation, for instance, are going this way (EFILWC, 1999).

− In order to deal with the increasing discontinuity of professional trajectories and its negative impacts on welfare and social protection, social rights should be guarantied independently of work status, as suggested in a well-known European report (Supiot & al., 1999).

− A renewal of collective bargaining should be fostered by an enlargement of the social basis of trade unions, including the target audience of information and communication professionals and allowing a broader women's representation at all levels. Modernisation of trade unions will also lead to a better integration of quality of work and quality of life (Leisink P., 1997).

− Human resource management and lifelong learning can reinforce individual autonomy and responsibility, but without transferring to the worker the entrepreneurial risk, of which they reap the disadvantages, but not the benefits.

− Creative mastering of the wide potentialities if ICT tools can reverse the balance between rationalisation and innovation in work organisation.

Current times are favourable to such prospects. Imposed flexibility is nowadays reaching the limits of its social acceptability. Although it has been considered at a time as a necessary sacrifice, the persistence of sacrificial working and living conditions is not anymore compatible with the promises of growth and welfare in the information society.

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