

## Use of information and communication technology and corporate social responsibility: new social practices in large companies

This document summarises the conclusions of a workshop on the social issues regarding the use of ICT in large companies, set up on the initiative of the CIGREF and the ORSE.

Over the past three decades, the use of information and communication technology (ICT) in companies has changed the organisation of work, revealing and speeding up the diffusion of new practices and social relations.

It has allowed considerable productivity gains to be obtained in the management of data, as well as the development of a process approach and a just-in-time culture in administrative and service functions.

The consequences of these transformations on work and people are extensive. We have observed the inflation of information volumes, the fragmentation of groups and tasks and the intensification of the pace of exchanges and work.

Nevertheless, companies continue to consider ICT from a technical standpoint rather than as an organisational and human issue, often considered to be secondary.

The question of the value of use is still open and would require the implementation of new indicators.

The major challenge for companies concerns the ability of their managers to come to grips with their tools and support their teams for the change of which ICT is one of the vectors.

This change is driven by new tools (wiki, social networks, instant messaging, blogs, etc.), new types of social and professional behaviours, new forms of work (more collaborative and horizontal), a new generation of employees that is developing high expectations in terms of corporate, social and environmental responsibility.

ICT is therefore revealing a risk of divergence between work cultures. While the technology is already available, companies still have to learn to use it. Many forms of use still have to be devised that will extensively transform organisations.

Based on an analysis of current corporate practices, the workshop proposes insight into understanding the social adoption of ICT.

Finally, it recommends a serie of best practices, the aim of which is to make use of these tools efficient and acceptable to companies, now and in the future.

### → Work method

The workgroup on the social issues regarding the use of ICT in major companies consisted of around twenty participants (information system managers, human resources managers and actors from trade unions, etc.) from various companies and organisms belonging to the CIGREF and the ORSE..

At specific theme work sessions arranged over a one-year period, meetings with people involved or major observers (economic players, researchers, consultants, etc.) fuelled common study of the strategic analyses and experience of companies.

The work was completed by documentary research. Each meeting started with a theoretical presentation and a case study, with the ensuing discussion aimed at fostering the emergence of concrete issues as well as best practices.

François Silva, Professor at the ESCEM Tours/Poitiers, Associate Professor at the CNAM and Stéphane Hugon, GRETECH-Sorbonne, the workshop coordinators, were responsible for the production of this summary report.

## **I. ICT at the core of change**

The transformations of work culture not only result from factors specific to company space. They also reflect the changes in society as a whole. As a result, for around twenty years, social change has had a deep, lasting impact on the forms of work organisation in companies, affecting leadership and forms of social cohesion, new forms of cooperation, establishment of hierarchies and the circulation of power.

Information and communication technology (ICT) by its very nature is both revealing and accelerating this change, which is being crystallised in a generation of young employees with new ways of doing things, new methods of construction and supervision of groups and newly devised ways of working.

Managerial approaches are now having to adapt and cast off the illusion of "change due to ICT": on the contrary, it is how these tools are used that needs to change to take in the current social and relational transformation.

Society is being transformed, if companies are to remain in tune with their teams, they need to understand and support them.

### **1.1. New social and managerial logic**

The penetration into companies of ICT since the Eighties has speeded up the decline of centralised work organisation inherited from the world of industry.

The generations entering the employment market from the Nineties onwards have relativised the "work ethic" as a social identity component and called into question "vertical" models of control and hierarchical subordination - in favour of social relations based on groups, and more horizontal contribution and exchange logics that have a direct impact on the work space.

These social trends come within an environment marked by a boom in the services economy and new constraints affecting companies (shorter temporality and visibility, more unstable international context, more varied economic cycles, etc).

Computerisation accompanies and accentuates all these changes, leading to transformation of the work and social relations in a company and even of the company itself.

Computerisation accompanies and accentuates all these changes, leading to transformation of the work and social relations in a company and even of the company itself.

ICT, network tools in particular, support the emergence of community logics associated with the deployment in companies of project-driven management.

The introduction of these forms of technology at all work process levels involves a high proportion of self-training, self-organisation and implicit logics and, at the same time, encourages mutual adjustment, the exchange of experience and the emergence of new skills.

At the same time, the introduction of ICT in organisations fosters the break-up of the pace of work and work spaces that are no longer shared by all players and the deconstruction of chains of responsibility bypassed by messaging systems.

A new form of work organisation is emerging, focussed in particular on collaborative activities that constitute a significant cultural break, notably when they involve people in different locations, hierarchy and temporality situations.

### **1.2. The technical illusion**

"There is also an illusion of technical "push button" solutions: the change by ICT. ICT projects too often remain in their technical dimensions, with the risk of excessive delegation of projects to IT project managers.

In project management, all the knowledge and know-how, in terms of assets held by the organisation for its activity, is often seen to be undervalued, to the benefit of software and technical expertise. The success of a project may be endangered since usage may be constructed in an inappropriate manner." (Workshop presentation).

### **1.3. Companies under threat of fragmentation**

At the same time as it transforms the nature and content of work, network organisation dilutes and delegates responsibilities.

An employee independently accesses what was, in the past, the prerogative of independent jobs of work. Counteracting this new-found independence, permanent control in time and space is tending to replace hierarchical functions. The worldwide financial crisis has underscored the urgent need to assert new ethical requirements and rules of governance, integrating this radical transformation of the links between employee and employer. At the same time as it transforms the nature and content of work, network organisation dilutes and delegates responsibilities.

Changes are currently being further speeded up with the arrival of new generations trained in a Web 2.0 type of culture. These young employees with new technological requirements - since innovative forms of use of ICT now come more from the amateur and/or family space than the corporate world - are quite naturally directing the adoption of tools and managerial methods towards increasingly varied, horizontal logics.

By fostering deterritorialisation (working at home, from your car or from public transport) and extra-temporality (working in the evening or during the weekends), ICT is speeding up the fragmentation of companies: they are splitting up into groups and networks that no longer share the same time, location or work culture.

By the use of ICT, a division is being created in the working community between executives, equipped with itinerant tools and non-executive staff, subjected to different paces and constraints.

Company coherence is being called into question by the deployment of increasingly informal, mobile networks. Technical culture also comes into play: depending on age, diplomas, experience and use, the contrasting forms of the adoption of tools can lead to discrimination or marginalisation - remote working sometimes creates "digital sidelining" situations - or even exclusion in the longer term.

As a result, technology reveals and exacerbates the risk of loss of cohesion of work organisation systems.

#### 1.4. The 3 ages of technology

- Primary era: in the 1980s, the computerisation of existing processes was based on pyramid logic-based management. The PC (personal computer) appeared as the nodal point. Computer tools were used for data input and operational purposes. This was computerisation for "underlings".
- Secondary era: in the 1990s, a transition occurred from individual office software to the construction of a network-organised system (network architecture, client/server, databanks, communication tools, Internet access). IT moved into all areas of the company and took charge of decision-aid. Adoption was facilitated by the development of digital tools in the family and leisure environment and due to changes in society. However, while the potentialities of Web 2.0 emerged in companies, management remained vertical.
- Tertiary era: in the 2000s, ICT has become widespread, companies have given their managers mobility tools. This has fostered the matrix-oriented operation of organisations, combined with more horizontal management and a break in working routines (dematerialisation of work-stations, rapid development of collaborative functions).

While the IT access divide has been reduced, new divisions have appeared in networking and Web 2.0.

The adoption of new tools depends on each generation as well as relational and technical practices in the field of leisure. The use of technology is becoming a marker of a break in corporate cohesion and coherence.

## II. New forms of use - for what added value?

Since the 18th century, the entire history of companies can be perceived as a constant search for productivity gains by the integration of new tools fostering the optimisation of organisation. The tertiary sector entered this process later than industry, with the arrival of the ergonomic PC and the implementation of networks for computer tools that have completely modified information management in office work.

As a result, the development of ICT, combined with the reorganisation of work has enabled:

- a reduction in lead times, or even real time,
- a reduction in costs,
- the automation of administrative tasks,
- the design and development of new services,
- development of the ability of users to exploit existing information..

### 2.1. The ICT paradox: inflation that calls efficiency into question

Over the past twenty years, ICT has become accessible to all employees, offering them easy use and direct access to information systems.

It has penetrated and modified most areas of companies, which have evolved towards a form of organisation based on the ability to exchange information that has become the basis for value and innovation.

This widespread use of communication tools, added to their increasing sophistication, is leading to the inflation of volumes of data.

Initially, this was the very objective of network architecture, aimed at facilitating the production and circulation of information. However, a critical mass was reached and companies have seen a transition from a search for opulence to the management of excess.

The explosion of information volumes, in messaging tools in particular, has become an obstacle to the proper circulation and intelligibility of data.

Witness accounts underscore the saturation experienced at all levels of companies. The widespread increase of flows soaks up invaluable time absorbed by the processing of data.

Moreover, messaging tools ingest functions or exchanges that ought to transit by other channels.

As a result, a paradoxical situation is developing where inter-personal communication produces isolation and excess information reduces the pertinence of exchanges.

Because it is time-consuming and generates inconsistent paces of work, considered intrusive and not very beneficial to concentration or monitoring other tasks, the overdevelopment of information has an impact on individual performance in itself. All these changes lead us to question the relationship between the growing cost of technology and the actual productivity effect.

## **2.2. The impact of ICT on employee healthcare**

The widespread use of ICT in companies also affects occupational health – a physical effect on the organism (musculoskeletal, visual, etc.) linked to workstation ergonomics and, above all, the psychological impact (tension, stress, burn out, etc.) due to a pace of work where employees are under permanent strain.

In light of the continuous, abundant flow of data, the issue becomes one of the right to "switch off". "Technological stress" principally affects executives, since they are subject to a permanent requirement of availability by reason of their mobility tools (PDAs, mobile phones). "Technological stress" also affects employees, to a certain extent, notably those working in call centres (hot-lines, sales, marketing).

*According to a British study conducted in 2007, more than one employee in three suffers stress due to the avalanche of e-mails received in his or her place of work and the need to reply to them promptly.*

## **2.3. The factor of the integration of the handicapped?**

ICT underscores another paradox on the question of discrimination. This technology enables workstation and application ergonomics to be developed (visual interfaces, Sat Nav on mobiles, remote work, etc.) fostering the integration of the handicapped into the workplace. However, this potential is still underexploited.

First of all, ICT does not settle the issue of the social place of the handicapped in our society, resulting in their under-representation in companies.

Secondly, the working tools, software to start with, are still mainly unsuitable, due to failure to integrate the recommendations that would make them usable by the handicapped, whether company employees or customers.

Companies are obliged to hire handicapped persons but equipment suppliers are not obliged to adapt their IT tools .

## **2.4. Resistance to change**

Collaborative work cannot easily be based on a traditional hierarchy form of organisation since the basis of activity is undertaken from informal networks.

However, the management implemented in companies is still immersed in this pyramid culture, even if transformations are beginning to emerge. Therefore the use of ICT is still primarily individual.

While the rapid development of social networks on the Internet reflects the new relational structures outside the workplace, among young people in particular, inside their companies employees are barely developing these practices that go beyond individual logic in the form of "collective intelligence".

## **2.5. Young employees – a technology lag**

As emphasised by a workshop participant "for anyone born after 1985, starting work is a technological shock."

These new recruits are often obliged to use out-moded tools and are prohibited from (or with strong limits imposed) using social networking tools and instant messaging. It is true that the use of these collaborative tools in companies, if not supervised and limited, represents a major risk, in terms of security in particular.

The issue at stake consists of controlling this risk, at the same time enhancing the value of human potential and skills represented by the young generations.

## **2.6. The work/outside work boundary in question**

For executives and managers, the intrusion of the use of tools in the personal space, outside of working hours has been observed.

Taking work home becomes a necessity to meet deadlines, complete a file or a presentation, or to work in isolation and be able to find the concentration no longer possible due to the fragmentation of working sessions and tasks in the professional environment.

This leads to a process in which results are not longer connected with physical presence in the company, with ambiguous aspects. Itinerant tools provide a certain level of freedom, allow people to escape the stranglehold of timetables, acquire independence and operate in terms of objectives to be achieved.

At the same time, the informal organisations generated by ICT foster the development of "blind zones", that is to say working time outside the company that the latter does not recognise, intentionally or otherwise.

## **2.7. Largely unexploited relational potential**

The risk linked to the inflation of volumes of data is not only one of the disintegration of quality of work, quality of the human and relational environment but also ultimately one of economic performance: circulation of the flows generated by ICT in information systems creates an effect of saturation of the value of using this technology and, above all, also of the relational value.

The increases in capacity of equipment and applications (larger bandwidth, disk space, RAM and processor speed) have, it is true to say, enabled significant productivity gains to be achieved.

However, despite interfacing, ergonomics and affordance efforts, tools focussed on the quality of interpersonal relations are still rare in the corporate world. When they are available, they are under-used or saturated by poor use. It is clearly apparent that there is still huge potential for progress and optimisation of use.

## **2.8. The issue of sustainable IT**

In a sustainable development perspective, in light of the challenges presented by climate change and rarefaction of resources (energy and raw materials), companies nowadays are obliged to rethink their action and processes or even their business models. ICT will have to play an essential role in this.

One of the major issues at stake involves our ability to exploit the potential of sustainable IT to help all sectors of activity revise processes and business activities and, generally speaking, support economic and ecological change. The implementation of tools to reduce travel (remote conference facilities, for example), the development of remote working, virtualisation and consolidation of servers and workstations represent an initial stage.

It involves the implementation of more global, longer term study of the social and human aspects of change by encouraging organisations to examine the beneficial use of ICT for responsible corporations.

## **III. Workshop recommendations**

There are no generic methods, applicable everywhere, for the implementation of new forms of work organisation in respect of ICT. Nonetheless, CIGREF and ORSE have identified some best practices that companies can implement to support and facilitate the adoption of ICT by their employees

### **3.1. Establishment of annual assessments of the use of ICT**

An annual assessment is essential for each business sector and support function to develop detailed,

up-to-date knowledge of use (potential, impact, gains generated, difficulties, limits), improve the way they are supervised and define training programmes tailored to needs.

This approach conducted by the HR and IS departments, together with Business departments, also has a pedagogical role: it supports the change and develops the awareness of the various players to controlling the use of ICT.

Its aim is to refocus technical implementation on the real situation of corporate relational and human potential and facilitate the professional and social adoption of technology by setting up the necessary corrective action.

### **3.2. Give companies an ICT usage charter**

A charter fixing the rules and principal uses of ICT (rights and duties of users) helps to develop the responsibility of all company stakeholders as regards the use they make of the tools provided. It is also a mean of improving the identification of action liable to present a risk for the company.

Personal representation institutions (unions, health & safety committees, works councils) must be involved in the preparation of a document of this kind.

### **3.3. Reinforcing the role of the Data Privacy Protection Correspondent**

Employee control systems based on the use of ICT tools must be supervised, based on the recommendations of the CNIL (Data Privacy Protection Agency), the mission entrusted to the Data Privacy Protection Correspondent and discussion with staff representative organisations.

### **3.4. Better support for users**

Support and training for users in the daily practices is one of the conditions for effective, efficient use of the tools. This dynamic must also be reflected in training plans tailored to user profiles. It must also come within an approach to integrate young generations, familiar with new technologies, in order to fully enhance the potential of this population.

### **3.5. Asking suppliers on the availability of tools**

Integration of the handicapped into companies is hampered by the lack of offerings tailored to the needs of this population.

Over and above the issue of availability, this subject concerns the question of discrimination with the attendant regulatory repercussions.

### 3.6. Develop a common culture for use

ICT consists of powerful tools, the use of which can just as easily destabilise a company as foster its development if used advisedly. In all cases, it questions the values, coherence and ethics that players are supposed to share.

It is up to management (local supervisors and head office) to ensure that the use of ICT enters into a common culture. They must uphold practices and set an example by the use they themselves make of these tools by encouraging practices that reveal the potential of teams and encourage their expression.

### 3.7. Enable managers to come to grips with ICT

Behind the technical issue comes the managerial issue, to be precised that of the ability of managers to understand the uses of ICT and its potential for their teams. By developing their own knowledge and control over these tools, they will be in a better position to assess the extent of the practices possible - sources of new added value.

Containing and controlling stress and, in a general manner, the tension generated by excessively untimely use of tools means that rules have to be defined, including the fact that managers must set an example regarding the use they themselves make of the tools for their employees..

### 3.8. Bring Human Resources (HR) and Information System (IS) functions closer together

The integration of ICT into Business sectors may call for modifications to employment contracts, work organisation and support for users involving the entire company.

To this effect, the HR and IS functions should work together to promote dialogue and meetings with Business sectors, as well as with personnel representation bodies, upstream of technology arbitration.

The issue at stake for cooperation also means achieving a balance between the cost of use and adoption of ICT (including any hidden costs) with the financial gains expected by the company.

A study should be made of training plans in order to integrate:

- control over ICT at all stages of professional life,
- study of recourse to ICT for training employees: for example, e-learning training means there is no collective exchange framework and shifts the responsibility for the assimilation of knowledge onto the user; this type of training is therefore not ideal for complex training courses.

### 3.9. Maintain the diversity of information channels

Depending on the company sector, its size and whether or not organisation is centralised, not all employees can access to electronic information. This is notably true for workers and low-grade employees. Companies must therefore be careful to maintain traditional forms of communication (paper circulars, group meetings, etc.), at the same time devising new forms of communication based on ICT (provision of a connection workstation per team, for example).

It is essential that information continues to circulate via several parallel channels, avoiding systematic recourse to English as the communication vehicle (Toubon Act dated 4 August 1994).

## ➔ In conclusion...

Study on the use of ICT in companies shows that a strong, horizontal relationship is established between the organisation of work, the circulation of information in companies and the relational and functional structures between players. The added value contributed by the tools is situated at the core of the relation.

Assessment of this value, fundamentally linked to all the dimensions of companies, must not be limited solely to measurement of the financial return: it encompasses the assessment of the social impact of use or misuse of technology.

The issue of ICT integration is connected to that of corporate social responsibility and therefore its governance. Interlinking the use of ICT and CSR poses the question of corporate governance: the latter must associate all its stakeholders with decision processes:

- employees and their representatives,
- IT sector suppliers,
- management,
- customers, the requirements of whom may have an impact on companies and, as a result, on the working conditions of employees.

ORSE, is a think-tank, bringing together specialists in diverse fields, all committed to SRI and corporate responsibility development..

Le CIGREF - Association de Grandes Entreprises -promote uses of information system as a factor of value creation and source of innovation for the company.