

Courseware for Telework Training

Dr. Adérito Marcos, Luis Grave, Jürgen Bund, Rosa Ferreira, António Freitas

German Abstract

Der Begriff Telearbeit wurde bereits 1973 in den USA von Jack Nilles als eigenes Forschungsgebiet eingeführt. In den letzten Jahren jedoch hat dieser Bereich einen regelrechten Boom erfahren, insbesondere aufgrund der stetig wachsenden Vernetzung in den modernen Informationsgesellschaften, der Entwicklung neuer und leistungsfähiger Kommunikationstechnologien im allgemeinen und natürlich nicht zuletzt aufgrund der enormen Expansion des Internet.

Die Einführung von Telearbeitskonzepten in Firmen ist allerdings mit einer Reihe von Schwierigkeiten verbunden, wie z.B. dem Aufbau einer adäquaten und effizienten Kommunikationsinfrastruktur, der Ausbildung von Mitarbeitern sowie der Definition und Implementierung neuer arbeitsorganisatorischer Prozesse.

Am CCG wird seit kurzem ein Projekt durchgeführt, welches den Aufbau eines CD-gestützten, multimedialen Trainingskurses zum Ziel hat, der durch seine besondere Struktur sowie spezifische Interaktionsformen eine effiziente und umfassende Schulung von IT-Managern bezüglich der Einführung von Telearbeit in KMUs leisten soll.

Introduction to Telework

Telework means »applying information and communications technologies (ICTs) to enable work to be done at a distance from the place where the work results are needed or where the work would conventionally have been done«^[1]. This implies a changing of the accepted geography of work.

The concept of telework, or telecommuting as used in the USA, has been introduced by Jack Nilles, a US researcher, who in 1973 worked on the first documented pilot project in this area for an insurance company^[5]. His idea of telework was to move the workplace closer to the worker and therefore to avoid or at least reduce the worker's displacement.

A recent advance in telecommunication facilities and an increasing number of available computers has fostered an evolution in the telework concept. Actually, there are three different modes of performing telework:

- working at home,
- working at a mobile station
- working at telecenters.

Telecenters are workplaces equipped with all necessary hardware, software, communication and office facilities to be used by teleworkers of several companies. In the near future, telecenters might create a considerable number of new jobs and companies as well as individuals may benefit tremendously from them.

The chances given by a carefully implemented telework scenario are:

- The worker has more flexibility and less commuting stress, the quality of life will be increased due to the better balance between job and private life.

- Reduced commuting means less pollution and traffic jams and gives us the resulting environmental benefits.
- Less workplaces at the company means a reduction of costs and a better usage of office space.
- Telework could help the development of fringe regions and stop large numbers of workers migrating to the metropolitan centers hoping to find work.

One of the big challenges of introducing telework is posed by the overall objection of companies and workers to accept labor arrangements for teleworking. The most important obstacles can normally be observed in the companies. The fear to manage new paradigms arises from the fact that the worker is far away and it is therefore difficult to control his or her work and productivity. The skepticism felt by the worker is mainly based on the supposed loss of social contacts that he might face if he does not work at a traditional workplace.

However, we think the major difficulty in establishing telework scenarios and policies is the level of people's (potential teleworker's) knowledge and aptitude to use ICTs. This means that an intensive teaching and training of concepts, technology, solutions, advantages, disadvantages, integration strategies, etc. along with live demonstrations, must take place prior to the development of any actual teleworking scenarios.

Training on Telework Technologies

Accordingly, the establishment of specific initial teaching and training on the subject is a fundamen-



Figure 1: Typical courseware page

tal aspect which has to be considered if teleworking policies are to be implemented. This is even more important in regions where contact with information technology is low or non-existent.

This process can be substantially improved by using specific multimedia courseware that helps to increase the acceptance and efficiency both of the company and the worker.

A computer-based course using rich multimedia elements permits to explore the expressiveness of information up to its limits, allowing a higher degree of interactivity with the course contents.

CCG is currently developing an interactive course on telework issues, focusing especially on technology, solutions, strategies and recommendations for its integration in daily life. This follows a growing demand coming from

companies that start to see telework and the ICTs as valuable tools for cutting costs and improving their organization and work processes. Thus, the target audience of this course are IT professionals and SMEs.

To achieve these goals the course employs multimedia technologies for a better explanation of the subjects, combining text elements, pictures, animations, video and sound to intensify the acquired knowledge. Moreover, it allows a higher degree of interactivity which leads to an improved understanding of the different concepts presented in the course. The trainee will be able to assess his learning progress all by himself at the end of each unit.

The course also includes online tests and demonstrations, in which learners may start applications and tools (e.g. e-mail, video-

conferencing, etc.), allowing them to access small practical ICT examples. Also, an essential component of the course materials emphasizes social and, even, potential familiar problems associated with telework. Advice on how to solve or avoid these problems are described in detail.

The main structure of the course is a set of modules covering the following subjects:

- Historical introduction.
- Telework definition.
- Essential Enabling Technologies.
- Supporting tools.
- Main Benefits and Drawbacks. Advice
- Limitations.
- Security aspects.
- Strategy for Integration

A public version of the course will be available by winter 1999.

References

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Figure 2: Page with simulation elements

Point of contact

Dr. Adérito Fernandes Marcos
CCG, Coimbra, Portugal
Email: marcos@ccg.uc.pt