Este trabalho foi desenvolvido no âmbito de um projeto que tem como objetivo o estudo de um modelo de colaboração virtual baseado em computador, capaz de suportar atividades colaborativas para a educação e formação à distância.

Abstract
The collaboration and the teamwork have always been a way to congregate efforts between individuals, with the goal to achieve tasks that are difficult to achieve alone. Sometimes, the collaboration between people is useful too for the enrichment process of the personal experience.

The computer is a tool that appeared to help the man in its daily tasks and became an instrument with great value. However, one of its great virtues is its capacity to support and passivate the collaboration among people.

The work presented in this dissertation belongs to the CSWC (Computer Supported Collaborative Work) area and presents a system that allows the production, presentation, study and annotation of hypermedia documents in a collaborative manner. For this purpose, were developed two software components: the "Hypermedia Document Composer" and the "Hypermedia Document Viewer". The first one is an authoring tool for the hypermedia documents production. The first version of this component allows the stand-alone authoring only. A second version that allows the collaborative authoring is now in development. The second component allows the documents viewing either in collaborative mode or in stand-alone mode. In collaborative mode is it possible to present documents and to study them and to be copied or taken by one person in one workstation are reflected to all workstations in collaboration.

This work was developed in a project which main goal is the creation of a virtual collaborative environment supported by computers, capable of supporting collaborative activities for distance education and training.

Título: Telecomunicações

Abstract
The success of new telecommunications technologies, mainly in public networks, is often hindered by the lack of an application which can stimulate its demand by the customers.

The late 90s are witnessing the launch of ATM as a new and promising service by the public network operators. Although the present status of the ATM public service is still far from enabling the full exploitation of the technology: multiple capabilities, its basic functionalities can be already employ to provide an alternative to traditional network solutions. What is not yet completely clear, however, is which application will be able to ignite ATM expansion in public networks.

Virtual Private Networks (VPN) are a candidate application to play that role for the ATM public service. Lately, VPNs, whether based on ATM or not, have gained an increasingly important role in the telecommunications scenario. In an early stage, the prospective market of ATM public service will be probably restricted to large companies, for which VPNs are an interesting alternative to conventional network solutions, normally based on leased lines.

In addition to its innate capabilities to support a wide range of applications and services, ATM provides a number of tools which make it especially suited for the establishment of VPNs. This document studies ATM main strengths for this type of application. In addition, as the evolution of ATMA public networks will likely be a gradual process, an evaluation of the possible VPN architectures in each stage is performed.

This dissertation contains four main parts. The first part describes several ways of establishing VPNs using technologies other than ATM and highlights their main limitations.