



## Stichting NIOC en de NIOC kennisbank

Stichting NIOC ([www.nioc.nl](http://www.nioc.nl)) stelt zich conform zijn statuten tot doel: het realiseren van congressen over informatica onderwijs en voorts al hetgeen met een en ander rechtstreeks of zijdelings verband houdt of daartoe bevorderlijk kan zijn, alles in de ruimste zin des woords.

De stichting NIOC neemt de archivering van de resultaten van de congressen voor zijn rekening. De website [www.nioc.nl](http://www.nioc.nl) ontsluit onder "Eerdere congressen" de gearchiveerde websites van eerdere congressen. De vele afzonderlijke congresbijdragen zijn opgenomen in een kennisbank die via dezelfde website onder "NIOC kennisbank" ontsloten wordt.

Op dit moment bevat de NIOC kennisbank alle bijdragen, incl. die van het laatste congres (NIOC2025, gehouden op donderdag 27 maart 2025 jl. en georganiseerd door Hogeschool Windesheim). Bij elkaar zo'n 1500 bijdragen!

We roepen je op, na het lezen van het document dat door jou is gedownload, de auteur(s) feedback te geven. Dit kan door je te registreren als gebruiker van de NIOC kennisbank. Na registratie krijg je bericht hoe in te loggen op de NIOC kennisbank.

Het eerstvolgende NIOC vindt plaats op 18 maart 2027 in Arnhem en wordt georganiseerd door HAN University of Applied Sciences.

Reacties over de NIOC kennisbank en de inhoud daarvan kun je richten aan de beheerder:

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Vermeld bij reacties jouw naam en telefoonnummer voor nader contact.



## The impact of new telecommunication technologies on vocational training

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### Introduction

Objective: to outline the potential for effective and efficient interactive distance education systems made possible by recent advances in telecommunications technologies.

The lecture will review the systems for interactive conversational group training that have become available over the last few years. These include audio-(telephone-)based teleconference systems, audiographic systems (in which the graphic or visual component may be supplied by a variety of means including fax, electronic blackboards, slow scan video, interlinked computers, etcetera), videoconferencing systems (one and two way video) and networked computer conferencing systems. We will also review the developments in networks and delivery systems, including the current state of the art in satellite communication and ISDN.

### Central theme

An aspect not to be overlooked, however, is the continuing importance of print materials (whether delivered on paper or electronically) in most distance education systems.

We will focus on how these systems work, the relative advantages that each offers and how to employ each one in the context of education and training. Educational uses will be classified as 'instructional' (where a specific learning outcome is desired and a preplanned set of learning activities is set up) and 'conversational' (where the learners are exploring a topic or domain for their own particular learning purposes and are often collaborating with other learners during this activity). These two terms are seen as a continuum, on which we can classify any given educational or training application. Several typical practical applications will be reviewed, including the various modes of teleconferencing, the more directed 'teletraining systems' (for example AT&T), cooperative learning groups, group access and discussion of remote databases, etcetera. Some experimental models of structured group teletraining, developed by the present author, will also be discussed. It will be shown how these various modes and techniques can be classified as suggested above.

### Conclusion

Finally, it will be shown how the classification process enables the end user to systematically select or design an interactive distance education system that is appropriate to the particular training application in mind. We will close with some further guidelines on the implementation and management of interactive distance education systems and on the evaluation of the learning effects obtained.