Dr. Anton Reiter
Federal Ministry of Education, Science and Culture (BMBWK)

„The Incorporation of Informatics in Austrian Education: The Project „Computer-Education-Society" in the School Year 1984/85"

ISSEP, 30.3.2005

The Incorporation of Informatics in Austrian Education in the School Year 1984/85

Starting points

- Microelectronics as key technology of the 20th century
- Effects of information technology (IT) on economy, society and education
- Klaus Haefner predicted an educational crisis caused by the penetration of IT into our lives

The Incorporation of Informatics in Austrian Education in the School Year 1984/85

The educational crisis

- Many activities of the human brain would be taken over by IT
- Students of all ages would have to be prepared for their future role in society
- Bringing IT into the class
- Development of new curricula
- Building up an IT-related infrastructure

Klaus Haefner

The Incorporation of Informatics in Austrian Education in the School Year 1984/85

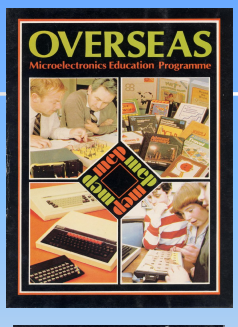
IT- approaches

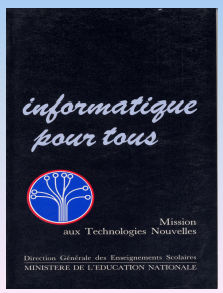
- Most of the developed countries started ambitious and costly programmes to introduce computers in schools in the beginning of the 1980ies
- IT-approaches were focussed on
  - Computer Science (EDP, Informatics) in vocational and upper secondary education
  - Computer literacy to all students of all levels of education

The Incorporation of Informatics in Austrian Education in the School Year 1984/85

European IT-programmes

- Microelectronics Education Programme (MEP, 1984)
- Informatique pour tous
- Dutch Nivo Project
- Programme of Action
- Minerva Plan





The Incorporation of Informatics in Austrian Education in the School Year 1984/85

Categories of education in IT in Austria

A **basic instruction** in IT for all pupils:	**Advanced instruction** in IT (informatics as a subject)	**Job specific instruction** in IT
to get acquainted with the fundamentals of hardware and software to use computers and information systems to deal with the implications and the impacts of data processing (socio-economic dimension)	to convey methods for problem solving to deal with programming and data structures to convey information about programming languages to use applications to be aware of the implications of IT	Industrial or technical areas (CAD, automation etc.) commercial and business fields (office communi-cation and organisation etc.)

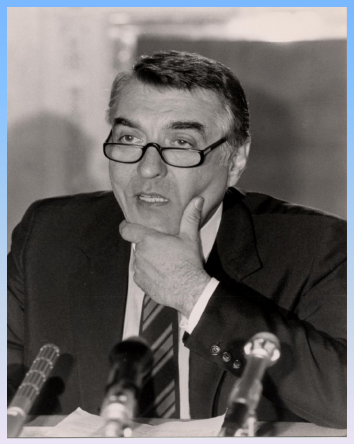
The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

Objectives

- Motto: „Prepare the youth and offer a chance of entry to the adults!"
- Goal: a basic education in IT is to be seen as integral part of general education
- The Initiative was launched by the Minister of Education, Arts and Sports (BMUKS) Dr. Helmut Zilk in cooperation with associations of labour and industry (Federal Board of Economy; Association of Industrialists; Labour Board and Austrian Federation of Trade Unions), the pedagogic institutes and IT-companies.

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

- Syllabus development
- Teacher Training
- Supply of Equipment
- Installation of Information-, Instruction- and Training Centers



Minister Dr. Helmut Zilk

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

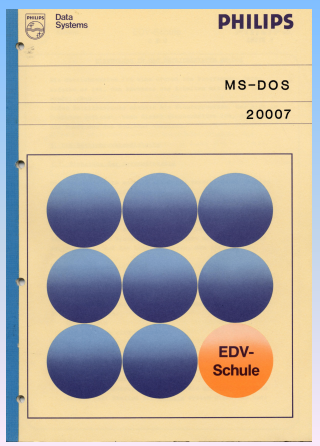
Syllabus for Informatics

- A compulsory subject informatics (2 lessons per week) at the 5th form of Secondary General (Academic) Schools (AHS) in the school year 1985/86 (as optional subject in the 6th to 8th forms) and instruction of informatics in of the seminars of Prevocational Schools (1986/87).
- priorities of the AHS-syllabus:
  - Technological concerns of hardware and software,
  - Strategies of problem solving,
  - Programming (GWBASIC),
  - Working with applications (user software),
  - Implications of IT for the society and the individual (socio-economic aspect)

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

Teacher Training

- Teacher training seminars (also for multiplicators) lasting 2 weeks at IBM and Philips Data Systems (PDS) from mid August 1984 to the end of June 1985 (500 teachers took part)
- 16,5 hours of at total of 80 hours instruction were dedicated to socio-political and socio-economic themes aside the lectures dealing with hardware, software, programming etc.

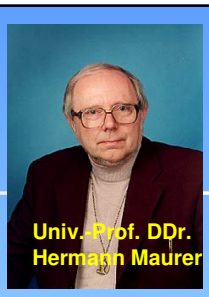


The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

Supply of Hard- and Software

- Hardware: 169 of altogether 238 AHS got a standard configuration in a special computer lab consisting of 6 IBM-compatible Microcomputers (MS-DOS 2.0), pin-printers and a videotex-connection (MUPID2-computer)
- Software: Integrated package Open Access for word processing, data base application and spread sheet calculation; GW-BASIC; games etc.

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85



Interactive Videotex (Btx)

- All 238 federal AHS got a MUPID 2 (Multifunctional Universal Programmable Intelligent Decoder) computer to use videotex
- Videotex (Bildschirmtext, Btx) was a text information and text communication system using the public telephone network - similar services were Minitel (France) and Prestel in the UK.
- Aside daily information, tele-programmes and lexical knowledge Btx made also learning and simulation programmes available – with AUTOOL teachers could even organize their own course material

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

Installation of Information, Instruction and Training centres

- Creating a permanent place of information and training in the field of information processing at the teacher training college in Vienna (10th district)
- For testing and comparing different computers of different companies
- Delivering of hard– and software by IT-companies
- Supplying of rooms and furniture and covering the expenses of electricity and room-keeping by the BMUKS
- Expansion of further centres to the provinces (the Education Highway www.eduhi.at was one of them)

The instruction project „Computer-Education-Society" (C-E-S) of 1984/85

Outcome

- Informatics as a fourth cultural technique and compulsory subject at the AHS became a drive for further educational developments
- Elements of informatics instruction and various practical applications of informatics were extended to other subjects
- The teaching of basics on information and communication technology in the 7th and 8th school year of Compulsory Junior Secondary General School and of Secondary Academic School became a matter of course.
- The EDP-curricula of the medium and higher vocational schools were supplemented by the socio-economic and socio-political aspects of informatics