



# Virtual Education Network

## Technikfolgenforschung in Österreich

### Erste Österreichische TA-Konferenz

Österreichische Akademie der Wissenschaften

Institut für Technikfolgenabschätzung

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picture has been removed...



The Danube University of Krems is Austria's first and only Postgraduate University Center

The Danube University is a center of learning, based on teaching, research and Consulting

The Danube University is a public institution operating in the spirit of private enterprise

Prof. Dr. Johann GÜNTHER

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## Departments

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Department of Telecommunications  
Information and Media

Department of European Integration

Department of Cultural Studies

Department of Environmental and  
Biomedical Sciences

Department of Economics and  
Management Sciences

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Department of Telecommunications  
Information and Media



Prof. Dr. Johann Günther

**Instituts for**

**Telematics**

**Mediapedagogic**

**Electr. Publishing & Media Management**

**Informatics**

**Journalisme**

**Techn. Documentation**



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Department of Telecommunication  
Information and Media

**Main Subjects in the Department**

**Postgradual Courses**

**Research Projects**

**Consulting for different Companies**

**Seminars eg.**

**Internet Seminars for Companies**

**Internet Seminars for Teachers**

**Videoconferencing Seminars...**



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Department of Telecommunication  
Information and Media

**Main Subjects in the Department**

**VEN**

**Virtual Education Network**

**is one of the Research Projects  
financed by the European Union**



\* Changing needs of economy, but education system does not react

\* Education never ends

\* postgraduate education

\* half life period of education:

	2000		2005
employees	100		100
	100	80 from year 2000	
products	100		100
		20 from year 2000	



## Shiftings in the potential of manpower

in %	<u>1951</u>	<u>1961</u>	<u>1971</u>	<u>1981</u>	<u>1991</u>	<u>2001</u>
agriculture and forestry	33	23	14	9	6	4
industry and trade	41	47	43	41	36	30
service industry	26	30	43	51	59	66

working persons according to economy sectors in percent



## Number of youths will decrease

- \* from 1985 to 2000 by 33%
- \* number of employed persons is increasing
- \* we never before had so many people employed
- \* we need continuous training for the working people



## Education Organisation

- \* international economy has flat hierarchies  
react faster to changes
- \* between generalmanager and the customer  
just few steps
- \* „Business process Reengineering  
= elimination of hierarchies
- \* School System not like this: between Customer  
(=Pupil) and education minister 5 steps

1. Teacher
2. Director of school
3. Inspector of school
4. Inspector of the region
5. Ministry



## Single Fighter

- \* economy needs group dynamic
- \* in nursery school we do last group dynamic
- \* all school system just single fighters



## Monopoly of teachers

- \* children will be faced with  
unstable work and future
- \* Times people learned one job for the whole life
- \* Teachers have civil service status
- \* Teachers have no competition
- \* many young teachers unemployeed and better  
then many employed, but older teachers
- \* many teachers are not up to date
- \* information technology know how of Vienna  
teachers:

„digital homeless“ in the age of 30 to 45

only 15% wordprocessing programm  
only 7% calculation programm



## More International

- \* teaching is not linked to one region
- \* new media should be used all over Europe
- \* language is no problem any more
- \* new media for  
    traditional teaching  
    interactive learning



## In the present project several dimensions of distance teaching were researched:

- .Can different school types be served by the same teaching materials?
- .Can teaching materials be developed for different culture areas?
- .Does a broadband teaching network with central storage facilitate the work of local teachers?



In cooperation with colleagues from Finland and Greece an attempt was made to create a representative project for Europe.

- The Finns were responsible for Northern Europe
- The Greeks for the Mediterranean area and
- Austria for Central Europe.



**This field test shows**

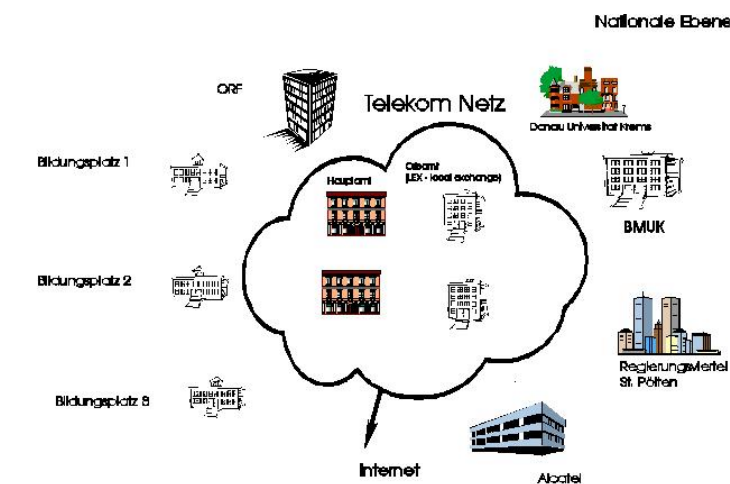
- that different types of schools can be served with the same teaching materials, which reduces the cost of development
- that pupils of different school types can learn from each other - sometimes more efficiently as from their teacher
- that teaching materials can be developed for different cultural areas (Greece=Mediterranean area, Finland=Northern Europe, Austria=Central Europe) and
- that by the broadband network a new form of distribution of teaching materials is established.

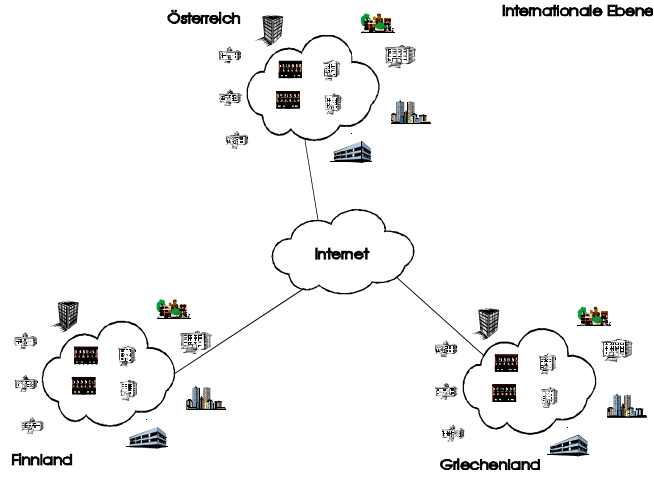




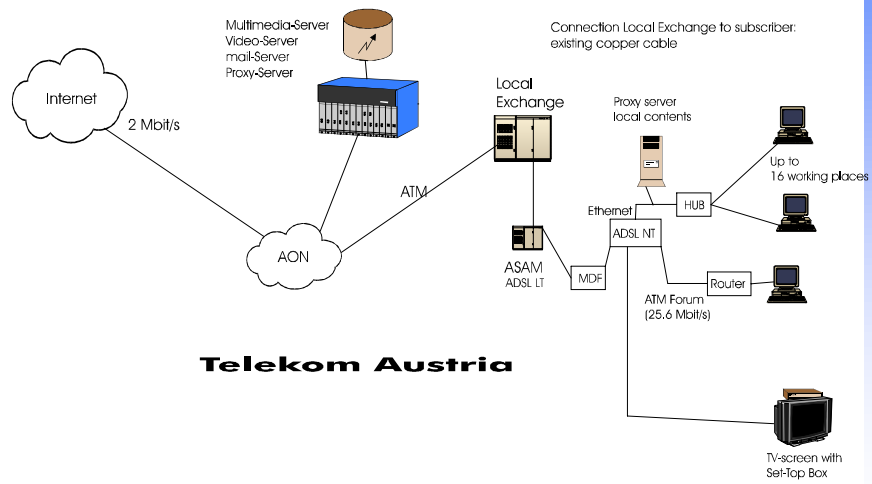
different school types:

- a vocational school
- a lower secondary school
- an upper school for general education
- a primary school



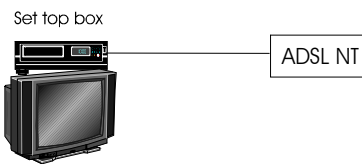
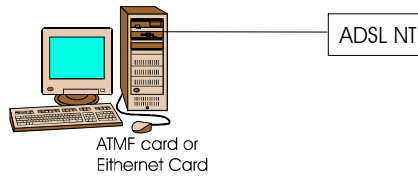


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**Telekom Austria**

Project VEN / ods02.cdr



Set top boxes will not be used in the first step of the project

Project VEN / adsl03.cdr

### Intercultural Communication

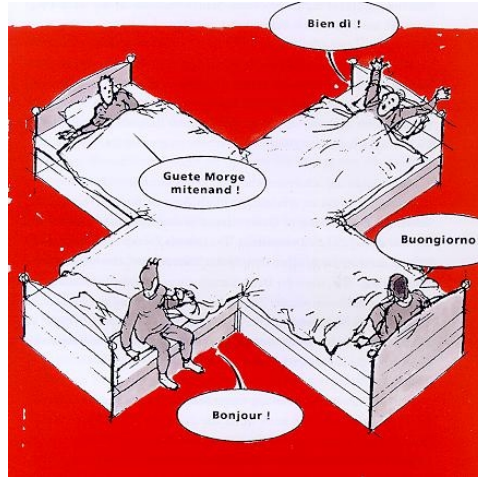
People are marked by their region (economically, society, legal ...)

- **Technical world**  
geographical structure, climate, technical standards, transportation, energy, ....
- **Economical world**  
increase of economy, BNP, trading balance, income per household, price level, available jobs, ....
- **Social-cultural world**  
age of society, income, level of education, cultural tradition, religion, way of life and other cultural facts
- **political-legal world**  
tax policy, policy of social support, political economy ...

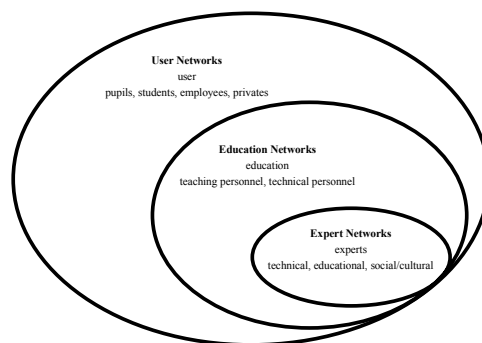
Die Sprache  
ist kein  
Hindernis

„WORLDI“  
= englisch für  
Non-Nativspeaker

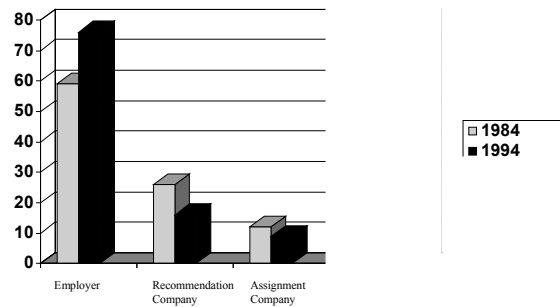
Local Language



3 Rings of the Educational Network



Decision for Postgraduate Education



## Shift of Skills

- \* 300 v.Chr. Change from „speaking-“ to „writting- cultur“
- \* today: change to „multimedia-culture“
- \* technologies like
  - Voice Mail
  - Videoconferencing
  - Voice recognition
- \* New qualifications needed