

The World Wide Web  
with Integrated Applications -  
a New Way of Learning?



Erich Neuwirth  
University of Vienna  
Austria



neuwirth@smc.univie.ac.at

The World Wide Web:  
Delivering Integrated Applications  
for a New Way of Learning?



Erich Neuwirth  
University of Vienna  
Austria



neuwirth@smc.univie.ac.at

Examples

<http://www.smc.univie.ac.at/~neuwirth/edmed96>

The World Wide Web:  
with Integrated Applications  
Using and Delivering  
Models for the Common Person?



Erich Neuwirth  
University of Vienna  
Austria



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The World Wide Web:  
with Integrated Applications  
We can do it**NOW!**



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University of Vienna  
Austria



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Views of the World Wide Web

- Hyperlinked static documents
- Typed files with viewers  
example: pictures
- Server based applications
- Client based applications

## Client side interactivity

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- Helper applications
- Plugins
- Client supplied runtime environment

## Helper Applications

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- Excel
- Screencam
- Adobe Acrobat
- XLispStat
- (almost) any other application which allows loading a file at startup

## Plugin Applications

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- Formula One/Net
- MIDI-Player
- Audio-Player
- Movies (AVI, Quicktime)
- Quicktime VR
- VRML

## Runtime built into Browser

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- JavaScript
- Java

## Kinds of Environments

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- Demos (little interaction)
- Fully interactive applications

## Special Browsers

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- MathCad
- Mathematica
  
- Technology probably made obsolete by Plugins

## Multimedia

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- Sound files
- MIDI files
- Video
- Animation
- VR

## Delivery problems

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- Development
- Bandwidth, bandwidth, bandwidth

## WWW as didactic delivery vehicle

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- Learning software or better learning environments made easily accessible

## WWW as didactic delivery vehicle

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- Realization possible with standard software

## WWW as didactic delivery vehicle

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- Software categories
  - standard software (not free)
    - » Excel
  - free
    - » XLispStat
  - Viewer free, authoring system not free
    - » MathCad, Mathematica, Word, Adobe Acrobat

## WWW as didactic delivery vehicle

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- Base infrastructure
  - partially accessible
  - easy to access and install
- (Technical) development experience available (at least partially)
- User knowledge available
- Easy to implement (except net access)

## WWW as didactic delivery vehicle

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- Basic Innovation:  
didactic resources
  - prepared and supplied centrally
  - used locally
- Teacher is selector and moderator  
**not lecturer**

## WWW as didactic delivery vehicle

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- Implementation through cooperation
  - didactic practitioners
  - curriculum designers
  - scientists with specialty areas
  - implementation experts

## WWW as didactic delivery vehicle

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- Challenges:
  - quality control (especially in the beginning)
  - Getting rid of traditional distribution channels  
(what happens to publishing houses and software distributors?)
  - How is it paid for?

## Examples on the Net

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<http://www.smc.univie.ac.at>  
<http://www.smc.univie.ac.at/teaching.html>  
[http://www.smc.univie.ac.at/  
-neuwirth/spreaded/spreaded.htm](http://www.smc.univie.ac.at/~neuwirth/spreaded/spreaded.htm)  
[http://www.smc.univie.ac.at/  
-neuwirth/spreaded/edmed96](http://www.smc.univie.ac.at/~neuwirth/spreaded/edmed96)

Interactive Applications and  
Educational Multimedia over the Web  
(Software resources and installation instructions)

## Examples on the Net

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<http://www.smc.univie.ac.at/~neuwirth>

Links to software producers and free programs

Interesting sites with resources for education

## Interactive didactic resources on the net

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- We can do it today
- Don't use missing infrastructure as an excuse

## Computers in Education

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- What did we gain?

## Computers in Education

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- What did we gain?

Interactive Learning Materials

## The Web in Education

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- What did we gain?

## The Web in Education

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- What did we gain?

Easy access to many resources

## Interactive Applications on the Web

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- Making the new type of material accessible

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with Integrated Applications -  
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Perhaps,  
but in any case

The World Wide Web:  
a delivery mechanism  
for interactive learning  
environments

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The World Wide Web:  
a delivery mechanism  
for interactive learning  
environments

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making interactive tools  
available for new ways of learning

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