

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



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



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Examples

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

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



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



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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

- Helper applications
- Plugins
- Client supplied runtime environment

Helper Applications

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

Plugin Applications

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

Runtime built into Browser

- JavaScript
- Java

Kinds of Environments

- Demos (little interaction)
- Fully interactive applications

Special Browsers

- MathCad
- Mathematica

- Technology probably made obsolete by Plugins

Multimedia

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

Delivery problems

- Development
- Bandwidth, bandwidth, bandwidth

WWW as didactic delivery vehicle

- Learning software or better learning environments made easily accessible

WWW as didactic delivery vehicle

- Realization possible with standard software

WWW as didactic delivery vehicle

- 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

- 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

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

WWW as didactic delivery vehicle

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

WWW as didactic delivery vehicle

- 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

<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

<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

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

Computers in Education

- What did we gain?

Computers in Education

- What did we gain?

Interactive Learning Materials

The Web in Education

- What did we gain?

The Web in Education

- What did we gain?

Easy access to many resources

Interactive Applications on the Web

- Making the new type of material accessible

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with Integrated Applications -
a New Way of Learning?

Perhaps,
but in any case

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

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

making interactive tools
available for new ways of learning

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