



School of Applied Linguistics

Structure!

You Get More than You See

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This Talk is About Natural-Language Text Documents and ...

Tools

- Word processors
- Editors

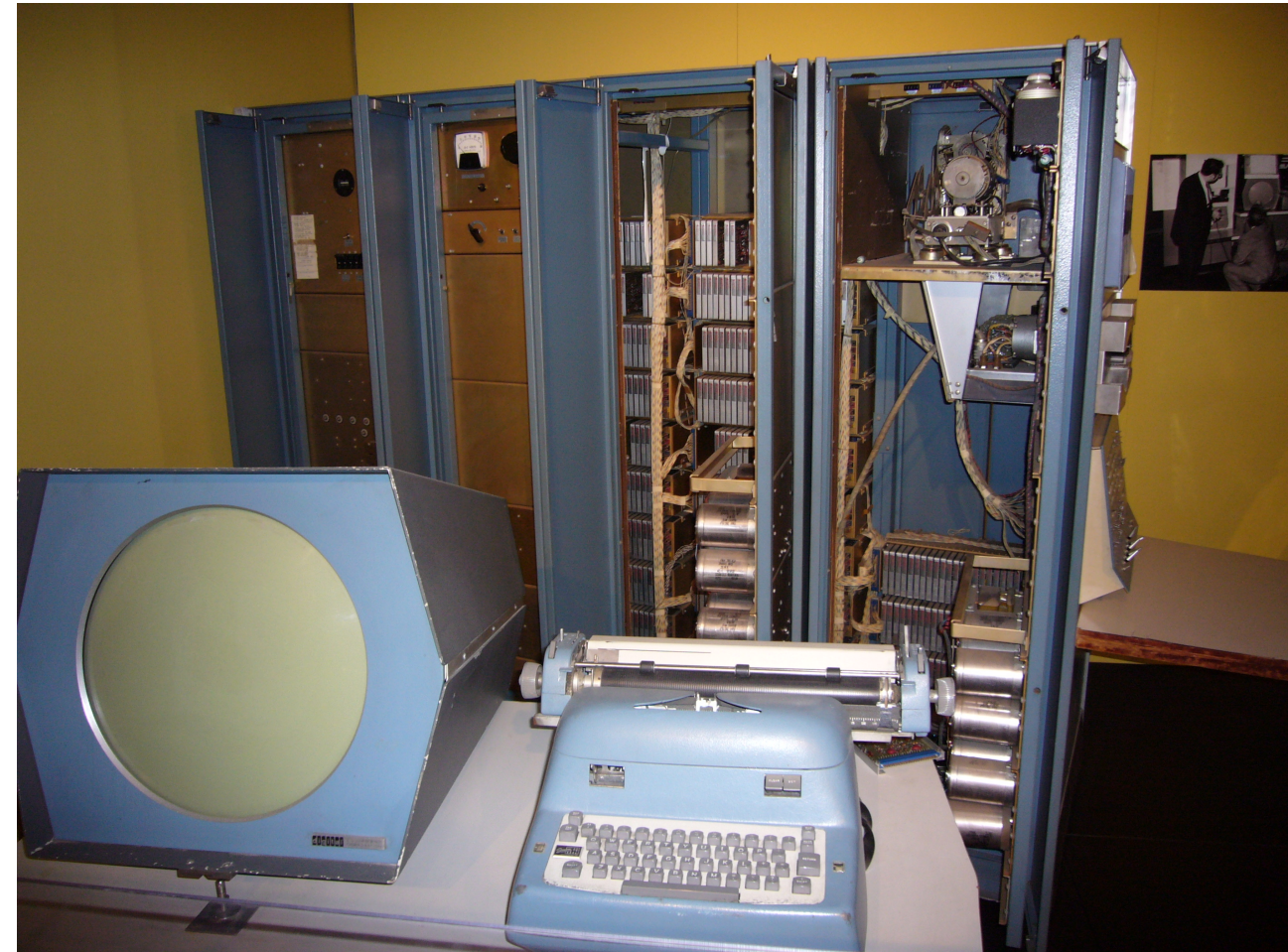
Practices

- Word processing
- Editing
- Formatting
- Distributing, Displaying, etc.

How to Produce Texts/Documents (1960s)

Editors

- 1960s: Editors for programmers
(in universities and companies)
Focus: write and edit text and code
- Code is text, isn't it?



Colossal Typewriter, by Matthew Hutchinson - <https://www.flickr.com/photos/hiddenloop/307119987/>, CC BY 2.0,
<https://commons.wikimedia.org/w/index.php?curid=1587541>

How to Produce Texts/Documents (1970s)

Computers get integrated into offices

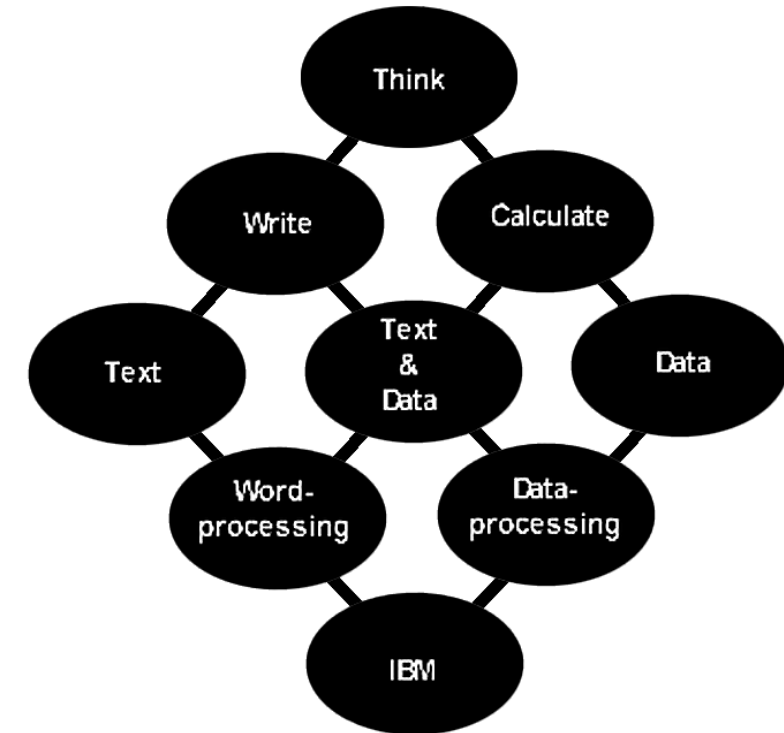
- IBM conquers the office and offers support for spreadsheet calculation, document creation, etc.
- «Office Automation», «Word Processor» (and «word processing»), «Paperless Office»
- Word processor is a **physical machine**
- First developments of **software** for micro computers, e.g., Electric Pencil



«Word Processor» and «Word Processing»

- Concept and term from ca. 1955 by Ulrich Steinhilper (German IBM typewriter sales executive)
- Analogy to: data processing
- Not used actively by IBM until 1970/1971, the «Electric Typewriter Division» turns into «Office Products Division»

“Word processing,” a concept that combines the dictating and typing functions into a centralized system, is replacing the one-man, one-secretary, one-typewriter idea in a growing number of firms. By organizing the flow of office correspondence on a more efficient basis, word processing is becoming to typing what Henry Ford’s assembly line was to the original methods used for automobile making.

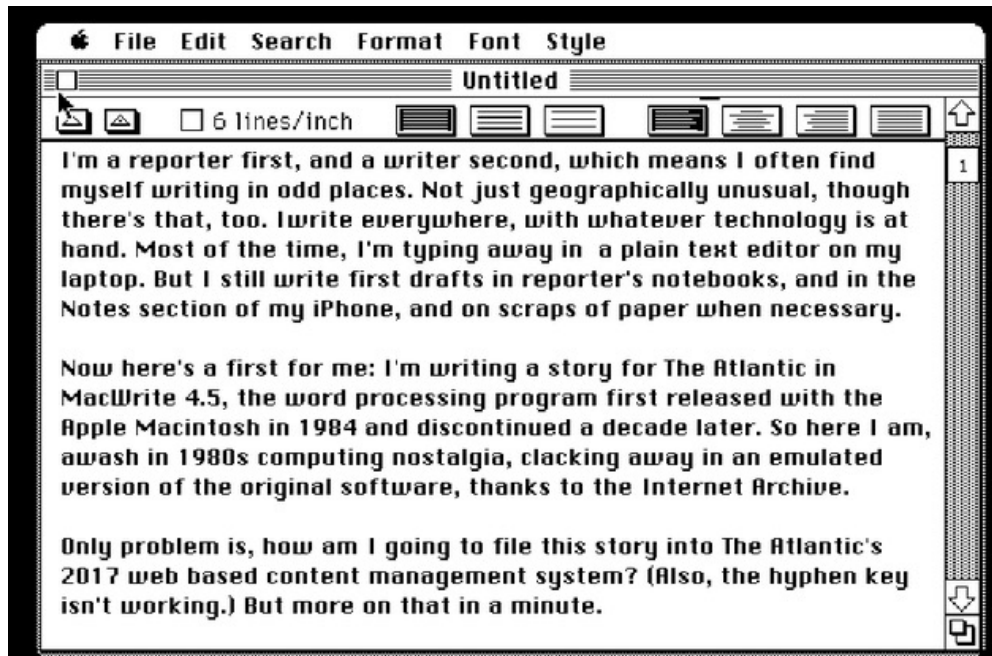


J.G. Zalkind, “Automatic Typing Keys in New Advances,” *Administrative Management*, vol. 31, no. 11, 1970, pp. 36-44.

How to Produce Texts/Documents (1980s)

Computers for everybody: personal computer (PC)

- Developments for MS-DOS:
WordStar, WordPerfect, MS Word
- Developments for Apple: MacWrite



WordStar on MS-DOS by http://www.warwickshire-ecosist.org.uk/subject/ict/miscellaneous/user_interfaces.html,
Fair use, <https://en.wikipedia.org/w/index.php?curid=37398368>

Concepts from the 1980s

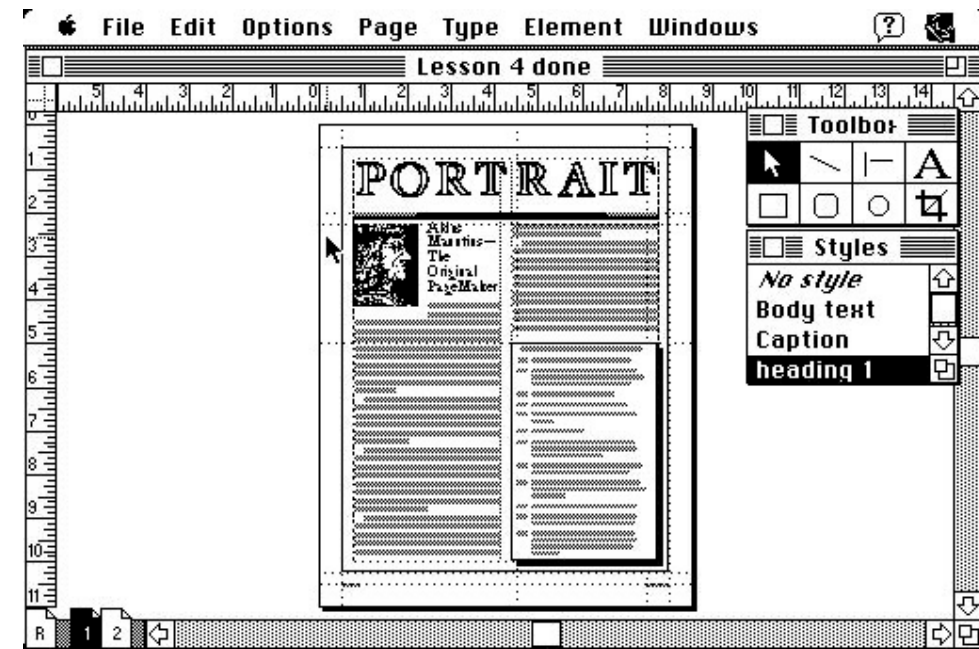
WYSIWYG

What You See Is What You Get

- Write and edit using a view very close to what one will get on a **printed page** (later also used for web pages)

Desktop Publishing

PageMaker (Aldus for Apple), QuarkXPress (for Apple), FrameMaker (Adobe)

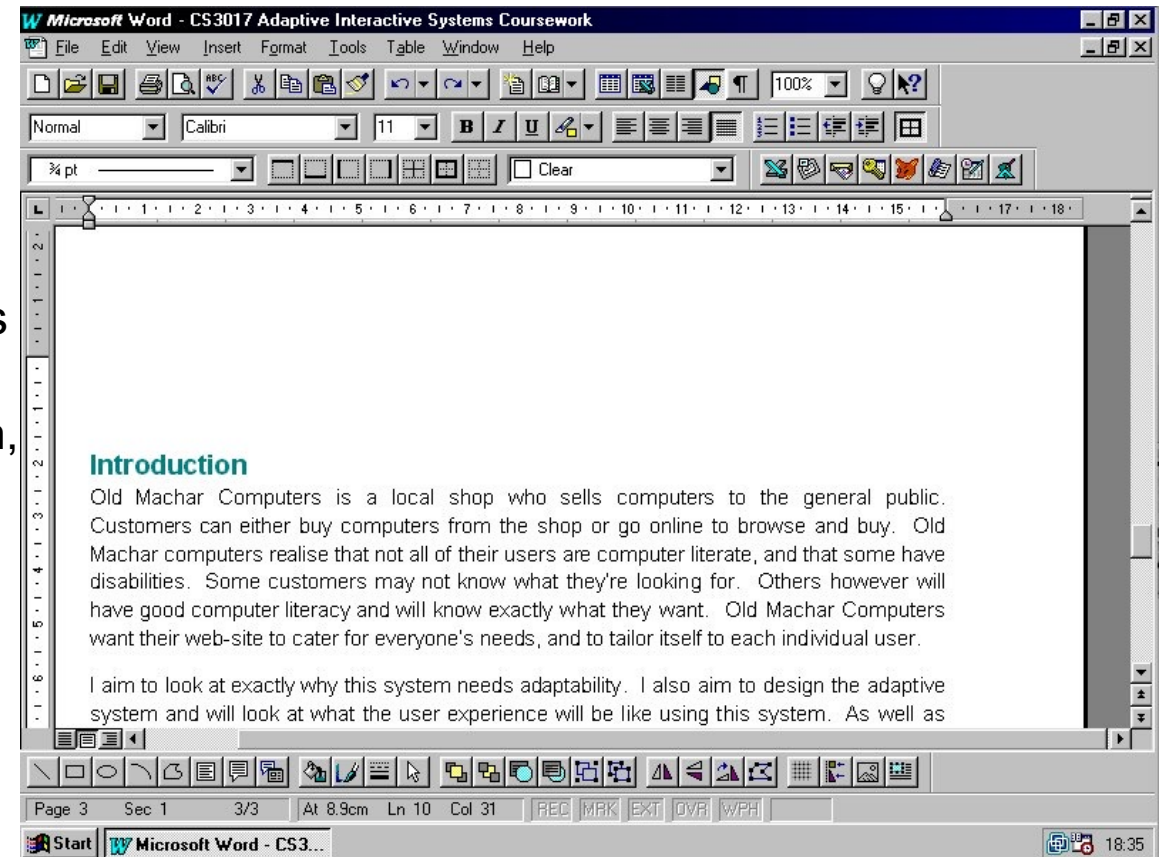


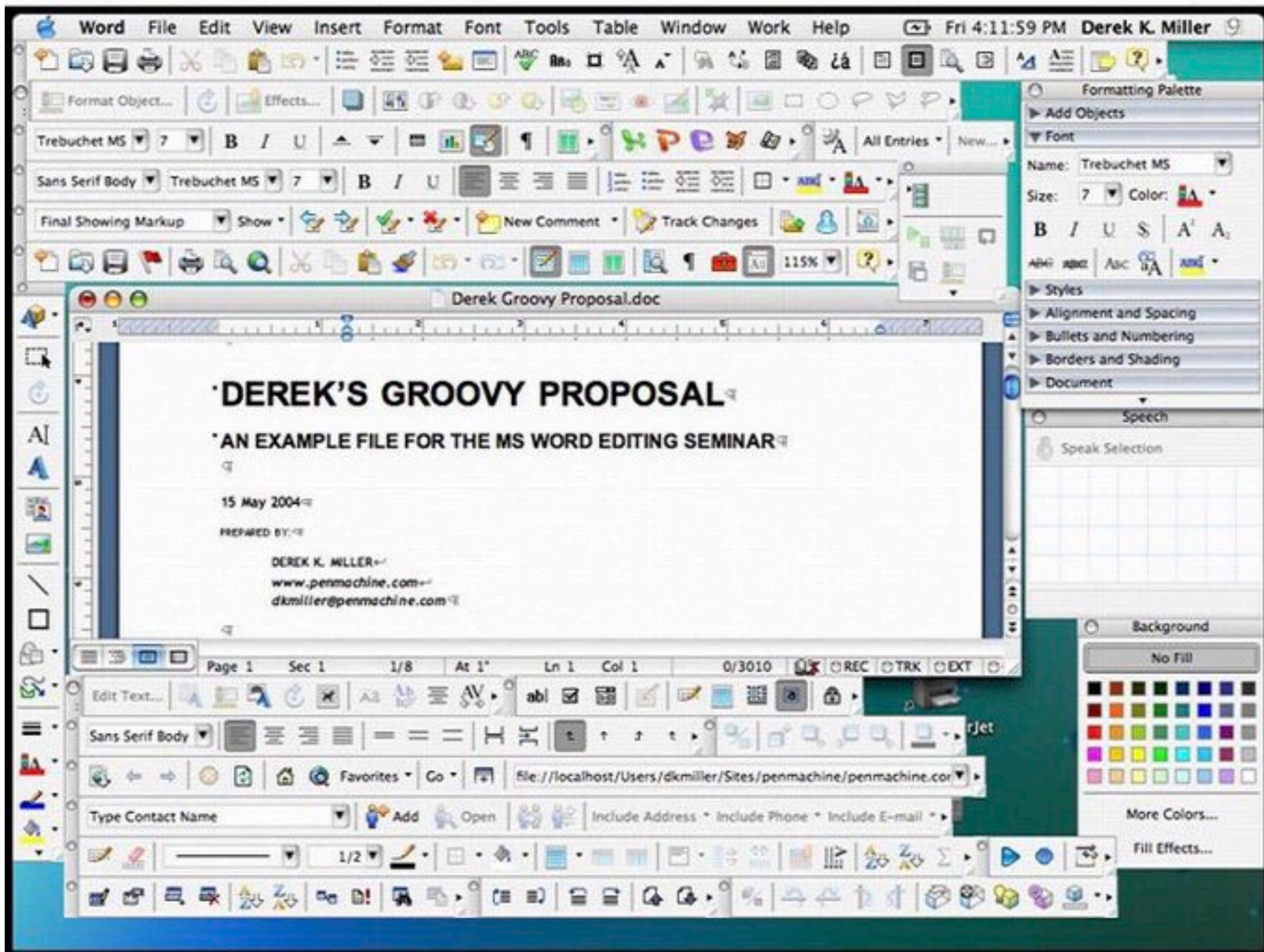
Screenshot PageMaker

How to Produce Texts/Documents (1990s)

Standardization

- MS Word becomes the de-facto Standard for user interface and file format, the former market leader WordPerfect disappears
- Counter developments:
 - 1980s: GNU Project by Free Software Foundation, later Linux, a word processor is needed
→ LibreOffice (via StarOffice, etc.)





How to Produce Texts/Documents (2000s)

Web, Internet, open-source programs

Google Docs:

- originally «Writely» (web-based, collaborative word processor)
- based on own and purchased developments
- exports files in MS Word format

LibreOffice

- originally: **Star Office**
 - 1985 developed by Star Division (bought by Sun Microsystems, bought by Oracle)
 - released as open source 1999 by Sun
 - further developed as **OpenOffice** by The Document Foundation (TDF)
 - further developed as LibreOffice
- exports files in MS Word format

How to Produce Texts/Documents (2010s)

Smaller, faster, further in the cloud

- Google-Docs as established collaborative tool, always accessible from everywhere
- Microsoft tries to keep the pace, but its cloud-based Office version comes rather late (and not for free)
- **New trend: non-distractive editors**

iA / Writer



Konzentriert schreiben. iA Writer bietet ein einzigartiges Schreiberlebnis, mit dem Sie sich auf Ihren Text konzentrieren und klar verständliche Texte schreiben können. Dank der leistungsstarken Benutzeroberfläche können Sie Ablenkungen vermeiden. Sie können sich auf das konzentrieren, was Sie sagen möchten, und Sie können Ihren Text leichter strukturieren und kürzen. Die Anwendung wird mittlerweile von einer halben Million Menschen weltweit verwendet und ist für Mac, iOS, Windows und Android verfügbar.

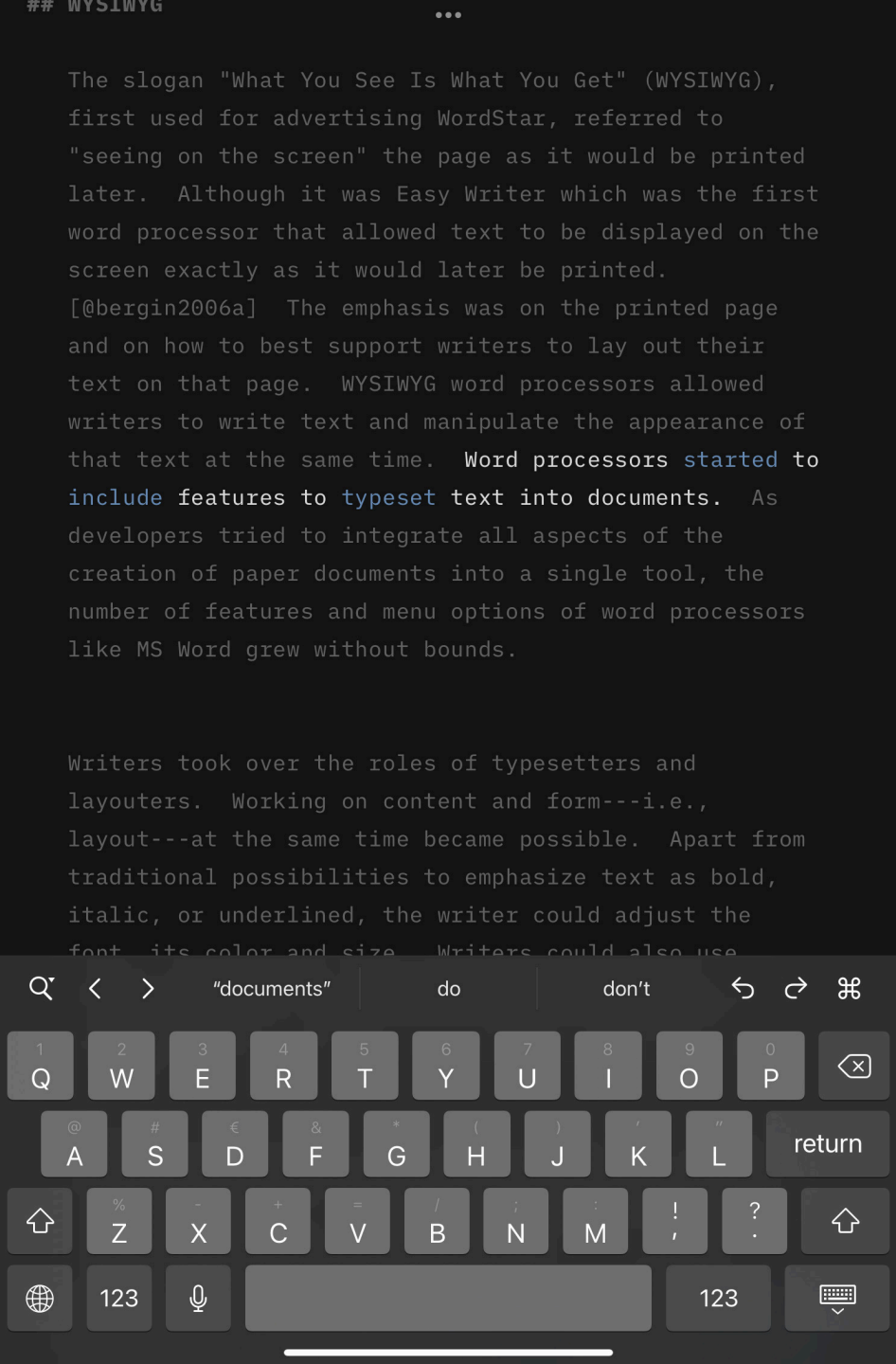
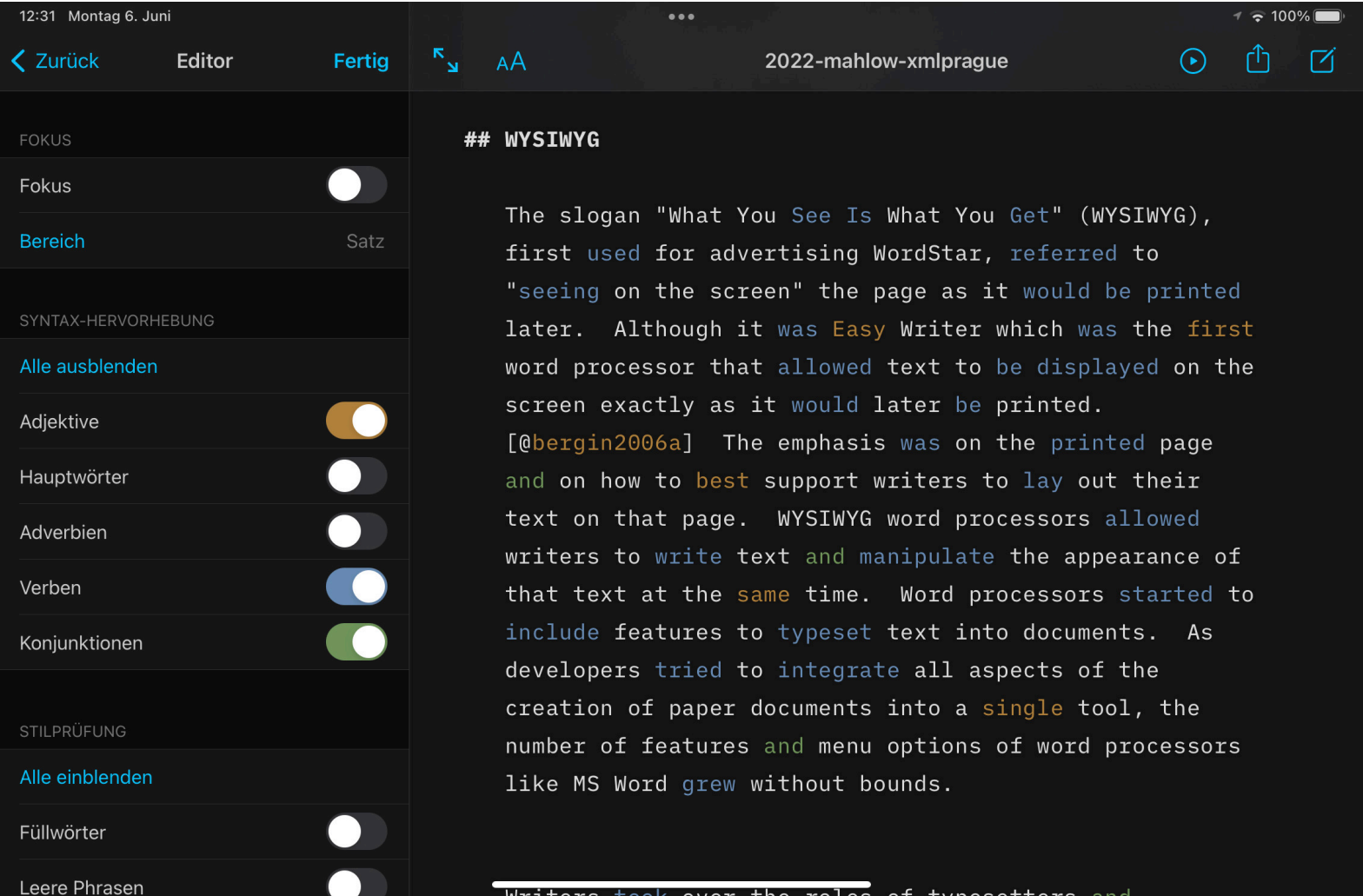


How to Produce Texts/Documents (2020s, Trends)

I don't care about tools, just let me write!! → **WYSIWYG does not matter!**

- Pandoc allows conversion from almost any text format to almost any other text format
 - everyone writes what they want with, the desired file format is generated later on
- Editors have optimized versions for computer (desktop/laptop), smartphone and tablet for different operating systems (Windows, iOS, OSX, Android, ...)
 - Start text on the smartphone, append on the laptop, change on the tablet, forward from the smartphone ...
- More and more new input options (dictation, scanning, virtual keyboards with arrangement for one-handed or two-thumbs operation, etc.).
- «responsive design»
- Automatic fitting of non-textual media
- No one single target format!

iAWriter on my iPad



WYSIWYG

The slogan "What You See Is What You Get" (WYSIWYG), first used for advertising WordStar, referred to "seeing on the screen" the page as it would be printed later. Although it was Easy Writer which was the first word processor that allowed text to be displayed on the screen exactly as it would later be printed. [Bergin2006a] The emphasis was on the printed page and on how to best support writers to lay out their text on that page. WYSIWYG word processors allowed writers to write text and manipulate the appearance of that text at the same time. Word processors started to include features to typeset text into documents. As developers tried to integrate all aspects of the creation of paper documents into a single tool, the number of features and menu options of word processors like MS Word grew without bounds.

Writers took over the roles of typesetters and layouters. Working on content and form--i.e., layout--at the same time became possible. Apart from traditional possibilities to emphasize text as bold, italic, or underlined, the writer could adjust the font, its color and size. Writers could also use format templates for documents which render the text according to its structure and defined appearances for headings,

Fokus-Modus aktivieren
- Satz
Absatz
Schreibmaschinen-Modus

Syntax ausblenden
✓ Adjektive
Hauptwörter
✓ Adverbien
✓ Verben
✓ Konjunktionen

Stilprüfung aktivieren
Füllwörter
Leere Phrasen
- Überflüssige Wörter
Eigene Kriterien

```
.SUFFIXES: .md .html .xml .pdf

.md.html:
    pandoc -s -t html --citeproc $< > $@

.md.pdf:
    pandoc -o $@ --citeproc \
        --bibliography=${HOME}/Library/texmf/bibtex/bib/mahlow.bib \
        --pdf-engine=xelatex $<

# XML = DocBook 5.0
.md.xml:
    pandoc -s -t docbook --citeproc \
        --bibliography=${HOME}/Library/texmf/bibtex/bib/mahlow.bib \
        --template pandoc/fixed.db5 $< \
        | xsltproc xslt/postprocess.xsl - > $@

clean:
    rm -f *~ *.html *.xml *.pdf
```

Document Structure vs. Text Structure

Writing Technology

- People write texts, not documents, but want to have some visual impression
→ a default document?
- Rendering and distribution in various formats using various tools
- Allow for yet unknown document formats

Document Engineering

- No one single target document format
- Dynamic rendering possible and necessary
- Allow for some default rendering (size, font, color, etc.)

**During writing and for writers,
document structure becomes less important than text structure!**

Structure!

