

# Thema 7

## Hypertext-Systeme 1

**Kevin Haack**  
Universität Paderborn  
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# Übersicht

- Abgrenzung
- Geschichte
- Funktionen

# Abgrenzung

- Memex (1945)
- Hypertext-Systeme 2
- closed hypertext systems

# Hyperspace ohne Internet

- Hypertext kann man sich kaum vorstellen ohne Internet
- wie könnte das sonst aussehen?

- 1945: As we may think
- 1965: A File Structure for the Complex, the Changing and the Indeterminate
- 1980: ENQUIRE am CERN
- 1983: HyperTIES für IBM PCs
- 1987: HyperCard für MAC
- 1988: Hypertext on Hypertext
- 1989: Information Management: a Proposal
- 1990: Windows Help & Hypertext hands-on

- einzelne Systeme betrachten
- warum durchgesetzt, warum nicht?
- Bedienmöglichkeiten
- Vergleich zu Memex, welche Konzepte werden abgedeckt?
- Was haben die Systeme versprochen und was gehalten?
- Vannevar Bush points out, that classical filing methods like sorting by alphabetical order are artificial and do not correspond to the way humans think. [Bush 1945?]
- more natural

## Funktionen - Beispiele

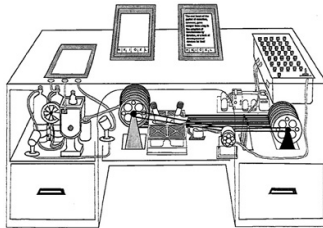
- tote Links
- lost in Hyperspace
- Mensch-Computer-Interaktion
- Wechselwirkung: Bedarf - Entwicklung

- maschinellen Unterstützung des menschlichen Gedächtnisses und des assoziativen Denkens
- Schreibtisch
- Kombination von elektromechanischen Kontrollen und Mikrofilmgeräten
- Illustrationen im Life Magazine 19. November 1945
- kopfmontierte Kamera sowie eine Schreibmaschine, die über Spracherkennung verfügen und die Texte mittels Sprachsynthese vorlesen soll.



# Memex Funktionen

- Seiten durch Verknüpfungen (associations) aufeinander verweisen zu lassen.
- mit Hebeln vor- und zurückblättern sowie Dokumente speichern und wieder aufrufen
- berührungssensitiven Bildschirmen



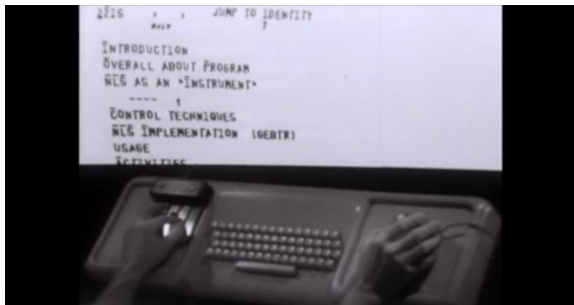
- Framework
- hypertext offers several different branches to assemble the meaning behind the written text
- more than "decent writing system" [Nelson 1974?, p. DM 59]
- "docuverse" - ein elektronische universale Bibliothek



- Kommentare, Notizen und Verknüpfungen – between places in documents, and leave them there for others [Nelson 93, p. 10]
- royalty and credit to the originator [Nelson 93, p. 10]

## NLS: oN-Line System

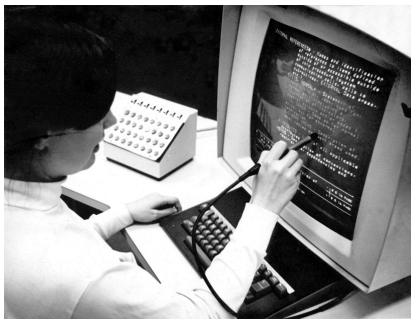
- “augment human intellect”
- computer screens can and should be used to display text [Engelbart 1962]
- directly interact [Engelbart 1962]
- first time-sharing computers (six terminals)



- Links
- mouse, windows, interactive text editing

# HES: Hypertext Editing System

- IBM/360 Model 50 mainframe
- online production of printed documents and the exploration of the hypertext concept



- Invisible control information allows the printing of the entire hypertext in linear form
- pointer manipulation to text fragments
- If one instance of text is modified the changed text will show up in all other places as well [Yankelovich et al. 85, p. 23]

# FRESS: File Retrieval and Editing System

## Funktionen

- windows
- tag: one-way link
- jumps: bi-directional links
- backtrack through a sequence of links



# NoteCards

■ XXXX

## Document Examiner

- Document Examiner: Delivery Interface for Hypertext Documents [Walker 87, p. 307]
- inspired by Doug Engelbart NLS
- record. It has a title and contains the description
- unique identifier
- book metaphor. A document-like flow of text is created by assembling a sequence of records into a single window
- records in Symbolics' hypertext are glued together by inclusion links.
- Inclusion, Precis, Crossref, Implicit [Walker 87, p. 310]
- four panes. The content area, the Candidates and Bookmarks pane and the command region below.
- A click on any link does not immediately jump to the destination; instead the link is added to a list of candidates
- bookmarks
- necessity to integrate annotations with versioning

- simplified approach in browsing the hypertext [Nielsen 90, p. 120]
- MS-DOS
- click on hyperlinks if a mouse or a touch screen is present.
- all interactions can be performed with the arrow keys
- article. It has a title and a short description about its content. The title is used to automatically place links wherever the very same text phrase appears in other articles
- description is used as a preview for a link

- rectangular areas on top of the text layer

- 1990 by Mark Bernstein
- Macintosh (Portierung für Windows)
- Hyperlinks do not have to be coded, they are created and directly manipulated with the mouse
- diagram mode visually reveals the logical structure of arguments
- network of writing spaces
- nodes inside a writing space can link to any other writing space
- Images can be placed into the flow of text
- Links are not highlighted
- links can point to several targets at the same time
- conditions to links