

Printing



Information Technology and Social Life

Feb. 7, 2005



Printing

- Typesetting in wood preceded printing press
- Invention of movable type; Gutenberg - mid-fifteenth century
- By end of century, more than 230 presses in Western Europe
- Mechanized type - Linotype - 1884 - Ottmar Mergenthaler - molded lines of type in alloy.
<http://www.woodsidepress.com/LINOTYPE.HTML>
http://en.wikipedia.org/wiki/Linotype_machine
- 1913 - keyboards were attached; used telegraph-like technology
- Photosetting technologies using film
- 1960s-use of CRT in photosetting process
- Digital and laser printing



Discuss the effects of printing on...

- Scholars
- Scientists
- Explorers
- Religion
- Government



Printing

- Literacy fueled market for books; presence of books helped to increase literacy
- Scholars - access to identical documents; textual criticism developed
- Sciences - speeded publication of scientific achievement; Explorers - publicized discoveries
- Religion - disseminating views; changed view of religion from mythical to rational; reduced intermediation of priesthood.
- Government - individuation and rule of law; development of political communities
- Governments became concerned with leashing power of press and controlling its access.
- Most important - print freed Western Europe from the constant anxiety of preserving achievements of the past.
- Tensions between traditional and pragmatic spurred revolutions.
- Mid to late 18th century - print “served not only as a means of multiplying and disseminating the works of an existing culture, but also as a means of transforming that culture and the nature of its literary producer.”
- Authorship became important; origin of idea of copyright.
- Market for print aimed at propertied class.



Jay David Bolter

- Co-Director of the Wesley Center for New Media Research and Education
- Involved with School of Literature, Communication, and Culture; Information Design and Technology; Media Studies at Georgia Institute of Technology.
- Research areas: Augmented Reality; Digital Art and Design; Media Theory
- Wrote *Writing Space: The Computer, Hypertext, and the History of Writing* and *Remediation: Understanding New Media* with Richard Grusin.
- Worked with Michael Joyce and John Smith to create Storyspace, an application for authoring interactive hypertext fiction.



Seeing and Writing

- Certain elements of computer text are closely based on print forebears, while others have no basis in earlier technologies.
- Influence of history of typography to inform understanding of computer
- Letter forms stabilized in 16th-18th centuries have changed little
- Developments in 19th century - steam-driven presses and Linotype
<http://www.woodsidepress.com/LINOTYPE.HTML>
http://en.wikipedia.org/wiki/Linotype_machine
- Numerous typefaces created in late 19th and 20th Century
- Book production remains conservative
- Computer can either reinforce or overturn the tradition of typography



Evolution of type

abAB

Didot

Bodoni



Electronic Letters & Pages

- Merging role of writer and typographer
- Limitations of computer screen
- Permanence vs. transience
- Mathematical creation of letters
- Books, simple and clean layout; magazines and newspapers, different texts compete for attention
- Movement of notes from margins to bottom and later end of texts.
- Windows and hyperlinks
- Animation- unstable, moving text



Graphics

- Phonetic writing - dichotomy of pictures and text
- Printing processes, slow evolution in order to integrate images
- Now, books still conservative in their use of images, advertising, magazines, and newspapers subvert.
- Diagrams - between text and graphics (page itself often represented as a grid)
- Tufte - “data graphics are paragraphs about data and should be treated as such.”
- Author has responsibility for reader’s experience; animation reduces readers’ ability to control pace.