

Digital Printing

Direct to Print or Computer to Print

Conventional Method

- ◆ Writing and editing
- ◆ Design
- ◆ Typesetting
- ◆ Pasteup
- ◆ Graphic Arts Photography
- ◆ Image Assembly
- ◆ Plate making
- ◆ Presswork
- ◆ Finishing and binding

Desktop Method

- ◆ Writing and editing
- ◆ Design
- ◆ Computer layout and page makeup
- ◆ Proofing
- ◆ Imagesetter output
- ◆ Platemaking
- ◆ Presswork
- ◆ Finishing and binding

Desktop Method, **Direct to Plate**

- ◆ Writing and editing
- ◆ Design
- ◆ Computer layout and page makeup
- ◆ Proofing
- ◆ Platemaking
- ◆ Presswork
- ◆ Finishing and binding

Desktop Method, **Direct to Print**

- ◆ Writing and editing
- ◆ Design
- ◆ Computer layout and page makeup
- ◆ Proofing
- ◆ Presswork
- ◆ Finishing and binding

Document reproduction

- Copiers
 - ◆ Xerox Docutech
 - ◆ Kodak Lionheart
 - ◆ Heidelberg Digmaster



Scan once, store digitally, print many

■ Features

- ◆ Electronic cut and paste
- ◆ Duplexing
- ◆ Imposition
- ◆ Screening
- ◆ Page numbering
- ◆ Image variations
- ◆ Binding

Ink jet printing

■ Variable printing

- ◆ Address labels
- ◆ Computer letters
- ◆ Sweepstakes letters
- ◆ Direct mail

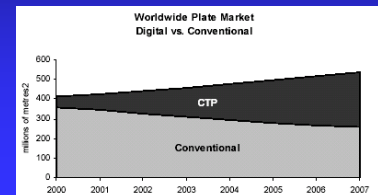
Ink jet printing

■ Principle

- ◆ Microscopic droplets of ink squirted from a print head with one or more nozzles
- ◆ Electrostatic charges deflect ink droplets to the image area

Computer to plate

- ◆ Bypass film output
- ◆ Image plates from computer
- ◆ No film based proofing



Direct to Print

■ Computer to plate – on press

- ◆ Direct imaging
- ◆ Waterless or conventional
- ◆ In register, 4 – color

Digital Printing

- Not a press
- Digital printer
 - ◆ Computer to output
 - ◆ Toner based (electro ink)



Canon digital

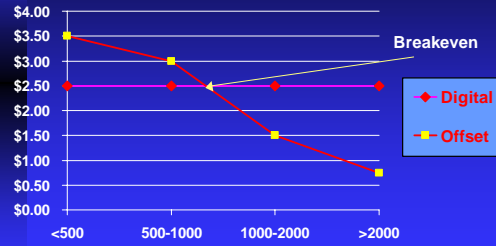


Heidelberg Nexpress

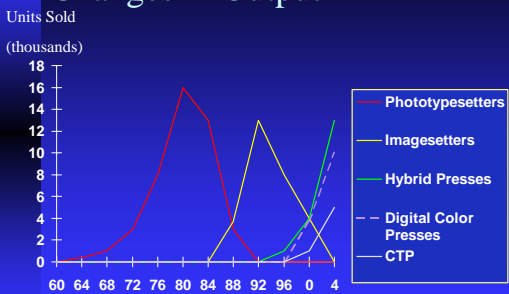
On-demand Printing

- Just-in-time
- Variable imaging capabilities
- Short run capabilities
- Higher cost for short-run conventional

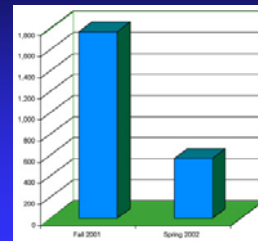
Offset vs. Digital



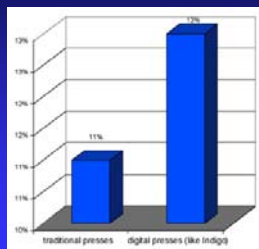
Changes in Output



U.S. Printing Establishments Planning to Buy One or More Imagesetters



Short-Run Color as a Sales Opportunity, Traditional Presses vs. Digital Presses



Spring 2002