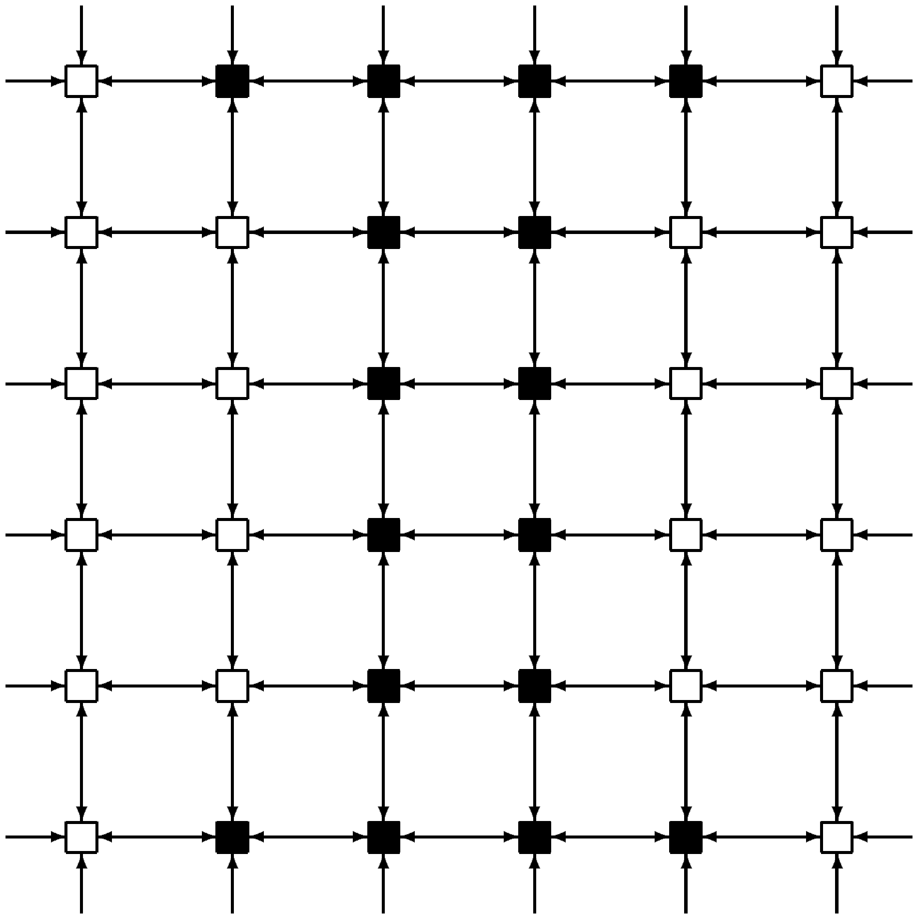
IV Journal Structure

1 Text Formats

A typeset layout such as this one displays the structure of a text directly to a human reader. Many different electronic data formats can produce the same layout.

Typeset Layout of a Sample Text



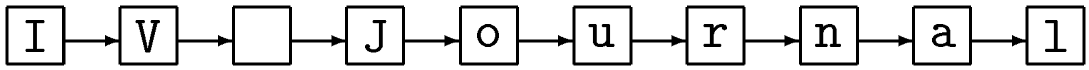
Geometric Data Format

page

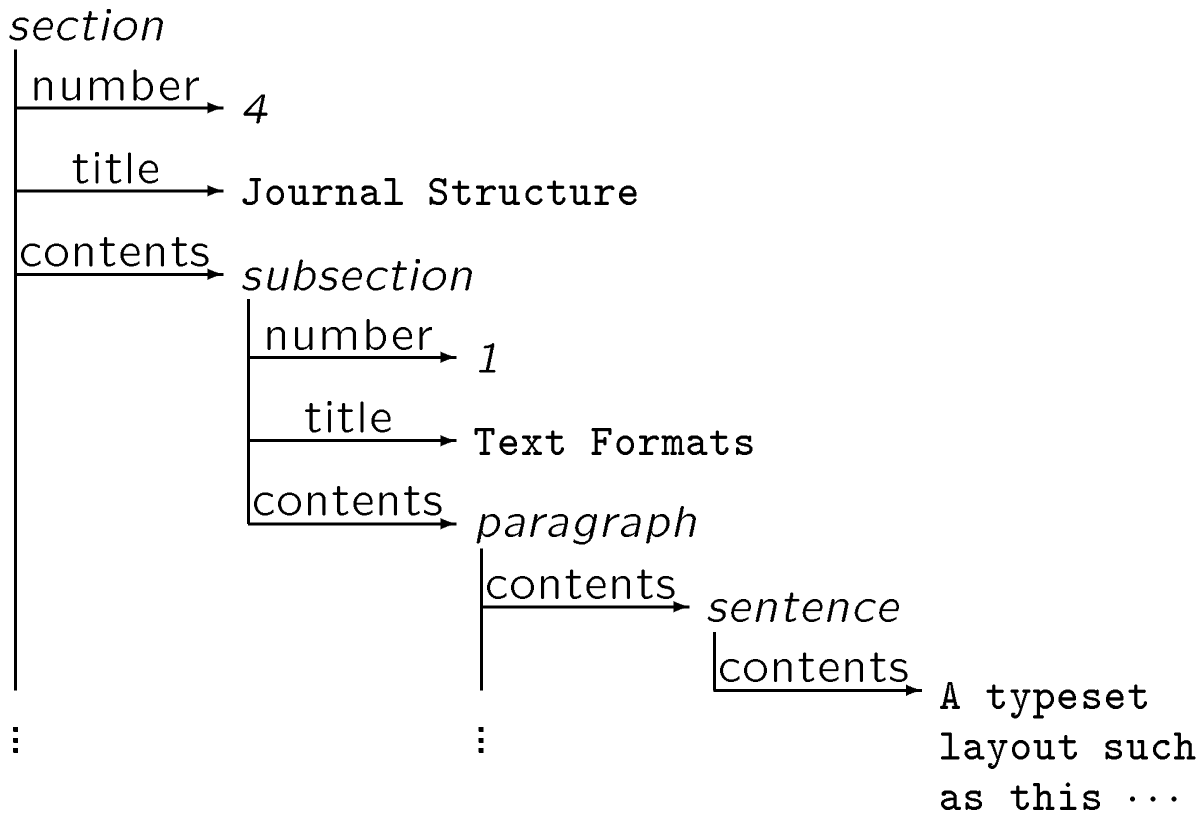
- size → *3 in. × 3 in.*
- margins → *t: .5 in, b: .5 in, l: .25 in, r: .25 in*
- contents → *line*
  - type → *12pt boldface*
  - justify → *justify left, ragged right*
  - contents → **`IV Journal Structure`**
- space → *.375 in*
- contents → *line*
  - type → *11pt boldface*
  - justify → *justify left, ragged right*
  - contents → **`1 Text Formats`**
- space → *.25 in*
- contents → *line*
  - type → *10pt roman*
  - justify → *justify left and right*
  - contents → **`A typeset layout such as this one dis-`**

⋮

Typographic Format



Sequential Format



Structural Format

$$
\begin{tikzcd}
\textit{normal function} \arrow[dr, "\text{actor}"] \arrow[ddr, "\text{role}"'] & & \\
 & \textit{typeset layout} & \\
 & \textit{communication} \arrow[dr, "\text{medium}"] \arrow[ddr, "\text{receiver}"'] & \\
 & & \textit{visual} \\
 & & \textit{human}
\end{tikzcd}
$$

Semantic Format

Summary of Textual Formats

1. Geometric
   - Bitmap, Pixel Image
   - dots, coordinates
2. Typographic
   - PostScript, DVI, MacWrite, TEX, *troff*
   - characters, fonts, point sizes, lines, pages
3. Sequential
   - ASCII, Character Set
   - characters, cases, control characters
4. Structural
   - None yet—LATEX, AMSTEX, SGML are close
   - sections, paragraphs, titles, sentences
5. Semantic
   - Knowledge Base, Semantic Net
   - concepts, objects, predicates, relations

5 Roles in Scholarly Publication

1. *author*—writes the text

2. *editor*—judges quality and relevance

3. *publisher*—announces and makes available

4. *archivist*—preserves

5. *readers*—read, use, cite

Value of Journal Publication

1. *certification* as a significant contribution

2. *standardization* for discussion, citation

3. *distribution* to current readers

4. *archiving* for future readers

The Chicago Journal of Computer Science

- Published by MIT Press
- Cover theoretical computer science
- LaTeX format—already used by authors
- Market to libraries—cheaper than printed journals
- Allow copying, printing, integration in local database, ...
- Distribute by *ftp*, *Gopher*, *WAIS*, ...