User and Designer Mental Models of an Article

User’s Mental Model: Article
This model is from the perspective of a scientist looking up an article on a publisher web site.

Mental Image

Related Mental Models
Component Models
- Citation
- Author
- Abstract
- Reference
- Table/Figure

Models That Use This Model
- Journal
- Reprint
- Literature Review

Key Assumptions
- Articles are peer reviewed and published in scientific journals.
- Articles are first published in the journal and are later available online from the publisher’s web site.
- Articles are available in a publisher’s online database.
- When searching for articles, the full text of the article’s body is no different than the article’s meta-data.
- Paying for individual articles or valuable lists of articles is a reasonable business expense.
User and Designer Mental Models of an Article

Key Terms

- **Article**: A presentation of the results of a scientific inquiry or analysis. (NT: review article)
- **Review Article**: A type of article that does not report experimental data but rather provides summary and analysis of a field of inquiry based on other articles. (BT: article)
- **Title**: A specific, descriptive name of an article.
- **Author**: A person who contributed to the scientific findings described in an article.
- **Citation**: An article’s complete publication information. (NT: reference, forward citation)
- **Reference**: Citation for another article that are referred to in the current article. (BT: citation)
- **Forward Citation**: The citation of an article that has used the current article as a reference. (BT: citation)
- **Endnote**: An in-text indication of a reference.
- **Abstract**: Short paragraph that summarizes an article’s findings. Abstracts are used to determine whether or not to read articles.
- **Introduction**: General explanation of the topic, justification for research, and presentation of hypotheses.
- **Conclusion**: Analysis and interpretation of the findings.
- **Table**: Tabular display of data.
- **Figure**: An illustration, often a graphical display of data.
- **Reprint**: Print-quality paper reproduction of an article, usually obtained from an author or a publisher.

Script

This script shows the process of searching for and purchasing a specific article in an online system.

```
Start: Find online catalog
       Enter identifying information
       Initiate search
       View search results
       Check and re-enter identifying information
       Is target present in catalog?
       No → Finish: Abandon catalog search
       Yes → Do results contain target?
       No → View abstract
       Yes → View & save article
       Purchase article?

Finish: Task complete
```
User and Designer Mental Models of an Article

Designer’s Mental Model: Article
This model is the designer’s mental model of an article and its storage in the system.

Mental Image (Data Display component)

<table>
<thead>
<tr>
<th>Article: Collection of related information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta-data:</td>
</tr>
<tr>
<td>Authors</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Abstract</td>
</tr>
<tr>
<td>References</td>
</tr>
<tr>
<td>Publication Date</td>
</tr>
<tr>
<td>Journal</td>
</tr>
<tr>
<td>Volume/Issue</td>
</tr>
<tr>
<td>Etc.</td>
</tr>
<tr>
<td>Data:</td>
</tr>
<tr>
<td>Article Text</td>
</tr>
<tr>
<td>Figures</td>
</tr>
<tr>
<td>Tables</td>
</tr>
</tbody>
</table>

Related Mental Models

- Component Models
  - Meta-data
  - Data
  - Author
  - Abstract
  - Reference
  - Table/Figure
  - Access (who can view article)

- Models That Use This Model
  - Journal
  - Literature Review

Key Assumptions

- Articles are peer reviewed and published in scientific journals.

- Articles appear online at the same time they are published in the paper journal.

- An article’s meta-data is available in one database and its data is available in a separate database. (This is a technical constraint.)

- Paying for individual articles or valuable lists of articles is a reasonable business expense.
Key Terms

- **Article**: A scientific paper, published in a journal.
- **Meta-data**: Information about the article that is not the article itself. (NT: title, author, references, forward citations, abstract, publication date, journal title, journal volume, journal issue [note: not all shown here])
- **Data**: The content of the article itself. (NT: section)
- **Title**: A specific, descriptive name of an article. (BT: meta-data)
- **Author**: A person who contributed to the scientific findings described in an article. (BT: meta-data)
- **References**: Publication information for other articles referred to in the current article. (BT: meta-data)
- **Forward Citations**: References for articles that have used the current article as a reference. (BT: meta-data)
- **Endnote**: An in-text indication of a reference.
- **Abstract**: Short paragraph that summarizes an article’s findings. Abstracts are used to determine whether or not to read articles. (BT: meta-data)
- **Section**: Part of an article that must be formatted as a unit. Examples: Introduction, Conclusion. (BT: data)
- **Table**: Tabular display of data.
- **Figure**: An illustration, often a graphical display of data.
- **Access**: The set of user characteristics that determine whether specific users can view or save an article.

Script

This script shows the process of searching for and purchasing a specific article in an online system.

```
Start: Find online catalog

Go to meta-data or data?

Go to meta-data search page

Check and re-enter identifying information

Do results contain target?

no

yes

View abstract

Go to data search page

View search results

Purchase article?

no

Finish: Task complete

View & save article

Enter identifying information

Initiate search
```