

XML Models for Books

*It's all about whatcha got and
whatcha wanna do with it. . . .*

Bill Kasdorf

Vice President, Apex Content Solutions

General Editor, *The Columbia Guide to Digital Publishing*

**We all know
what book pages
look like . . .**

GENETIC COUNSELING AND TESTING

Implications for Clinical Practice

Karen A. Johnson, MS, and Jill D. Brensinger, MS



Genetic counseling is a communication process. It is intended to aid individuals and families in interpreting and dealing with information about a genetic disorder that has been diagnosed or is suspected within the family. There are many components to this genetic counseling process, which not only incorporates medical facts and education about a condition but also includes supportive counseling to help a patient deal with the sometimes unexpected finding that the disorder in the family may be inherited. Learning of this risk may, for some individuals, create psychological and emotional barriers that must be addressed.

GENETIC COUNSELORS

Genetic counselors are currently one of the primary groups of health care professionals who provide genetic counseling services to patients. They are specifically trained to take into account a patient's education and experiences, to communicate complicated medical concepts on an appropriate level, to consider the individual's social, religious, and cultural background when presenting testing and management choices, and to encourage patients to verbalize their feelings about the condition and the available options. Genetic counselors are also trained to provide anticipatory guidance, in which the counselor helps the patient consider several

From the Department of Internal Medicine, Division of Medical Genetics, University of Michigan, Ann Arbor, Michigan (KAJ); and the Department of Medicine, Division of Gastroenterology, The Johns Hopkins University School of Medicine, Baltimore, Maryland (JDB)

TWO

Four Hens and a Slogan

If we look up, we can concentrate on the future. If we look down, we can concentrate on money. But only by concentrating on money can we concentrate on the future.

Yu Zuomin, 1986

THE IRONIC FATE of the fourth hen, led by the former mad scientist from the pig lot, Zhang Yanjun, was that it became the most innovative and technologically advanced of the four. Official factories were set up to produce zinc-coated steel pipes, copper bar and wire, and angle steel. (See tables 1 and 2.)

QUESTION: What's the best way to kill someone in Daqiu without getting caught?

ANSWER: Bash in their head with a brick. No judge will ever believe that a person from Daqiu has enough money to own a brick. You are sure to be set free.

The Daqiu economic miracle of the 1980s was a textbook example of the growth of rural industry in reform China. The strategies used by the village were born of the changed political and economic circumstances of the era, which allowed places like Daqiu to organize and produce like never before. As Yu was fond of saying, "Anyone who visits

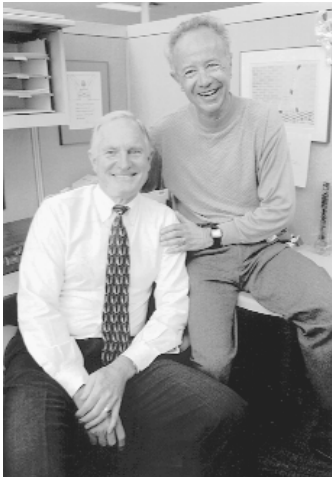
3

Cyberstars

Ballmer Is to Gates What Barrett Is to Grove



Gates Passes the Ball to Ballmer: Billionaire Bill (left) enjoys a “high bandwidth” relationship with fellow billionaire, co-leader Steve. (Gamma Liaison)



Cyberstars: Intel chairman Andy Grove is right behind heir apparent Craig Barrett. (AP Wide World Photo)



VLADIMIR NABOKOV

1899–1977

“Literature was not born the day when a boy crying ‘wolf, wolf’ came running out of the Neanderthal valley with a big gray wolf at his heels; literature was born on the day when a boy came crying ‘wolf, wolf’ and there was no wolf behind him.”

“Style and structure are the essence of a book; great ideas are hogwash.”

V. S. NAIPAUL

1932–

“I am the kind of writer that people think other people are reading.”

NAPOLEON I

1769–1821

“[As a young man] I lived alone like a hermit, in a little room with my books—then my only friends. What strict economy it required even in the necessities of life before I could allow myself the pleasure of purchasing them! When I had managed to save up two crowns by dint of stern self-denial, I wended my way to the bookseller’s as pleased as a child, and I examined his shelves long and anxiously before my purse would allow me to gratify my desires.”

“God, how stupid literary men are!”

“Since the discovery of printing, knowledge has been called to power, and power has been used to make knowledge a slave.”

safely be said that these works accomplished more in the way of popularizing the interest in lepidoptera among young Americans than any other contemporary publications.

In the field of paleontology Holland actively sponsored explorations of fossiliferous regions of the West in the interests of the Carnegie Museum. He aided in the discovery of several giant dinosaurs, including the *Diplodocus carnegiei* and the *Apatosaurus loltisizæ*, the latter of which he named in honor of the wife of the founder of the museum. An interesting paper which developed from his study of the dinosaur was "The Osteology of the *Diplodocus Marsh*" (*Memoirs of the Carnegie Museum*, vol. II, no. 6, 1906). In fulfilment of a wish expressed by Grnegie, Holland was instrumental in supplying several leading museums of the Old and New Worlds with replicas of the *Diplodocus*. He is also credited with having issued the call for the meeting that led to the formation of the American Association of Museums, and he served as president of the organization from 1907 to 1909. In his leisure hours, during his busy life, he found recreation in painting. He made his own illustrations for his books and papers and occasionally wrote articles on art subjects.

Holland was married, on Jan. 23, 1879, to Carrie T. Moorhead, by whom he had two sons, Moorhead Benezet and Francis Raymond. He died in Pittsburgh, following a stroke, in his eighty-fifth year. After his death his extensive entomological collections, together with his library, were acquired by the Carnegie Institute in compliance with the conditions of the will stipulating the setting aside of a certain fund for the development of the entomological section.

[Henry Leighton, memoir, with bibliog., in *Bull. Geological Soc. of America*, vol. XLIV (1933); *Amherst Coll.: Biog. Record . . . 1821-1921* (1939), ed. by R. S. Fletcher and M. O. Young; *Science*, Feb. 24, 1933; the *Moravian*, June 6, 1894, containing sketch of the elder Francis Raymond Holland by W. J. Holland; G. T. Fleming, ed., *Hist. of Pittsburgh and Environs* (1922), vol. III; Agnes L. Starrett, *Through One Hundred and Fifty Years: The Univ. of Pittsburgh* (1937); *Ann. Reports of . . . the Carnegie Inst. . . . 1931-32* (1933); *Museum News*, Jan. 1, 1933; *Carnegie Mag.*, Jan. 1933; *Pittsburgh Post-Gazette*, Dec. 14, 15, 1932.]

A. Avinoff

HOLLERITH, HERMAN (Feb. 29, 1860–Nov. 17, 1929), inventor of tabulating machines, was born in Buffalo, N. Y., the son of George and Franciska (Brunn) Hollerith. After preliminary schooling he attended the School of Mines of Columbia University and

was graduated in 1879. Immediately thereafter he became an assistant to his teacher, William Petit Trowhridge [*q.v.*], in the Census of 1880. He worked on the statistics of manufacturers and prepared an article, "Report on the Statistics of Steam- and Water-Power Used in the Manufacture of Iron and Steel," for the *Report on Power and Machinery Employed in Manufactures* (Census Office, Department of the Interior, 1888). His work on the census brought him into contact with Dr. John Shaw Billings [*q.v.*], from whom came the suggestion of Hollerith's main invention. In a letter to a friend written nearly forty years later he described the origin of the idea: "One evening at Dr. B's tea table he said to me, 'There ought to be a machine for doing the purely mechanical work of tabulating population and similar statistics.'" Hollerith thought the problem could be solved and later offered Billings a share in the project.

In 1882 he went to the Massachusetts Institute of Technology, as instructor in mechanical engineering. He disliked teaching, however, and after a year moved to St. Louis, Mo., where he experimented on electro-magnetically operated air-brakes and other types of brakes for railroads. From 1884 to 1890 he was attached to the Patent Office in Washington, D. C. During these years he worked on the problem of perfecting mechanical aids in tabulating statistical information. By the time the Census of 1890 was to be taken he had invented machines that would record statistical items, by a system of punched holes in a non-conducting material, and would also count those items by means of an electric current passed through the holes identically placed. The system was given trial in tabulating mortality statistics in Baltimore, and in compiling similar data in New Jersey and New York City. In competition with two alternative methods of tabulation, it was chosen for use in compiling the Census of 1890. It did a sample piece of work in less than half the time required by the other systems, and the commission estimated that in dealing with the returns expected at the approaching census the new machine would reduce the labor days by more than two-thirds. Subsequently the machines were improved by the addition of a mechanical feeding device. In 1890 the Franklin Institute of Philadelphia, reporting that Hollerith had made the outstanding invention of the year, gave him its highest award, the Elliott Cresson medal.

The Hollerith machines were used in 1891 in recording the census returns in Canada,

was no effort to recognize the passing of one of the great minds of the early 20th century. In fact, only 12 people attended Hilbert's funeral. ♦

Hollerith, Herman

FEBRUARY 29, 1860–NOVEMBER 17, 1929 ● INVENTOR

Herman, Hollerith, inventor of tabulating machines, was born in Buffalo, N. Y., the son of George and Francisca (Brunn) Hollerith. After preliminary schooling he attended the School of Mines of Columbia University and was graduated in 1879. Immediately thereafter he became an assistant to his teacher, William Petit Trowhridge [*q.v.*], in the Census of 1880. He worked on the statistics of manufacturers and prepared an article, "Report on the Statistics of Steam- and Water-Power Used in the Manufacture of Iron and Steel," for the *Report on Power and Machinery Employed in Manufactures* (Census Office, Department of the Interior, 1888). His work on the census brought him into contact with Dr. John Shaw Billings [*q.v.*], from whom came the suggestion of Hollerith's main invention. In a letter to a friend written nearly forty years later he described the origin of the idea: "One evening at Dr. B's tea table he said to me, 'There ought to be a machine for doing the purely mechanical work of tabulating population and similar statistics.'" Hollerith thought the problem could be solved and later offered Billings a share in the project.

In 1882 he went to the Massachusetts Institute of Technology, as instructor in mechanical engineering. He disliked teaching, however, and after a year moved to St. Louis, Mo., where he experimented on electro-magnetically operated air-brakes and other types of brakes for railroads. From 1884 to 1890 he was attached to the Patent Office in Washington, D. C. During these

Herman Hollerith





Back



Forward



Reload



Home



Search



Netscape



Images



Print



Security



Sto

Location:  

What's Related

Dictionary of American Biography

MAIN
MENURESEARCH
REMINDERSARTICLES
A-Z

Dictionary of American Biography, Volume 11
© 1997 by American Council of Learned Societies

Contributor: Willcox, Walter F.

Hollerith, Herman, (Feb. 29, 1860 - Nov. 17, 1929), inventor of tabulating machines, was born in Buffalo, N. Y., the son of George and Franciska (Brunn) Hollerith. After preliminary schooling he attended the School of Mines of Columbia University and was graduated in 1879. Immediately thereafter he became an assistant to his teacher, [William Petit Trowbridge](#) [*q. s.*], in the Census of 1880. He worked on the statistics of manufacturers and prepared an article, "Report on the Statistics of Steam- and Water-Power Used in the Manufacture of Iron and Steel," for the *Report on Power and Machinery Employed in Manufactures* (Census Office, Department of the Interior, 1888). His work on the census brought him into contact with Dr. [John Shaw Billings](#) [*q. s.*], from whom came the suggestion of Hollerith's main invention. In a letter to a friend written nearly forty years later he described the origin of the idea: "One evening at Dr. B's tea table he said to me, 'There ought to be a machine for doing the purely mechanical work of tabulating population and similar statistics.' " Hollerith thought the problem could be solved and later offered Billings a share in the project.

In 1882 he went to the Massachusetts Institute of Technology, as instructor in mechanical engineering. He disliked teaching, however, and after a year moved to St. Louis, Mo., where he experimented on electromagnetically operated air-brakes and other types of brakes for railroads. From 1884 to 1890 he was attached to the Patent Office in Washington, D. C. During these years he worked on the problem of perfecting mechanical aids in tabulating statistical information. By the time the Census of 1890 was to be taken he had invented machines that would record statistical items, by a system of punched holes in a non-conducting material, and would also count those items by means of an electric current passed through the holes identically placed. The system was given trial in tabulating mortality statistics in Baltimore, and in compiling similar data in New Jersey and New York City. In competition with two alternative methods of tabulation, it was chosen for use in compiling the Census of 1890. It did a sample piece of work in less than half the time required by the other systems, and the commission estimated that in dealing with the returns expected at the approaching census the new machine would reduce the labor days by more than two-thirds. Subsequently the machines were improved by the addition of a mechanical feeding device. In 1890 the Franklin Institute of Philadelphia, reporting that Hollerith had made the outstanding invention of the year, gave him its highest award, the [Elliott Cresson](#) medal.

The Hollerith machines were used in 1891 in recording the census returns in Canada, Norway, and Austria. Although they revolutionized statistical technique, American scholars gave little attention to them at the outset, probably because statistical interpretation had not been carried as far in the United States as elsewhere. But in Europe technical articles about their value appeared in England, France, Germany, Austria, and Italy. Hollerith attended the Berne session of the International Statistical Institute in 1895 and commented upon a paper by an Austrian member. Between 1890 and 1900 the machines were successfully adapted to handle types of mass enquiries in which addition was an element, and thus they could be used in tabulating railroad freight statistics and the data assembled in

CONTEMPORARY ISSUE

U.S. SOCIETY
AND DRUG USE

Currently political and social forces are contributing to the increased demand for drug treatment, just as these same forces pushed the growth of treatment of heroin abuse. This recent trend reaffirms the importance of social and political factors in how U.S. society deals with alcohol and other drugs use.

In 1986 the surge in demand for drug treatment, particularly in the residential or inpatient setting, arose from two major sources: crack and AIDS. These worked in a political climate that was strongly in favor of eradicating drugs and drug abuse.

As you saw in Chapter 6, crack is the highly addictive, cheaper form of cocaine. People start using it and are quickly hooked on it, and in the mid-1980s people who start using it are quickly hooked on it, again the media addicts looking for needles. These worked in a political climate that was strongly in favor of eradicating drugs and drug abuse. These worked in a political climate that was strongly in favor of eradicating drugs and drug abuse. Again, the media attention to AIDS and the general public alarm and fears about AIDS sent addicts looking for



treatment when it is unlikely they otherwise would have done so.

- The right of the federal government and other public and private employers to conduct urine screens.
- Some proposed legal penalties related to selling or using drugs—requirement of life sentences to drug dealers who are convicted twice of selling drugs to teenagers.
- The uproar resulting from the revelation that David Ginsberg, a 1987 Supreme Court nominee, smoked marijuana.

Currently political and social forces are contributing to the increased demand for drug treatment, just as these same forces pushed the growth of treatment of heroin abuse. This recent trend reaffirms the importance of social and political factors in how U.S. society deals with alcohol and other drugs use. Currently political and social forces are contributing to the increased demand. Political and social forces are contributing to the increased demand for drug treatment, just as these same forces pushed the growth of treatment of heroin abuse. This recent trend reaffirms the importance of social and political factors in how U.S. society deals with alcohol and other drugs use.

many puncture holes on their backsides that it was difficult to find a fresh spot to give them a new shot. (Hecht, 1985, p. 270).

It was not unusual in 1968 to see athletes with their own medical kits, practically a doctor's bag in which they would have syringes and all their various drugs.

Side effects of anabolic steroids Then in 1977, two independent laboratories reported the discovery of binding sites for benzodiazepines and it was subsequently shown that although specific to benzodiazepines, these receptors are part of what is now called the GABA-benzodiazepine receptor.

1. By origin—An example within this system is drugs that come from plants, such as the opiates, which are derived from the opium poppy. The “pure” (nonsynthetic) opiates include compounds such as morphine.
2. By action, according to similarity of drug effects for example, marijuana and atrophine both increase heart rate.
3. By therapeutic use, or according to similarity in how a drug is used to treat or modify something in the body.

“I could have easily gotten stoned [before coming to this interview]; it wouldn't have bothered me. It depends on the situation. I wouldn't like to smoke in the middle of the day if I have things to do. Or I wouldn't smoke in the middle of a class. Things like that”

**DRILL SERGEANT, DESCRIBING
SMOKING TO NEW RECRUITS**
(Cited in Krogh, 1991, p. 74)

TABLE 16-2 Summary of five major categories of models of the causes of substance-use disorders, and their implications for treatment

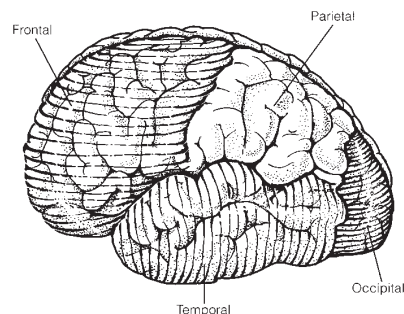
Model	Cause(s)	Treatment
Moral	The making of personal choices to use alcohol and drugs in a harmful way, when other choices could have been made.	Punish legally or intervene spiritually.
American Disease	Substance-use disorders are progressive, irreversible diseases that are the products of a mix of physical and spiritual causes.	Identify those with the disease, confront them to abstain from drugs and alcohol.
Biological	Genetic or physiological processes.	Advise people at risk for problems of their risk status. Counsel those at risk to avoid alcohol and drugs entirely.

Another exciting discovery has been the development of new drugs that are antagonistic at the benzodiazepine receptor. Depression is one of the most common psychiatric disorders in the United States. Depression often is classified as one of two major types—endogenous and exogenous. Lithium is the major drug used in treating the mood disorders of mania and manic depressive illness. Lithium is the only psychiatric drug that is an effective prophylaxis against disease recurrence.¹

It is difficult to provide a complete definition of anxiety, given the wide array of phenomena it encompasses. Then in 1977, two independent laboratories reported the discovery of binding sites for benzodiazepines and it was subsequently shown that although specific to benzodiazepines, these receptors are part of what is now called the GABA-benzodiazepine receptor. The “pure” (nonsynthetic) opiates include compounds such as morphine. By action, according to similarity of drug effects for example, marijuana and atropine both increase heart rate.

relapse

A term from physical disease, relapse means return to a previous state of illness from one of health. As applied to smoking, it means the smoker resumes smoking after having abstained for some amount of time.

FIGURE 16-5 Selection of human brain showing inside of left hemisphere

¹In addition, cross-tolerance occurs between drugs. They also potentiate one another. In fact benzodiazepines are commonly used to withdraw alcoholics from alcohol. Thus, substantial evidence indicates a common mechanism of action for depressant drugs (Breese, Frye, Vogel, 1983).

3. Press **Page down** to move forward one slide. Of course if you are already on the last slide, this action has no effect.
4. Press **Page up** to move back one slide.
5. Press **Enter** to add a new line. Your cursor moves to another line or bullet point, depending on the slide's layout.
6. Press **Tab** or use the **Demote** button. This demotes the bullet and the text that you type will be indented.
7. Press **Shift+Tab** or use the **Promote** button. This promotes the line one level higher than the preceding line.

Result: You have just added text to your slide in the slide pane. Both the text and any formatting that is present are visible. To correct any mistakes, press the **Backspace** or **Delete** keys. Chapter 3, “Edit Text,” provides more sophisticated ways to edit your text.



TIPS FROM A PRO: As you add text to your slides, try to use parallel construction. For example, use a series of verb phrases or a list of nouns. Just don't mix them together. Look at the examples shown in Figure 2.4.

ADD TEXT IN NOTES PANE



CORE OBJECTIVE: Add speaker notes

How: Click in the notes pane to type comments. Notice that as you type previous lines of text are not visible. If you want to see a larger section of your notes, just resize the pane.

Result: You now have notes at the bottom of your slide to help you remember when you want to give the audience handouts, when to add that relevant anecdote, or when to ask a question of the audience (Figure 2.5). Your listeners cannot see them; they are only to help you. You learn how to print your notes in Chapter 8, “Print and Deliver.”

Keep Grammar Parallel	
Not Parallel	Parallel
Goals for 2001	Goals for 2001
<ul style="list-style-type: none"> • Increase R&D sending by 50% • Compensation program redesign • Decrease waste by 25% • Unprofitable unit divestiture 	<ul style="list-style-type: none"> • Increase R&D sending by 50% • Redesign compensation program • Decrease waste by 25% • Divest unprofitable unit

Figure 2.4 Parallel grammar

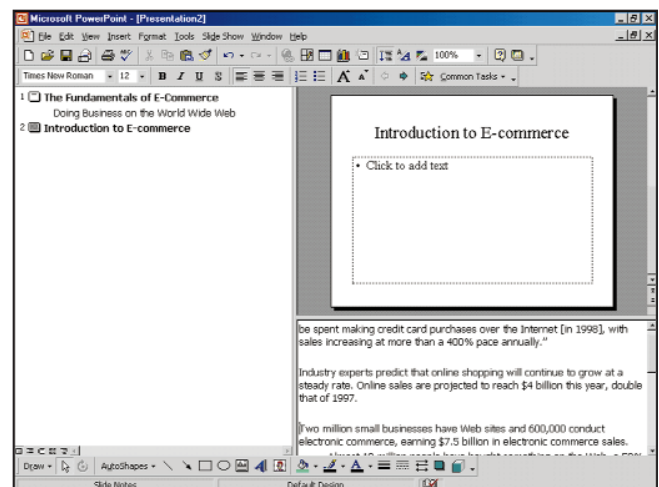


Figure 2.5 Normal view with notes in the notes pane



67%

TIPS FROM A PRO: If you want to make the text in any of the panes appear larger, use the Zoom button on the Standard toolbar. Click in the pane that you want to enlarge, click the drop-down arrow next to the button, and select the desired percentage.

TASK 3

Add Speaker Notes

C

CORE OBJECTIVE: Add speaker notes

What: In Task 2 you learned how to enter notes in the notes pane, but PowerPoint offers two additional methods for entering speaker notes.

Why: More options means greater flexibility. You aren't limited to one view to enter notes—add them in every view!

ENTER NOTES IN SLIDE SORTER VIEW

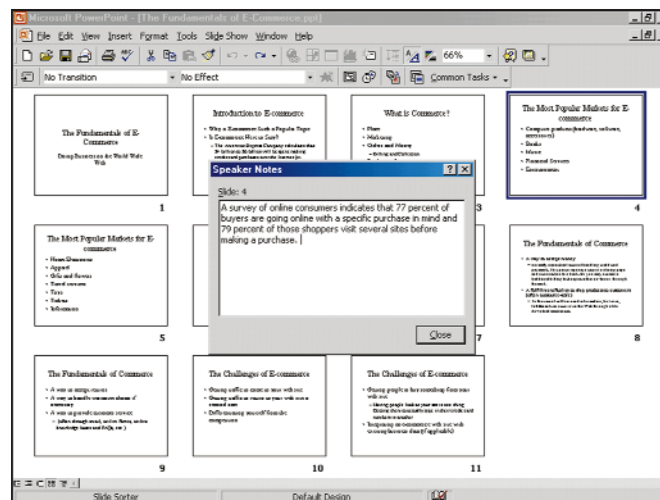
How: Here you don't need to page from slide to slide; you can enter notes for all your slides in one convenient location.



1. Use the mouse to select the slide.
2. Click the Speaker Notes button.
3. Enter your notes in the Speaker Notes dialog box, as shown in Figure 2.6.
4. Repeat steps 1-3 to type notes for additional slides.

Result: The notes appear in the space at the bottom of the slide just as those you entered in the notes pane but you can't see them unless you go to one of the other PowerPoint views.

Figure 2.6
Entering speaker notes in Slide Sorter view



**There's a reason why
DTDs and schemas
are called "models."**

Some common book “models”



- Scholarly monograph
- Textbook
- Reference book (but encyclopedia ≠ dictionary)
- Directory
- Catalog
- Technical manual (but programming manual ≠ auto repair manual ≠ Boeing 737 documentation)
- Trade book (but cookbook ≠ coffeetable book)

Some common book “models”



- Scholarly monograph
- Textbook
- Reference book (but encyclopedia)
- Directory
- Catalog
- Technical manual (but program manual, auto repair manual ≠ B2 bomber manual)
- Trade book (but cookbook ≠

These models have different:

- Structures
- Semantics
- Purposes
- Audiences
- Type/design conventions

1

Chapter Title

Chapter Author
Author Identification

Let's look at how a really simple book would be marked up in some common models.

Here's some text at the beginning of this chapter.
Let's make one more line's worth.

Level One Subhead

Here's some more text. This author's a pretty nice girl, but she doesn't have a lot to say.

Level Two Subhead

The end.

Here's how the author's MS might look.

1

Chapter Title

Chapter Author
Author Identification

Here's some text at the beginning of this chapter. Let's make one more line's worth.

Level One Subhead

Here's some more text. This author's *a pretty nice girl*, but she doesn't have a lot to say.

Level Two Subhead

The end.

**DTDs can be
strict . . .**



ISO 12083

*The Mother Superior
of DTDs . . .*

The **ISO 12083** DTD



- Brilliant, idealistic, based on theory
- Very strict and hierarchical
- Creation of one individual, Eric van Herwijnen
- Created before the Web, before XML

Most big STM journal DTDs are still 12083-based

or permissive . . .

TEI

*The “Let One Thousand
Flowers Bloom” DTD . . .*



TEI: The Text Encoding Initiative



- Rich, expansive, accommodating
- Collaborative creation: TEI Consortium
- Created for scholarship, not publication
- Own table model (can invoke CALS or XHTML)
- Can invoke TeX or MathML for math
- Enormous resource; TEI Lite is too simplistic

Most humanities scholarship is TEI-based

```
<?xml version="1.0" encoding="us-ascii"?>
<!DOCTYPE TEI SYSTEM "tei_all.dtd">
<!-- TEI p5\tei-p5-exemplars-0.7\xml\dtd\tei_all.dtd 2007-05-26 Release -->
<TEI>
```

```
<teiHeader type="text">
```

Our text as TEI . . .

```
<fileDesc>
  <titleStmt>
    <title type="main">Chapter Title</title>
    <author>Chapter Author</author>
  </titleStmt>
  <editionStmt>
    <edition>
      <date value="2007">2007</date>
    </edition>
  </editionStmt>
  <publicationStmt>
    <distributor>
      <address>
        <addrLine>
          <name key="Pub" type="organisation">Publisher</name>
        </addrLine>
        <addrLine>Address</addrLine>
        <addrLine>
          <name type="place">Place</name>
        </addrLine>
        <addrLine>Email</addrLine>
      </address>
    </distributor>
    <idno type="demo">DEMO_Ch1</idno>
    <availability status="free">
      <p>Public domain</p>
    </availability>
```

**The header
goes on for
two pages...**

**...preserving
all sorts of useful
information.**

```
<publisher>Publisher</publisher>
<pubPlace>Place</pubPlace>
<date value="2007-06-09">2007-06-09</date>
</publicationStmt>
<notesStmt>
  <note>Prototype TEI header</note>
</notesStmt>
<sourceDesc>
  <p>Chapter in search of a book.</p>
  <p>
    <bibl>Example TEI Chapter 1. Chapter Author.</bibl>
  </p>
</sourceDesc>
</fileDesc>
<encodingDesc>
  <editorialDecl>
    <p>Minimal TEI encoding. Chapter in search of a book.</p>
  </editorialDecl>
  <refsDecl>
    <p>No refs; no IDs assigned.</p>
  </refsDecl>
</encodingDesc>
<profileDesc>
  <langUsage>
    <language ident="en" usage="100">English.</language>
  </langUsage>
</profileDesc>
<revisionDesc>
  <change>
    <list>
      <item><date value="2007-06-09">June 9, 2007</date> Created initial
version.</item>
    </list>
  </change>
</revisionDesc>
```

```
</change>
</revisionDesc>
</teiHeader>
```

```
<text>
```

```
<body>
```

```
<div type="Chapter" n="1">
```

```
<head>Chapter Title</head>
```

```
<opener>
```

```
<byline><docAuthor>Chapter Author</docAuthor>
```

```
<name type="affiliation" rend="italics">Author Identification</name>
```

```
</byline>
```

```
</opener>
```

Note separation of semantics & formatting

Rich naming model

```
<p>Here&#x2019;s some text at the beginning of this chapter. Let&#x2019;s make one more line&#x2019;s worth.</p>
```

```
<div type="level-1">
```

```
<head>Level One Subhead</head>
```

```
<p>Here&#x2019;s some more text. This author&#x2019;s
```

```
<hi rend="italics">a pretty nice girl</hi>, but she doesn&#x2019;t have a lot to say.
```

```
</p>
```

```
<div type="level-2">
```

```
<head>Level Two Subhead</head>
```

```
<p>The end.</p>
```

```
</div> <!-- end of level-2 div -->
```

```
</div> <!-- end of level-1 div -->
```

```
</div> <!-- end of chapter div -->
```

```
</body>
```

```
</text>
```

```
</TEI>
```

Note recursive nested structure

```
<?xml version="1.0"?>
<!DOCTYPE TEI.2 SYSTEM "../tei2.dtd">
<?xml-stylesheet type="text/xsl" href="..\html.xsl"?>
<!-- Whitespace Rules-->
<!-- <header> blocks preserve whitespace so do not tab or insert newlines in those sections, in the body whitespace is predefined so use paragraphs to create new sections of text-->
<TEI.2>
```

```
<teiHeader>
```

```
<fileDesc>
```

```
<titleStmt>
```

```
<title>
```

```
<name type="person" key="bioCL028">
```

```
Samuel L. Clemens
```

```
</name> to
```

```
<name type="person" key="bioCO034">
```

```
Moncure D. Conway</name>
```

```
<date value="1876.05.05">5 May 1876
```

```
</date>
```

```
: a machine-readable transcription.
```

```
</title>
```

```
<author>Samuel L. Clemens</author>
```

```
<respStmt>
```

```
<resp>Transcribed by</resp>
```

```
<name type="person">Harriet Elinor Smith</name>
```

```
<resp>Encoded by</resp>
```

```
<name type="person">Michael R. Ferguson</name>
```

```
</respStmt>
```

```
<funder>National Endowment for the Humanities</funder>
```

```
</titleStmt>
```

```
<publicationStmt>
```

```
<publisher>
```

```
The Mark Twain Project, The Bancroft Library, University of California, Berkeley.
```

```
</publisher>
```

```
<date value="2003">2003.</date>
```

```
</publicationStmt>
```

```
<sourceDesc>
```

```
<bibl>
```

```
<idno>
```

```
MS consulted: NNC, UCCL call number
```

```
01332</idno>
```

```
</bibl>
```

```
</sourceDesc>
```

```
</fileDesc>
```

```
<encodingDesc><editorialDecl><p></p></editorialDecl><variantEncoding method="double-end-point" location="internal"/>
```

```
</encodingDesc>
```

```
<profileDesc>
```

```
<handList>
```

```
<hand scribe="bioCL028" id="bioCL028" ink="ink(brown?)" first="YES"/>
```

```
</handList>
```

```
</profileDesc>
```

```
</teiHeader>
```

```
<text><body><head type="metadata" rend="head">To <seg type="addressee"><name type="person" key="bioCO034">Moncure D. Conway</name></seg>
```

```
<date value="1876.05.05">5 May 1876</date>
```

```
<name type="place">Hartford, Conn.</name> <source>(MS: <rs type="source">NNC</rs>, #01332)</source></head>
```

```
<div1 type="mainletter"><pb n="1"/>
```

```
<opener>
```

```
<dateline rend="indentdateline"><name type="place">Hartford</name>, <date value="1876.05.05">May 5</date>.</dateline>
```

```
<salute rend="left">My Dear <name type="person" key="bioCO034">Conway</name>.</salute>
```

```
</opener>
```

```
<p rend="indent2"><name type="person" key="bioUN000">Bliss</name> says he will <anchor id="app01332-01"/>rush<app from="app01332-01"><lem resp="MTP">rush</lem><rdg><del>rus</del> rush</rdg></app> the pictures the tightest he can, & believes he can have them ready for shipment by <date value="1876.05.14">May 14</date>. Better call it <date value="1876.05.30">May 30</date> & even <hi rend="undscrforital">then</hi> it will be the nearest he ever came to being on time with his word.</p>
```

```
<p rend="indent2">I've been playing Peter Spyk in <add></add><del>t</del><add>T</add>he Loan of a Lover (I re-wrote the part, stupefying it a little more & making it unconsciously sarcastic in spots,) & we made a considerable success of it. Been invited to perform in New York, but declined, of course.</p><p rend="indent2">Read <name type="person" key="bioUN000">Smalley</name>'s letter yesterday, & envied you your seat at the "Queen Mary" <pb n="2"/>ing. It must have been a great occasion.</p><p rend="indent2"><name type="person" key="bioCL026">Susie</name> escaped death by a hair last week. Diphtheria, of the worst form. She is well, now. Do not remember whether I sent you the new picture of the children, so I will enclose one. If you already have one, give this one to <name type="person" key="bioSM026">Mrs. Smalley</name>, if she will take it. My own portrait came near appearing, in the right hand corner. I was behind a curtain, <del>hi</del> holding the children's heads.</p><p rend="indent2"><name type="person" key="bioF1006">James T. Fields</name> will be here in a moment, he lectures to-night, so I will prepare to receive him.</p><p rend="indent2">Goodbye, regards to you both.</p><closer rend="indentcompclose">Ys Truly
```

```
<signed rend="indentsig"><hi rend="paraph">
```

```
<name type="person" key="bioCL028">
```

```
S. L. Clemens</name></hi>
```

```
</signed>
```

```
</closer>
```

```
</div1>
```

```
</body>
```

```
</text>
```

```
</TEI.2>
```

or utilitarian . . .



DocBook

The “Crank It Out” DTD ...

DocBook



- Common general-purpose book model
- Widely used for technical documents, manuals
- Not often used for scholarly/trade/ref/textbooks
- CALS tables (can invoke XHTML)
- Own math model (can invoke MathML)
- Vendors and tech writers familiar with DocBook

DocBook is often used in structured environments

```
<?xml version="1.0" encoding="us-ascii"?>
<!DOCTYPE chapter PUBLIC "-//OASIS//DTD DocBook XML V4.3//EN"
"http://www.oasis-open.org/docbook/xml/4.3/docbookx.dtd">
```

Our text as DocBook

```
<chapter label="1">
```

```
<chapterinfo>
```

```
<authorgroup>
```

```
<author>
```

```
<firstname>Chapter</firstname>
```

```
<surname>Author</surname>
```

```
<affiliation>
```

```
<shortaffil remap="ITAL">Author Identification</shortaffil>
```

```
<jobtitle></jobtitle><orgname></orgname>
```

```
</affiliation>
```

```
</author>
```

```
</authorgroup>
```

```
</chapterinfo>
```

Author's name & affil. generated from metadata

```
<title>Chapter Title</title>
```

```
<para>Here's some text at the beginning of this chapter. Let's make one more line's worth.</para>
```

Context-sensitive formatting

```
<sect1>
```

```
<title>Level One Subhead</title>
```

```
<para>Here's some more text. This author's
```

```
<emphasis remap="ITAL" role="italics">a pretty nice girl</emphasis>, but she doesn't have a lot to say.</para>
```

Preserving a record of previous markup

```
<sect2>
```

```
<title>Level Two Subhead</title>
```

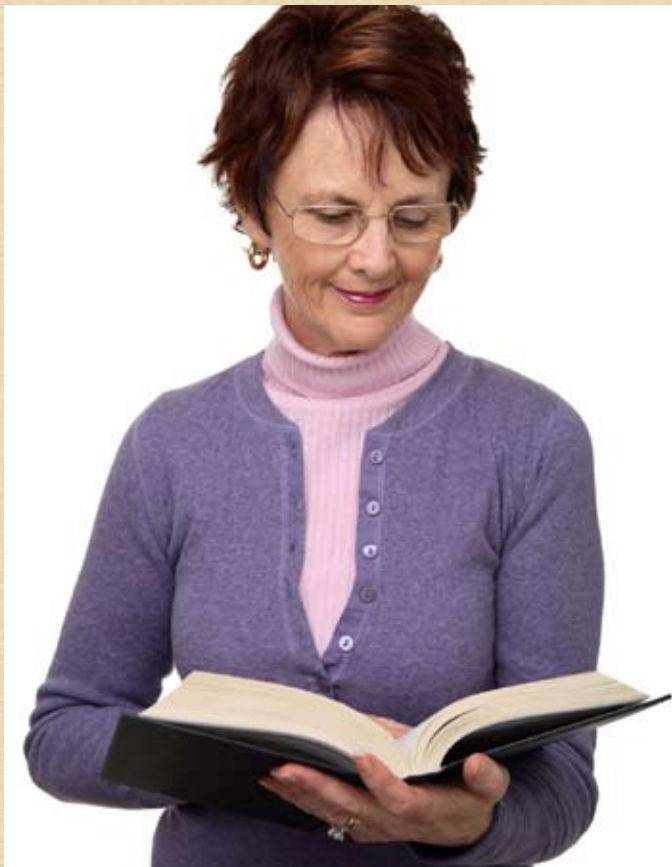
```
<para>The end.</para>
```

```
</sect2>
```

```
</sect1>
```

```
</chapter>
```

**or strike a
useful balance . . .**



NLM

The “Works and Plays Well Together” DTD . . .

The **NLM Book DTD**



- Originally created for NCBI Bookshelf
- Not based on broad study of books, as the journal models were on journals
- Has been improved, and still a work in process
- Robust metadata/semantics
- XHTML or CALS tables, MathML for math
- Appealing when mixed with NLM journal XML

Our text as NLM Book XML

```
<?xml version="1.0" encoding="us-ascii"?>
<!DOCTYPE book-part PUBLIC "-//NLM//DTD Book DTD v2.3 20070202//EN"
"book.dtd">
```

```
<book-part id="bid_001" book-part-type="chapter" book-part-number="1">
  <book-part-meta>
    <title-group>
      <title>Chapter Title</title>
    </title-group>
    <contrib-group>
      <contrib contrib-type="author">
        <name><surname>Author</surname>
          <given-names>Chapter</given-names></name>
        <aff>Author Identification</aff>
      </contrib>
    </contrib-group>
    <history>
      <date date-type="created">
        <day>9</day>
        <month>6</month>
        <year>2007</year>
      </date>
      <date date-type="updated">
        <day>9</day>
        <month>6</month>
        <year>2007</year>
      </date>
    </history>
    <abstract></abstract>
  </book-part-meta>
```

**CN, CT, AU, &
AFF are ONLY in
the metadata**

**... but look how
rich the metadata
model is!**

**Note that
<sec>s are recursive
("nested")**

```
<body>
  <p>Here's some text at the beginning of this chapter. Let's
make one more line's worth.</p>
  <sec id="bid_002">
    <title>Level One Subhead</title>
    <p>Here's some more text. This author's a pretty
nice girl, but she doesn't have a lot to say.</p>
    <sec id="bid_003">
      <title>Level Two Subhead</title>
      <p>The end.</p>
    </sec>
  </sec>
</body>
</book-part>
```

**<sec>s and <title>s
are context-dependent,
not numbered**

**or serve a particular
purpose . . .**



DTBook

*The most important DTD
people have never
heard of . . .*

The **DTBook DTD**



- Part of DAISY/NISO “Digital Talking Book” standard
- Now part of IDPF’s new .epub format for e-books
- First priority: structure—Enables access, navigation, subsetting; accommodates flat or nested structures
- The degree of markup is not mandated; markup needed for print is DAISY’s recommended minimum
- XHTML tables, images and alt attribute for math

The **DTBook DTD**



NIMAS: US National File Format for Education

- Implementation of DTBook for US education
- **Baseline Element Set** (min. requirement, nested): publishers must supply this XML (+ PDF for visual reference, + package file)
- **Optional Element Set** (rest of DTBook set)
- “Guidelines for Use” follow DAISY, but stricter

```

<?xml version="1.0" encoding="us-ascii" ?>
<!DOCTYPE dtbook (View Source for full doctype...)>
<dtbook xmlns="http://www.daisy.org/z3986/2005/dtbook/" version="2005-3"
xml:lang="en-US">
  <!-- The NIMAS Technical Specifications document is available for download at
http://nimas.cast.org/about/proposal/spec-v1_1.html. -->
  <head>
    <!-- <meta/> (e.g., for Dublin Core) or <link/> elements only -->
  </head>
  <book>
    <bodymatter>
      <level1 id="L001" class="chapter">
        <h1 id="L001-H01" class="chapter">Chapter Title</h1>
        <docauthor>
          <span class="ChapterAuthor">Chapter Author</span>
          <span class="AuthorAffiliation">Author Identification</span>
        </docauthor>
        <level2 id="L001-001" class="mainsection">
          <p>Here's some text at the beginning of this chapter. Let's
make one more line's worth.</p>
        </level2>
        <level2 id="L001-002" class="mainsection">
          <h2 id="L001-002-H01" class="mainsection">Level One Subhead</h2>
          <p>Here's some more text. This author's
          <em>a pretty nice girl</em> but she doesn't have a lot to say.</p>
          <level3 id="L001-001-001" class="mainsection">
            <h3 id="L001-001-001-H01" class="mainsection">Level Two Subhead</h3>
            <p>The end.</p>
          </level3></level2></level1>
        </bodymatter>
      </book>
    </dtbook>

```

Our text as NIMAS-compliant DTBook

NIMAS wants explicit structure

DTBook allows both flat and nested (numbered or recursive) structures

The new **.epub** standard from IDPF



- Successor to OEB (Open eBook) standard
- **OPS 2.0** (Open Publication Structure):
Text markup standard (XHTML + DTBook)
- **OPF 2.0** (Open Packaging Format):
How the components of a digital book are related
- **OCF 1.0** (Open Container Format):
How to encapsulate an .epub w/ optional files

**or, for something
completely different . . .**



DITA

The “Slice & Dice” DTD . . .

DITA



- DITA = Darwin Information Typing Architecture
- Designed for modular information
- Content is created in “topics,” not documents
- Topics are assembled & reassembled by “maps”
- Becoming the new standard for tech docs

*DITA is ideal for granular, modular information—
updating a topic updates all docs it's used in*

**. . . not to mention
(okay, I will) models
used in books . . .**

Models used as **components** in other models



- **MathML** for math equations
- **CALS/Oasis** table model
- **SVG**—Scalable Vector Graphics
- **XHTML** (modular XHTML2 is being developed)
- **Dublin Core** (basic bibliographic metadata)
- **ONIX** (for marketing/distribution & other info)
- **OAI-PMH**—Open Archives Initiative Protocol for Metadata Harvesting (no, not just for free content!)

*It's very nice
not to have to reinvent
these wheels!*

XML Models for Books

[Optimist says:]

What a wealth of options!

XML Models for Books

[Optimist says:]

What a wealth of options!

[Pessimist says:]

Clear as mud!

XML Models for Books

**It's not XML's fault
this is complicated.**

Books are messy.

Thanks!



Bill Kasdorf

Vice President, Apex Content Solutions

bkasdorf@apexcovantage.com

+1 734 904 6252