EPUB: The "Holy Grail" of Techcomm?

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Scott Prentice, Leximation, Inc.

Introduction

- Scott Prentice, President of Leximation, Inc.

- Specializing in FrameMaker plugin development as well as structured FrameMaker conversions, consulting, and development. FrameMaker user/developer since 1991.

- Developed DITA-FMx, a FrameMaker plugin for efficient DITA authoring and publishing.

- Consulting for custom Help systems, creative/functional web applications, and EPUB solutions.

What is EPUB?

- EPUB is an ebook file format that can be read on almost every device and platform

- Requires a "reader" application or dedicated reader device

- A collection of XHTML, XML, CSS, and media files wrapped up in a "zip" archive

- Defines the content, navigation, and formatting of the ebook

Brief history of EPUB

- EPUB specification is maintained by IDPF
- Initial EPUB format approved in 2007, superseding Open eBook standard
- EPUB 2.0.1 approved 2010
- EPUB 3 approved October 2011
- EPUB 3 Fixed Layout, May 2012; Indexes, Jan. 2014
- EPUB 3.0.1 approved June 2014

EPUB 3 features

HTML 5 and CSS 3

JavaScript (and libraries)

Audio, video, read-aloud (SMIL)

Text orientation

Unicode support

Reader features

Table of Contents

Search (or Find)

Previous and next browsing

Bookmarks and annotations

Index (not yet, but in the spec)

UI configuration (fonts, colors, sizes)

Supported layouts

- Paged model (traditional)
- Fixed layout (like a PDF)
- Topic-oriented, vertically scrolling (EPUB Help)
- EPUB format can provide all formats used by techcomm groups
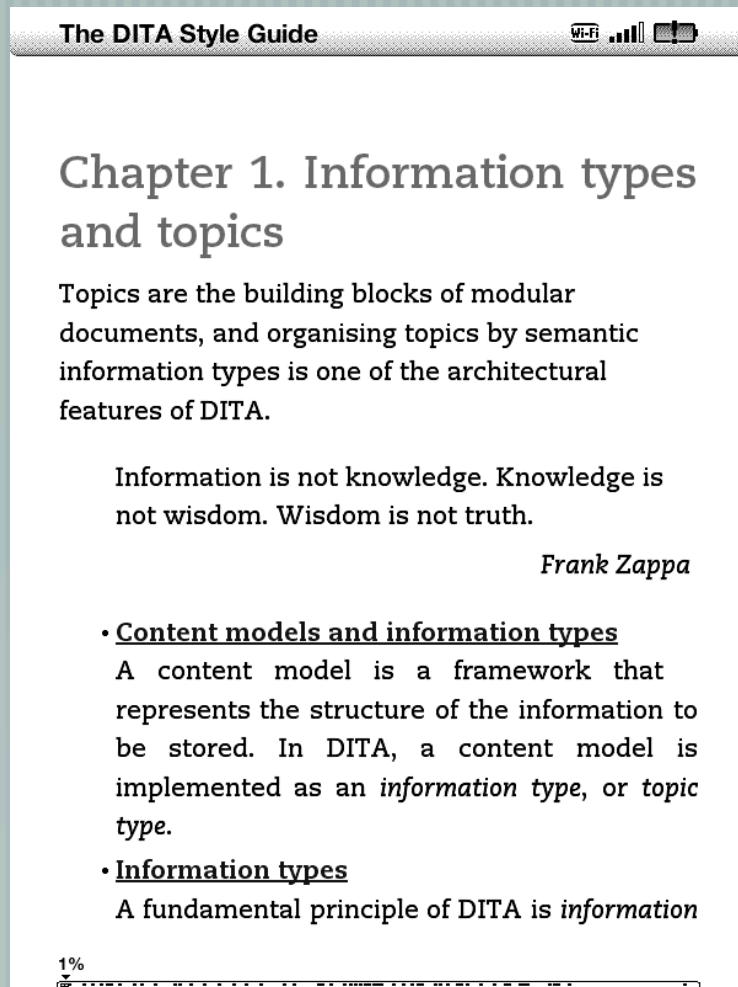- Deliver content for desktop or mobile, on all platforms

Potential uses

- User guides - Paged, FXL, EPUB Help

- References - Paged, EPUB Help

- Learning and training material - FXL, EPUB Help

- Online Help - EPUB Help

- Print-ready documents - FXL

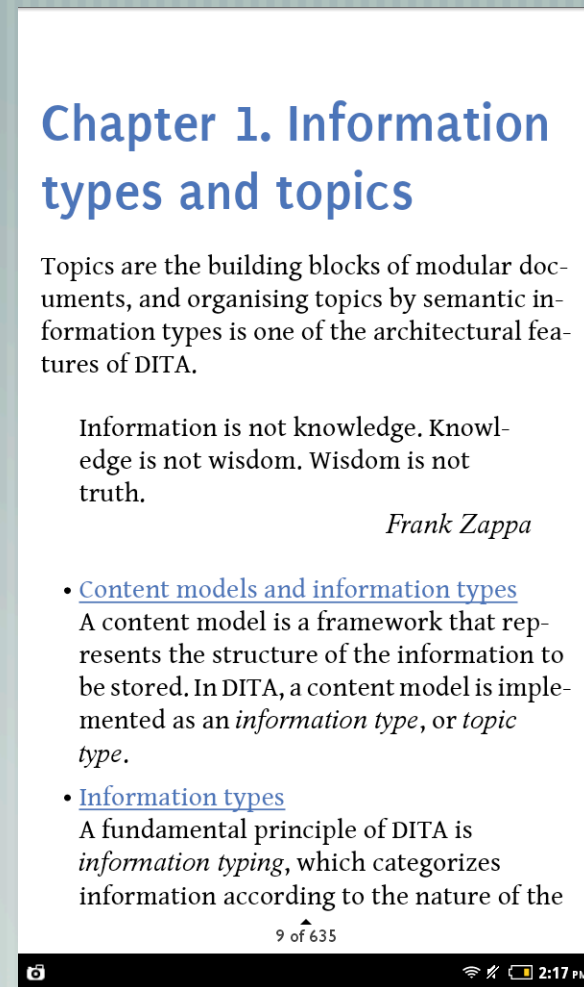- All formats can include JavaScript to provide interactivity (requires EPUB 3)

Paged (reflowing) EPUB

- Traditional ebook model

- Best for "linear" books

- Content reflows to fill available space (based on screen size and font size)

- EPUB 2 or EPUB 3

- Can be produced by many tools

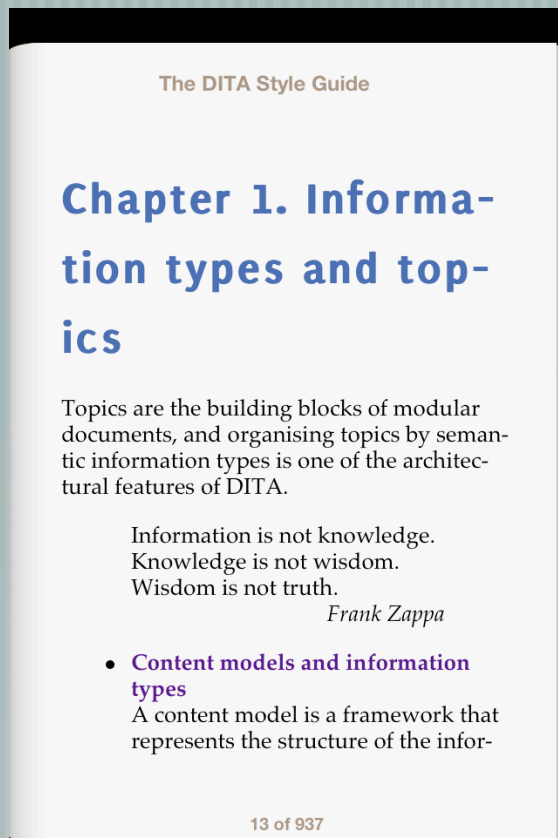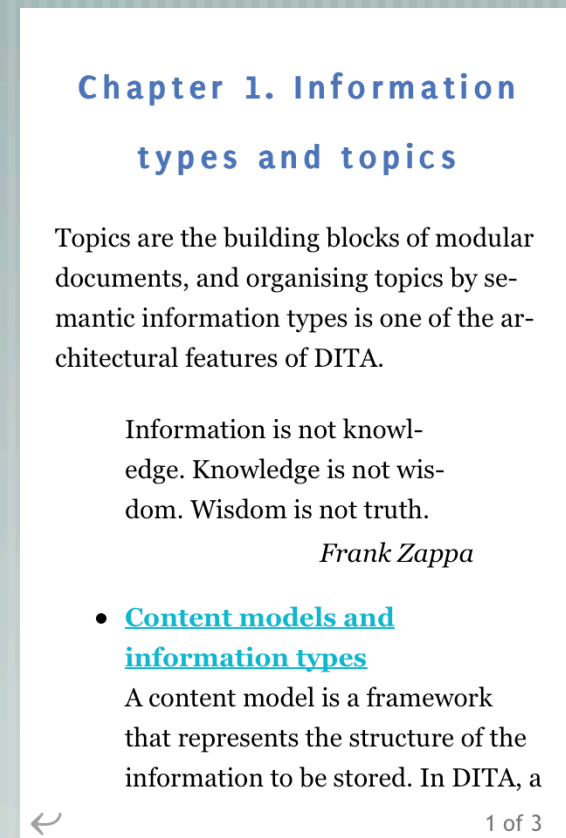- Works on all reader devices and applications

Dedicated ereaders

The DITA Style Guide

Chapter 1. Information types and topics

Topics are the building blocks of modular documents, and organising topics by semantic information types is one of the architectural features of DITA.

> Information is not knowledge. Knowledge is not wisdom. Wisdom is not truth.
>
> *Frank Zappa*

- **Content models and information types**
  A content model is a framework that represents the structure of the information to be stored. In DITA, a content model is implemented as an *information type*, or *topic type*.
- **Information types**
  A fundamental principle of DITA is *information*

1%

Kindle 4 basic

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2:17 PM

Nook Color

Mobile device + reader app

iPhone + iBooks app

iPhone + Kobo app

Desktop reader apps

Chrome + Readium

Firefox + EPUBReader

Desktop reader apps

AZARDI :: The DITA Style Guide – Tony Self

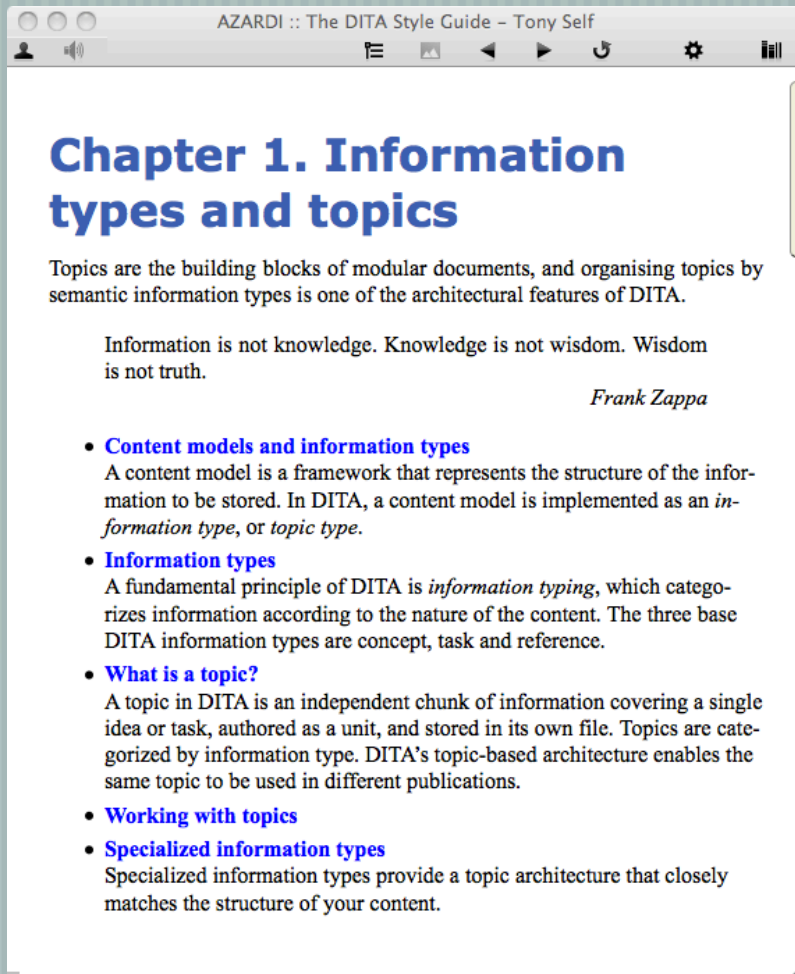## Chapter 1. Information types and topics

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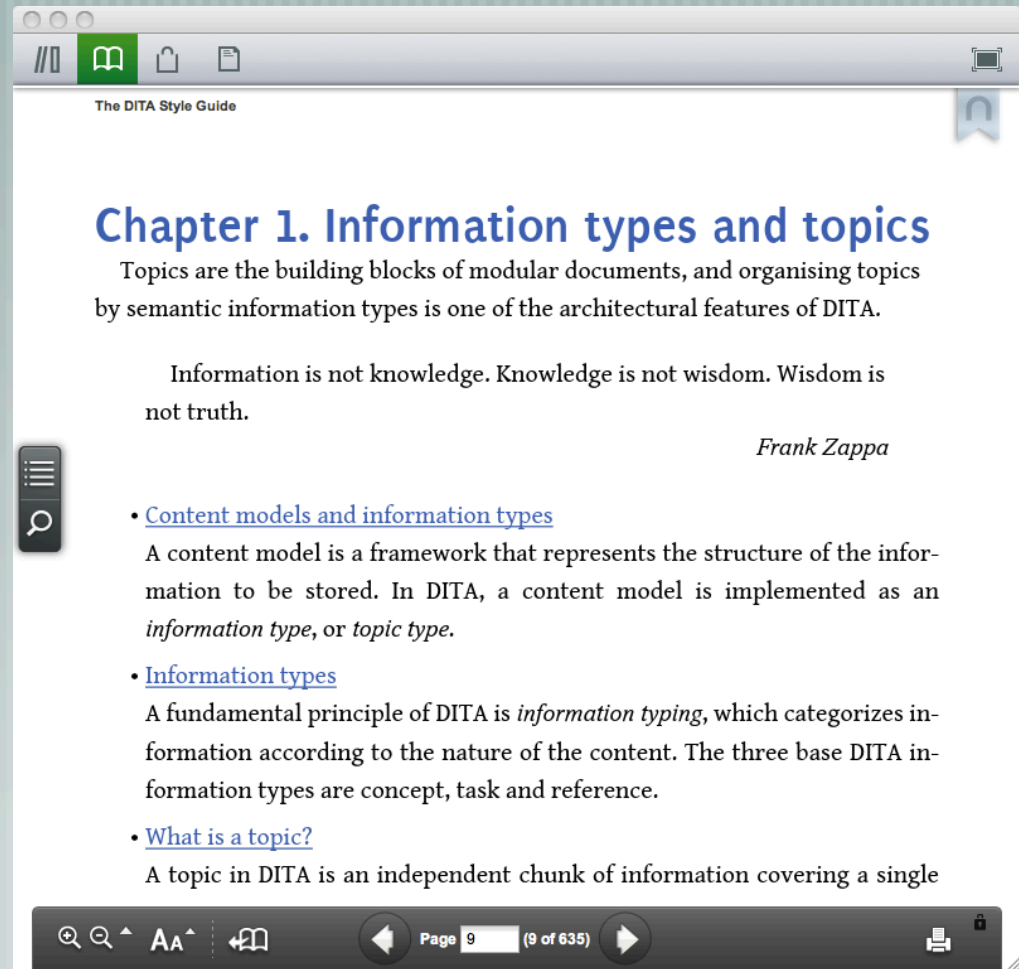
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- **Information types**
  A fundamental principle of DITA is *information typing*, which categorizes information according to the nature of the content. The three base DITA information types are concept, task and reference.
- **What is a topic?**
  A topic in DITA is an independent chunk of information covering a single idea or task, authored as a unit, and stored in its own file. Topics are categorized by information type. DITA's topic-based architecture enables the same topic to be used in different publications.
- **Working with topics**
- **Specialized information types**
  Specialized information types provide a topic architecture that closely matches the structure of your content.

AZARDI

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Nook desktop

Fixed layout EPUB

- Provides an option for a fixed layout delivery

- Think of this like a PDF

- Best for graphic and layout intensive books, or when precise pagination is required

- Develop by hand, custom scripting, or use Adobe InDesign

- Requires "compliant" EPUB 3 reader

1 Yosemite National Park

Yosemite National Park is a United States National Park spanning eastern portions of Tuolumne, Mariposa and Madera counties in the central eastern portion of California, United States.

Figure 1-1: Yosemite Valley from Tunnel View

Location	Tuolumne, Mariposa, & Madera counties, California, USA
Nearest city	Mariposa, California
Coordinates	37°44′43″N 119°35′54″W
Area	761,268 acres (308,074 ha)
Established	October 1, 1890
Visitors	3,951,393 (in 2011)
Governing body	National Park Service
	UNESCO World Heritage Site

The park covers an area of 761,268 acres (3,080.74 km2) and reaches across the western slopes of the Sierra Nevada mountain chain. Over 3.7 million people visit Yosemite each year: most spend their time in the seven square miles (18 km2) of Yosemite Valley. Designated a World Heritage Site in 1984, Yosemite is internationally recognized for its

PDF

roof pendants because they were once the roof of the underlying granitic rock.

Erosion acting upon different types of uplift-created joint and fracture systems is responsible for creating the valleys, canyons, domes, and other features we see today. These joints and fracture systems do not move, and are therefore not faults. Spacing between joints is controlled by the amount of silica in the granite and granodiorite rocks; more silica tends to create a more resistant rock, resulting in larger spaces between joints and fractures.

Pillars and columns, such as Washington Column and Lost Arrow, are created by cross joints. Erosion acting on master joints is responsible for creating valleys and later canyons. The single most erosive force over the last few million years has been large alpine glaciers, which have turned the previously V-shaped river-cut valleys into U-shaped glacial-cut canyons (such as Yosemite Valley and Hetch Hetchy Valley). Exfoliation (caused by the tendency of crystals in plutonic rocks to expand at the surface) acting on granitic rock with widely spaced joints is responsible for creating domes such as Half Dome and North Dome and inset arches like Royal Arches.

Figure 1-3: El Capitan

Popular features

Yosemite Valley represents only one percent of the park area, but this is where most visitors arrive and stay.

- Tunnel View is the first view of the Valley for many visitors and is extensively photographed.

EPUB Help

- Similar in functionality to HTML Help (CHM)
- Vertically scrolling, topic-oriented presentation of content
- Best for online Help
- Access the right content, get the info and get back to work
- Context sensitivity is now possible in an EPUB!
- Develop by hand or custom scripting
- Requires "very compliant" EPUB 3 reader

EPUB Help

iBooks - iOS

Readium+Chrome - Mac

EPUB Help

Using the Reference Manager

Lets you select a conref, xref, or link target by specifying the file, element type, and element.

The Reference Manager is displayed when inserting a conref, xref, or link. To insert a conref, choose Insert Conref from the DITA menu, to insert an xref or link, use the Element Catalog. Note that the Reference Manager is only displayed for xref or link elements if they are defined as a "Container" rather than a "Cross-Reference" element in your EDD.

Gitden Reader - iOS

AZARDI Desktop - Mac

DEMO!

Live demo of context-sensitive EPUB Help

First ever public showing!

Issues and limitations

- Publishing tools only support "basic" layouts

- Most readers not compliant with "new" layouts

- Probably won't work with dedicated readers (like Kindle)

- Must hand-code for now

Useful EPUB 3 readers

Desktop
- AZARDI (Mac, Linux, Windows)
- Chrome + Readium (Mac, Linux, Windows)

Mobile
- Apple iBooks (iOS)
- Gitden Reader (Android, iOS)

EPUB tools and utilities

- EPUB 3 editors
  - Oxygen XML editor
  - BlueGriffon EPUB Edition
- Calibre - multi-purpose tool
- epubcheck - validator
- kindlegen - converts EPUB 3 to KF8

Resources

EPUB 3.0.1 specification - idpf.org/epub/301

CSS 3 Module Info - www.css3.info/modules

BISG, Field Guide to Fixed Layout for E-Books – https://www.bisg.org/publications/field-guide-fixed-layout-e-books

IGP, ePub3 Fixed Layout Packaging – http://apex.infogridpacific.com/df/epub3packaging-flo.html

EPUB Resources – www.epubtest.com/resources.php

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