

FUTURE OF TDO CONTENT

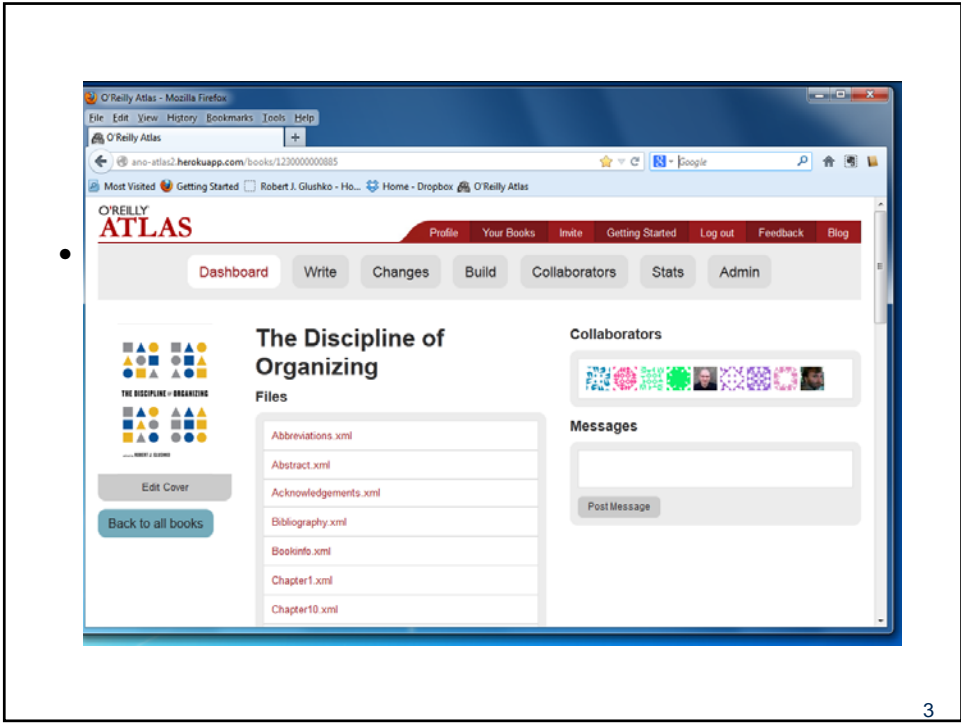
- The first editions
- Upcoming “liberation” of first edition pdfs – Summer 2014
- Enhanced ebooks
- TDO in a browser
- Shared resources

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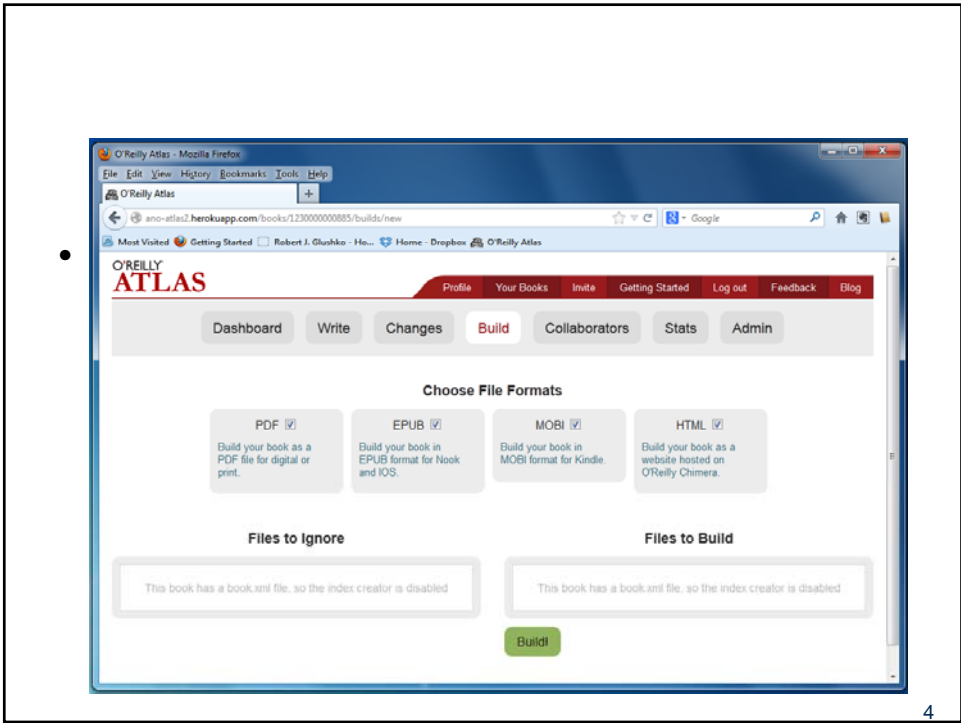
The First Editions

- The first print and ebook digital editions (epub and Kindle mobi) were produced from the same source files using the O'Reilly Atlas publishing system
- They are essentially identical except for the interactions like search and hyperlinking that are intrinsic to the digital formats
- (We now have our own capability to produce ebooks outside of Atlas)

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Resisting the Siren of Single-Sourcing

- Without Atlas we wouldn't have been able to publish print and ebook versions simultaneously
- But single-sourcing with transformation of print-oriented content to ebook formats might have lulled us into authoring the book for print and treating the ebook versions as free afterthoughts
- Fortunately, we had Murray Maloney as the markup and production editor, who also managed the contributions of O'Reilly and Bob Stayton

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Investing in Markup

- We decided to invest heavily in markup that was not used in the print version
- This gives us enhanced ebooks now and patterns to follow for additional enhancements
- The markup of entities in the text will be more valuable in "open data" or "semantic web" contexts in the future

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The Enhanced Academic Edition (for textbook use)

- Accessible captions for all non-text components
- 30 photos with detailed captions
- "Quiz mode" that transforms the "Key Points" at the end of Chapters 2-10 into interactive question and answer pairs
- An additional case study in Chapter 10
- Refined endnote categories with category markers
- We will further enhance this for Fall 2014 courses

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eBook Exploitable Markup

```

<sect1 id="section-2.6" label="2.6">
  <title>Key Points in Chapter Two</title>
  <qandaset role="quiz">
    <qandaentry>
      <question><para>Which activities are common to all      organizing
systems?</para></question>
      <answer><para>Selection, organizing, interaction design,
and      maintenance activities occur in every organizing
system.</para>
      <para>See <xref linkend="section-2.1"/>.</para>
    </answer>
  </qandaentry>

```

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Only Answers Appear in Print Book

2.6 Key Points in Chapter Two

- Selection, organizing, interaction design, and maintenance activities occur in every organizing system.
- These activities are not identical in every domain, but the general terms enable communication and learning about domain-specific methods and vocabularies.
- The most fundamental decision for an organizing system is determining its resource domain, the group or type of resources that are being organized.
- Even when the selection principles behind a collection are clear and consistent, they can be unconventional, idiosyncratic, or otherwise biased.

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eBook Exploitable Markup

```

<sect1 id="section-2.6" label="2.6">
  <title>Key Points in Chapter Two</title>
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      <question><para>Which activities are common to all organizing
systems?</para></question>
      <answer><para>Selection, organizing, interaction design,
and maintenance activities occur in every organizing
system.</para>
      <para>See <xref linkend="section-2.1"/>.</para>
    </answer>
  </qandaentry>

```

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The screenshot displays a digital interface for 'The Discipline of Organizing'. The top section, titled '2.6. Key Points in Chapter Two', includes a 'Switch to Quiz Mode' button and two bullet points: 'Selection, organizing, interaction design, and maintenance activities occur in every organizing system. See §2.1, "Introduction".' and 'These activities are not identical in every domain, but the general terms enable communication and learning about domain-specific methods and vocabularies. See §2.1, "Introduction".' Below this is a 'Self-Review' section with a 'Question' asking 'Which activities are common to all organizing systems?'. Navigation buttons include 'Show Answer', 'Next Question', 'Previous Question', and 'Back to Keypoints'. A '11' is visible in the bottom left corner of the screenshot area.

**“Quiz Mode”
Presents the
Questions in
the eBook**

The Breadth vs. Depth Challenge

- A BROAD textbook for a multidisciplinary field represents all the disciplines that contribute to it
- A DEEP textbook treats all the disciplines with rigor and nuance
- ***Can a textbook be deep and broad at the same time?***

Attacking the Breadth vs. Depth Challenge

- We had been bloating the book with disciplinary nuance that made the book more credible to experts but made it less accessible for students
- The solution turned out to have ancient roots in book design that we have adapted to ebooks

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Using “Tagged Content” to Address the “Breadth” vs. “Depth” Challenge

- Supplemental content can be tagged or typed by discipline, target audience, or a contextual category
- Reader can use these tags to decide whether or not to read the note
- Useful in both print and ebooks but radically different user experiences

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Tagged Endnotes in TDO

- About 24% of the content in TDO was converted to endnotes tagged by discipline
- This makes depth into a choice rather than a distraction or confusion
- Could think of this as “inevitable” **disciplinary-specific annotation** that we decided to create in advance
- We plan to further “refactor” TDO to put more of the existing content into endnotes to make each chapter shorter

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Endnote Markers in Print

2.3.2 Organizing Digital Resources

Organizing systems that arrange digital resources like digital documents or information services have some important differences from those that organize physical resources. Because digital resources can be easily copied or inter-linked, they are free from the “one place at a time” limitation.⁴⁸ The actual storage locations for digital resources are no longer visible or very important. It hardly matters if a digital document or video resides on a computer in Berkeley or Bangalore if it can be located and accessed efficiently.⁴⁹

Moreover, because the functions and capabilities of digital resources are not directly manifested as physical properties, the constraints imposed on all *material* objects do not matter to digital content in many circumstances.^{50 51}

ENDNOTES MARKED WITH NUMBERED
SUPERSCRIPTS

Link following “by hand and eye” – turning to the
notes section at end of each chapter

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Tagged Endnotes in Print Book (at end of each chapter)

44. [Computing] Web resources are typically discovered by computerized “web crawlers” that find them by following links in a methodical automated manner. Web crawlers can be used to create topic-based or domain-specific collections of web resources by changing the “breadth-first” policy of generic crawlers to a “best-first” approach. Such “focused crawlers” only visit pages that have a high probability of being relevant to the topic or domain, which can be estimated by analyzing the similarity of the text of the linking and linked pages, terms in the linked page’s URI, or locating explicit semantic annotation that describes their content or their interfaces if they are invocable services (Bergmark et al. 2002), (Ding et al. 2004).

45. [CogSci] In this book we use “property” in a generic and ordinary sense as a synonym for “feature” or “characteristic.” Many cognitive and computer scientists are more precise in defining these terms and reserve “property” for binary predicates (e.g., something is red or not, round or not, and so on). If multiple values are possible, the “property” is called an “attribute,” “dimension,” or “variable.” See (Barsalou and Hale 1983) for a rigorous contrast between feature lists and other representational formalisms in models of human categories.

46. [LIS] Libraries and bookstores use different classification systems. The kitchen in a restaurant is not organized like a home kitchen because professional cooks think of cooking differently than ordinary people do. Scientists use the Latin or binomial (genus + species) scheme for identifying and classifying living things to avoid the ambiguities and inconsistencies of common names, which differ across languages and often within different regions in a single language community.

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Pop-up “Web” Note in eBook

matters if a digital document or video resides on a computer in Berkeley or Bangalore if it can be located and accessed efficiently.⁴⁹[Web]

Moreover, because the function is manifested as physical property, it does not matter to digital content if

An organizing system for digital resources that are associated with them. The storage capacity to digital organizing systems and descriptive

systems can support collections and interactions at a scale that is impossible in organizing systems that are entirely physical, and they can implement services and functions that exploit the exponentially growing processing, storage and communication capabilities available today.⁵²[Web]

[49] [Web] Web-based or “cloud” services are invoked through URIs, and good design practice makes them permanent even if the implementation or location of the resource they identify changes (Berners-Lee 1998). Digital resources are often replicated in content delivery networks to improve performance, reliability, scalability, and security (Pathan et al. 2008); the web pages served by a busy site might actually be delivered from different parts of the world, depending on where the accessing user is located.

2.3.2. Organizing Digital Resources

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SCHOOL OF INFORMATION

The Book in a Browser

- We have developed an experimental "[Book in the browser](#)" edition that allows the book to be read in a browser, with pagination, adjustable fonts, full text search, and an annotation facility
- Built with Epub.js, a JavaScript library that unzips any epub format book for rendering in any device with a web browser
- <http://futurepress.org/>
<https://github.com/futurepress/epub.js/>
- Uses the hypothes.is open annotation platform

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Shared Resources

- Lecture notes
- Assignments
- Exam questions
- Case studies

- How can these best be shared? How should they be organized (by topic / by TDO ToC?)
- Video lectures? Is there a TDO mini-MOOC in our future?
- Ebook authoring technology?

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