Specification of needs

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# Introduction

This specification of needs outlines Cappelen Damm Education’s requirements for the production of EPUB 3 digital textbooks.

# Content requirements

## Book cover

The book cover should **not** be included in the running text of the EPUB-file. It should instead be included in the EPUB package, as per the EPUB specification.

## Prelims

Cappelen Damm prelims include the title page and foreword. Often we ask to combine these elements. The table of content should not be a part of the EPUB. Any deviation from this rule will be specified in the manuscript. The imprint page is placed at the end of the EPUB.

## Main body

The main body content from the paper textbook should be displayed in **one column**. There may be some exceptions, such as the use of two columns inside a colored box. This will be clearly indicated in the script.

The **order** that the various content items in the paper textbook should appear in when they are displayed in one column is clearly indicated in the script.

Some content items are to be **removed** in the digital version of the textbook. This will be clearly indicated in the script.

Each chapter should be represented with its own file within the EPUB.

## Fonts and font size

For each EPUB, we choose one of three fonts as the main font. These are:

* DejaVu (<http://www.fontsquirrel.com/fonts/dejavu-sans>)
* Georgia
* Droid (<https://www.google.com/fonts/specimen/Droid+Sans>)

We use DejaVu as the default font, but in some EPUBs we may want to use the two others. We specify the chosen font in the manuscript.

Some of our books use different fonts throughout the book. When making the EPUB there is no need for trying to replicate these fonts. If we have chosen DejaVu for the EPUB to replace the main font in the book and parts of that book uses another font, please use Georgia for that part in the EPUB (or vice versa if we have chosen Georgia).

We want 1em to be the default font size. If different parts of the book use different text sizes, please try to keep the size ratio between the main text and the part with smaller/larger text intact in the EPUB. This rule should not apply if the difference between the two text parts is big. No font in the body text in the EPUB should be smaller than 0.88em or larger than 1.10em (this does not apply to headings).

Keep upper and lower cases the same as in the book in both headings and paragraphs.

## Paragraph formatting

In text we require a **blank line** between paragraphs, instead of using indentation. No indentation is needed even if the paragraph in the PDF is indented.

**Exceptions:**

* **Poems** should be formatted exactly the way they are formatted in the paper textbook.
* The **anthology** part of language books should retain the formatting from the paper textbook, such as the use of indentation instead of blank lines. All of this will be clearly indicated in the script.

## Structure

The structure for each book can be gauged from the table of contents for that book. Most titles follow this structure:

Section (heading 1)

Chapter (heading 2)

Sub-heading (heading 3)

Some books do not have sections.

## Images

All images are references that point to images in a folder.

All images included in the EPUB 3 should be at least 1536 px wide, or as wide as possible for images that are smaller than that. The images may be displayed smaller in the running text. DPI for images should be no higher than 72.

Image **captions** should always be placed under each image. The image caption font size should be 0.88em.

Image categories: The size and placement of each image is indicated through the use of image categories. The category is placed as a class on the figure element, not the image itself. For Cappelen Damm’s EPUBs the images should be aligned with the left edge of the main column. The image should cover maximum 100% of the figure width.

Images in portrait format (taller than they are wide) should never be taller than 90% of the column width. Please scale large images from the books accordingly in the EPUB.

If an images is not marked in the manuscript, try to make the appearance of the image in the EPUB as close to the PDF as possible by using the categories below.

In some cases, how the image appears in the PDF does not necessarily reflects how the image should appear in the EPUB. Please follow the manuscript and the categories stated there.

A = Section/chapter image (full width in the typed area)

B = Full width in the typed area

C = Half width in the typed area, left aligned, no text reflow around the image

D = Half width in the typed area, left aligned, text reflow around the image

E = Half width in the typed area, left aligned, text reflow around the image (use only when two images are placed next to each other)

F = Half width in the typed area, right aligned, text reflow around the image (use only when two images are placed next to each other)

The CSS for each category is described in the example EPUB. For more on images placed side by side, see “Technical requirements” later in this document.

Some images are graphical elements and should not be coded as images. These graphical elements should be implemented with CSS. These elements will be marked in the manuscript with the text “CSS Element”.

<http://www.w3schools.com/css/css_pseudo_elements.asp>

## Tables

All tables should use HTML markup for tables, unless otherwise stated in the manuscript. Do not turn a table into an image without consulting us. For some complex tables images can be the best solution.

## Colours

The colors used in the paper textbook will not necessarily be reused. It is important that the color contrast between background and text is at least 4.5.

If the contrast does not meet the specified requirement, adjust the text or background to the appropriate color variant.

<http://webaim.org/articles/visual/lowvision#highcontrast>

<http://snook.ca/technical/colour_contrast/colour.html#fg=33FF33,bg=333333>

## Key words in margins

Key words are words that appear in the margins in the PDF, to help users find content. They are not glossary words or definitions, and appear alone. They should be deleted from the margins, but the word(s) should be displayed in bold in the main text.

## Glossary words

The translation should be added where the word(s) first appears in the text.

There are three ways to handle the visual glossary lists. Which one to use will be stated in the PDF manuscript.

* Do not show a list of glossary. Only add them as glossary items.
* The list of glossary words in the margin should be moved so that it appears directly after the text.
* A complete list of definitions should be placed at the end of the book.

See “Technical specifications” below for description of the wanted file structure.

## Page numbers

The element that contains the page number from the paper textbook can be either a **div** or a **span**:

<div epub:type="pagebreak" id="page42" title="42"></div>

<span epub:type="pagebreak" id="page42" title="42"></span>

A **div** is used if the first element on the page is an image. **Span** is used if the first element on the page is text, and it must be placed directly in front of the first word on the page. It can be placed within any kind of text element.

## Languages

Some books may contain multiple languages. In these books the manuscript will say what part of the text that should be marked with a different language.

## Epub:type

All publications should use the *EPUB 3 Structural Semantics Vocabulary* for describing structural semantics of written works following these guidlines: <http://www.idpf.org/epub/vocab/structure/>

Not all of the elements from the vocabulary are relevant for our books. These are the chosen elements for our publications:

* Cover
  + o The publications cover(s), jacket information, etc.
  + o HTML usage context: [section](http://www.w3.org/TR/html5/sections.html#the-section-element), [body](http://www.w3.org/TR/html5/sections.html#the-body-element-0)
* Frontmatter
  + o Preliminary material to the main content of a publication, such as tables of contents, dedications, etc.
  + o HTML usage context: [section](http://www.w3.org/TR/html5/sections.html#the-section-element), [body](http://www.w3.org/TR/html5/sections.html#the-body-element-0)
* Bodymatter
  + o The main content of a publication.
  + o HTML usage context: [section](http://www.w3.org/TR/html5/sections.html#the-section-element), [body](http://www.w3.org/TR/html5/sections.html#the-body-element-0)
* Backmatter
  + o Ancillary material occurring after the main content of a publication, such as indices, appendices, etc.
  + o HTML usage context: [section](http://www.w3.org/TR/html5/sections.html#the-section-element), [body](http://www.w3.org/TR/html5/sections.html#the-body-element-0)
* Part
  + o A major structural division of a piece of writing, typically encapsulating a set of related chapters.
  + o HTML usage context: section, body
* Chapter
  + o A major structural division of a piece of writing.
  + o HTML usage context: section, body
* Subchapter
  + o A major sub-division of a chapter.
  + o HTML usage context: section, body
* Toc
  + o A table of contents, typically appearing in the work's frontmatter, or at the beginning of a section.
  + o HTML usage context: sectioning content
* Appendix
  + o Supplemental information.
  + o HTML usage context: sectioning content
* Colophon
  + o A brief description usually located at the end of a publication, describing production notes relevant to the edition.
  + o HTML usage context: sectioning content, grouping content
* Glossary
  + o An alphabetical list of terms in a particular domain of knowledge, with the definitions for those terms.
  + o HTML usage context: dl, sectioning content
* Glossterm
  + o A glossary term.
  + o Required parent context: glossary
  + o HTML usage context: When the element on which the property appears is a dt element within a dl element marked with the glossary property, then the glossterm property on the given dt element is implied.
* Glossdef
  + o The definition of a term in a glossary.
  + o Required parent context: glossary
* Footnote
  + o A note appearing at the bottom of a page.
  + o See also: footnotes
  + o HTML usage context: On the aside element when identifying a single footnote, or on descendants of sectioning content when identifying individual footnotes in a group (refer to footnotes and rearnotes).
* Pagebreak
  + o A (sometimes valued) separator denoting the position before which a break between two contiguous pages occurs in a statically paginated media.
  + o HTML usage context: phrasing and flow content, where the value of the carrying elements title attribute takes precedence over element content for the purposes of representing the pagebreak value
* Page-list
  + o A list of references to pagebreaks in a statically paginated media
  + o HTML usage context: sectioning content

## Author register

The author register should be placed at the end of the book. Links should be added from each author to their text in the book.

# Technical requirements

## General use of markup

Never use styling of an html element as a substitute for an existing html element.

Wrong:

<p class="bull">• vere rettferdig</p>

Right:

<ul>

<li>vere rettferdig</li>

</ul>

## Chapter title

The title element in all files representing a chapter should contain the title of the chapter

## Structure

All sections and sub-sections in the book should use the <section>-tag for mark up following HTML standards <http://www.w3schools.com/tags/tag_section.asp> .

Each sub-section down to H3 should have its own section markup.

<section class=”chapter chapter1”>

<h1>WWF</h1>

<p>The World Wide Fund for Nature (WWF) is....</p>

<section class=”sub-2”>

<h2>Polar bear</h2>

<p>The World Wide Fund for Nature (WWF) is supporting the polar bear</p>

<section class=”sub-3”>

<h3>Polar bear environment</h3>

<p>The polar bear is found on the North pole</p>

<h4>Snow</h4>

<p>The snow is part of the environment</p>

</section>

</section>

<section class=”sub-2”>

<h2>Gorilla</h2>

<p>The World Wide Fund for Nature (WWF) is supporting the Gorilla</p>

</section>

</section>

For sections or paragraphs with special styling (color, borders etc.) add a CSS class to the section:

<section class=”sub-2 type1”>

<h2>Gorilla</h2>

<p>The World Wide Fund for Nature (WWF) is supporting the Gorilla</p>

</section>

For special styling within the sections, use a DIV-tag.

<section class=”sub-2”>

<h2>Gorilla</h2>

<div class=”redbox”><p>The World Wide Fund for Nature (WWF) is supporting the Gorilla</p></div>

</section>

## Fonts

All fonts are to be defined in em.

## Glossary words and definitions

Glossary words and definitions should be written like this:

*<a href="glossary1.xhtml#term001" id="glossary\_nr\_1" data-glossary="primary" >Glossary word or definition</a>*

The glossary words and definitions should all appear in one file, composed like this:

*<body>*

*<dl epub:type=”glossary”>*

*<dt data-glossary="term" id=”term001”>*

*<dfn>Glossary word or definition</dfn>*

*</dt>*

*<dd data-glossary="definition">*

*Translation or definition*

*</dd>*

*<dt data-glossary="term" id=”term002”>*

*<dfn>Glossary word or definition</dfn>*

*</dt>*

*<dd data-glossary="definition">*

*Translation or definition*

*</dd>*

*</dl>*

*</body>*

## Internal links

<a href="chapter\_i12-128.xhtml#i12-337">side 19 </a>

Note: Filename must be included

**Phrase tags**

Bold and italic text should always be market with <strong></strong> and <em></em> not <b></b> and <i></i> following these guidlines: <http://www.w3schools.com/tags/tag_em.asp>

**Tables**

All tables should be wrapt in a <figure> -tag with “table” as class name. In the CSS file, make sure that the following rule is added (this is a part of the example EPUB).

.table { overflow-x:scroll;}

The reason for this rule is that tables does not play well on small screens and the described code will add a scrollbar on tables that are too big for a small screen.

Due to a IE specific situation, tables with images in them ignore the table width. To fix this, please make sure that the following code is a part of the CSS for tables (read more: <http://stackoverflow.com/questions/9147255/why-doesnt-ie-respect-table-width-with-fluid-image-child/9147563#9147563>) :

table-layout: fixed;

For table cells (<td>) the following code must be specified in the CSS:

word-break: normal;

The reason for this rule is that IE breaks the words in tables differently than other browsers. This code corrects it.

## MathML

Due to a bug in most browsers, the attribute columnalign must be applied to individual <mtd> elements when constructing MathML tables – like so:

*<mtd columnalign="right">* or *<mtd columnalign="left">*

For elements with double underline, use one <menclose> tag and an empty notation attribute. Add a class called «underline» to the <menclose> tag, and add the double underline with CSS.

Not like this:

<menclose notation="bottom"><menclose notation="bottom"><mn>630</mn><mo>&#xA0;</mo><mi mathvariant="normal">kr</mi></menclose></menclose>

But like this:

<menclose class="underline" notation=""><mn>630</mn><mo>&#xA0;</mo><mi mathvariant="normal">kr</mi></menclose>

And the following CSS:

.underline{

padding: 0em; margin: 0em;   
text-decoration:underline;   
border-bottom: 3px double #000;

}

For all other menclose notations (<https://developer.mozilla.org/en-US/docs/Web/MathML/Element/menclose>) add a class to the elements with a class name that matches the notation name.

## Images

Vector based objects should be converted to PNG24 with transparency where applicable. Please check the PDF carefully to check that the transparency is correct.

Other images can be JPG.

All images and image captions should be placed within a figure element like the following example:

<figure>

<img src="img\_pulpit.jpg" alt="">

<figcaption>Fig1. - A view of the pulpit rock in Norway.</figcaption>

</figure>

If an alternative text is not specified in the manuscript, please use an empty alt attribute.

For images placed side by side, place the two images in a wrapping div and use the E and F categories for the two images.

<div class="doubleimage">

<figure class="var-e1">

<img src="images/left.png" alt="Illustration" />

<figcaption>Aliquam vitae justo at neque interdum volutpat. Sed eget nisi vehicula, pharetra quam at, auctor arcu. Nam ut suscipit mi. </figcaption>

</figure>

<figure class="var-f1">

<img src="images/right.png" alt="Illustration" />

<figcaption>Pellentesque consectetur elementum lacus at tempor. </figcaption>

</figure>

</div>

Adjust the width of the images so the height align perfectly and leave some space between them.

.doubleimage{

overflow: auto;

}

figure.var-e1{

float: left;

width: 49%;

}

figure.var-f1{

float: right;

width: 49%;

}

**Responsive layout**

Images and other elements should have full width in the typed area for small screens. The example EPUB contains the following solution:

HTML:

<meta name="viewport" content="width=device-width”>

CSS:

@media all and (max-width: 720px){

*New code*

}

## Book cover

Please use the following markup in the .opf file

<item id="cover"

href="./images/cover.jpg"

properties="cover-image"

media-type="image/jpeg"/>

## ISBN

ISBN will be specified by us with the EPUB order

**In the content.opf file**

Not like this:

<dc:identifier id="ISBN9788202490317">[http://my-URI-stub/ </dc:identifier>](http://my-URI-stub/%20%3c/dc:identifier%3e)

But like this:

<dc:identifier id="ISBN">9788202490317</dc:identifier>

**In the toc.ncx file:**

Not like this:

<meta name="dtb:uid" content="[http://my-URI-stub/"/](http://my-URI-stub/%22/)>

But like this:

<meta name="dtb:uid" content="9788202490317"/>

# CSS requirements

## Context aware styling

To style an element within a class, use the parent class:

<section class=”sub-2 type1”>

<h2>Gorilla</h2>

<p>The World Wide Fund for Nature (WWF) is supporting the Gorilla</p>

</section>

CSS:

.type1 h2 {

color: green;

}