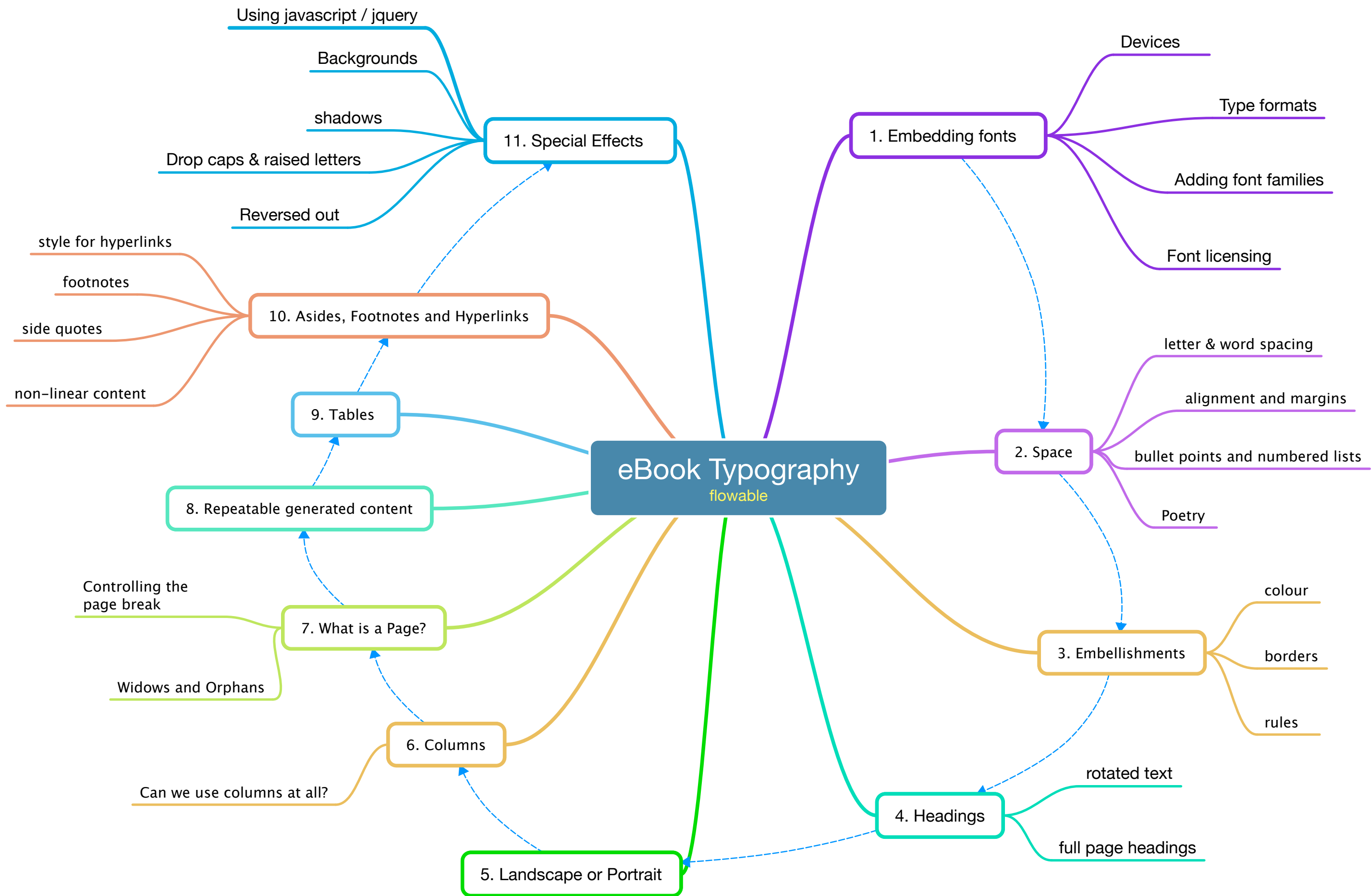
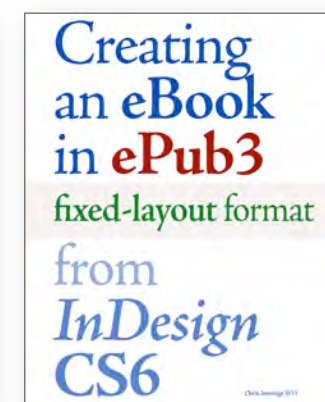
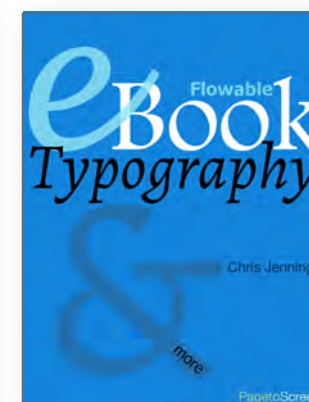
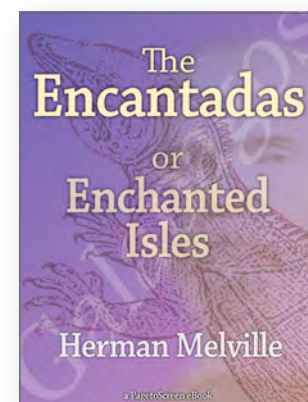
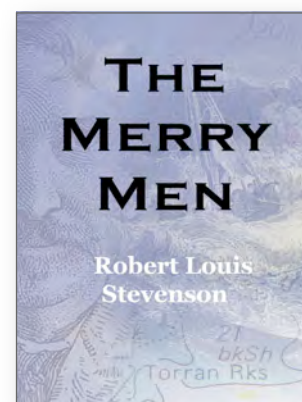
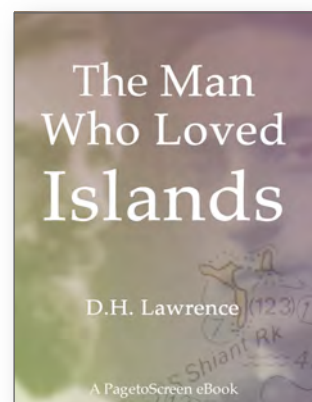
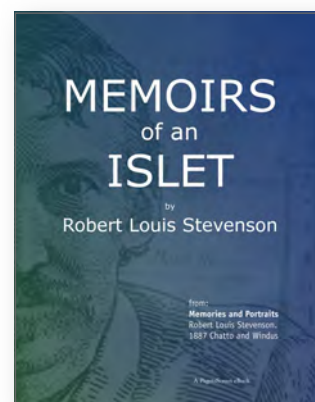


eBook
Typography

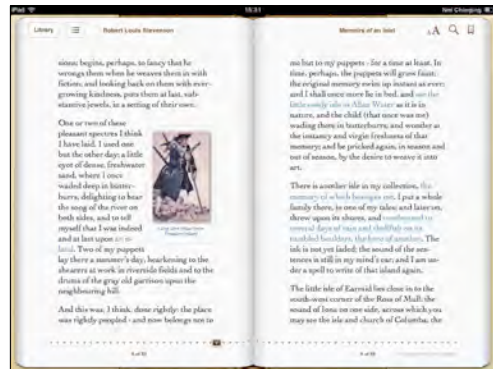


Introduction



Overview

3 kinds of eBooks



- reFlowable
 - user can change many visual attributes
- Fixed layout
 - Just like the printed page but within a reader app
- Book APP
 - bespoke (but standard) interface and content

reFlowable books

- Are great for users
- Typeface and size can be changed
- Content area is fluid
- Typography and design is elusive

Typography in reFlowable eBooks

- Can be initialised by designer
- Needs a dynamic space approach (webish?)
- Is challenging
- Requires fine control with CSS
- WYSIWIG tools don't do it well

Attention to detail

Typographers quotes

"Hello World"

“Hello World”

« Bonjour tout le
monde »

Language differences

Font Embedding

Typeface Control

- Designers may want particular font sets but
- Device differences are challenging
- Compromise!
- Avoid text as image

Device differences

- Tablet and eReaders have fonts
- Make use of these fonts to avoid:
 - File bloat
 - rights issues

Font Embedding

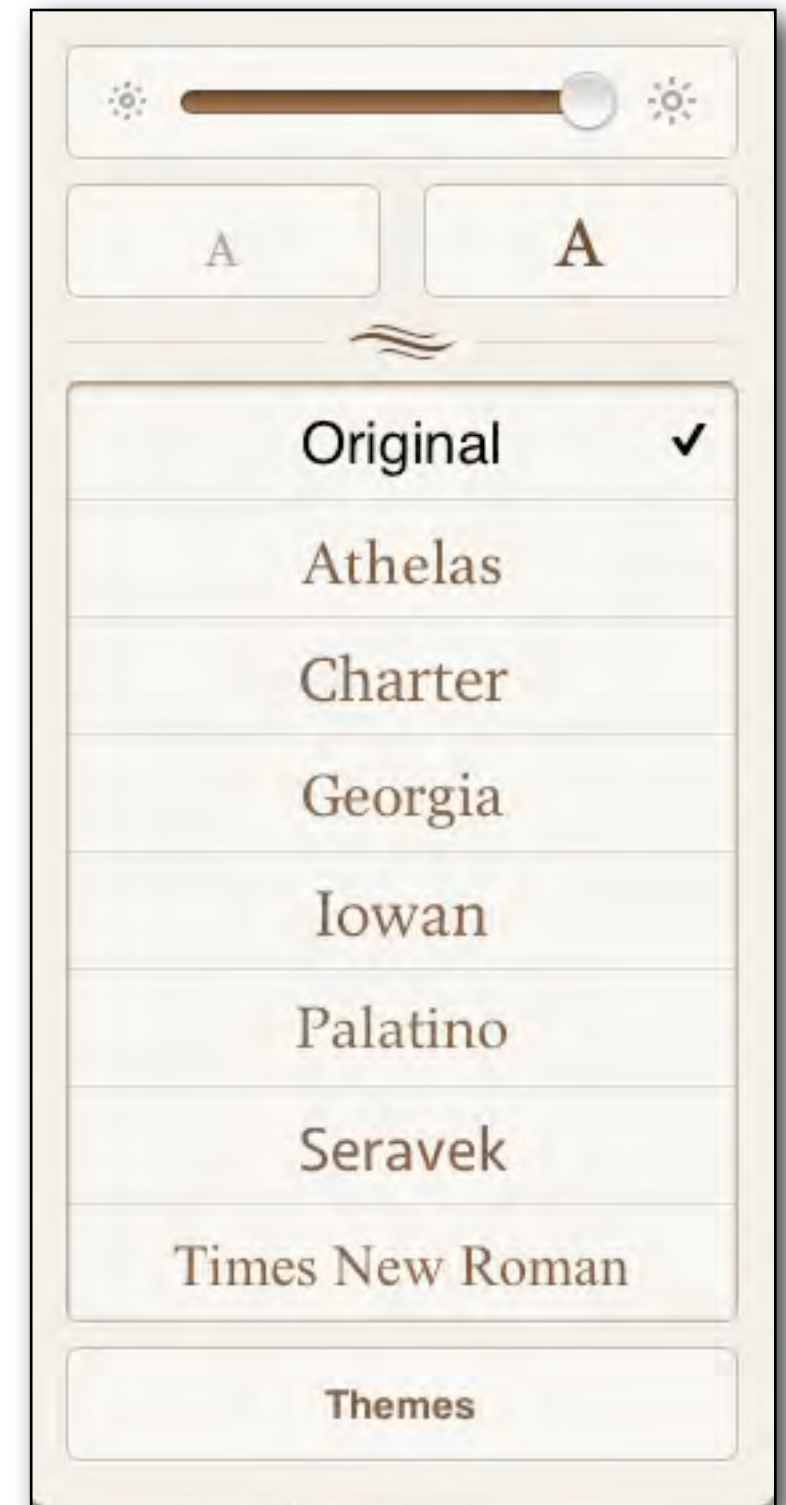
- Consider the rights issues
- Do you have permission?
- Font obfuscation
- Open source?
 - Include the licence in colophon

Font-file Formats

- WOFF (Web Open Font Format) - ePUB3 spec endorsed
- Opentype - also ePUB3 spec endorsed
- Truetype - widely supported but no longer in the specification for ePUB3
- Truetype fonts can be converted to Opentype

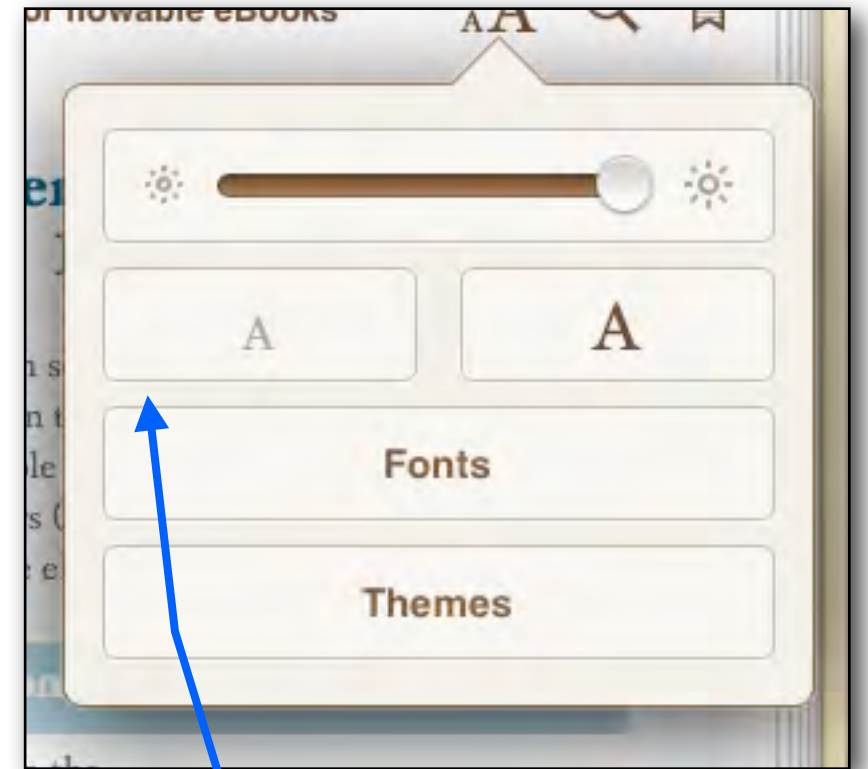
User control

- iPad / iBooks app has selectable fonts
- This will change paragraph (`<p>`) type
- **Heading styles remain** as designed if:
 - marked-up as HTML headings (`h1`, `h2` etc)



Font-size

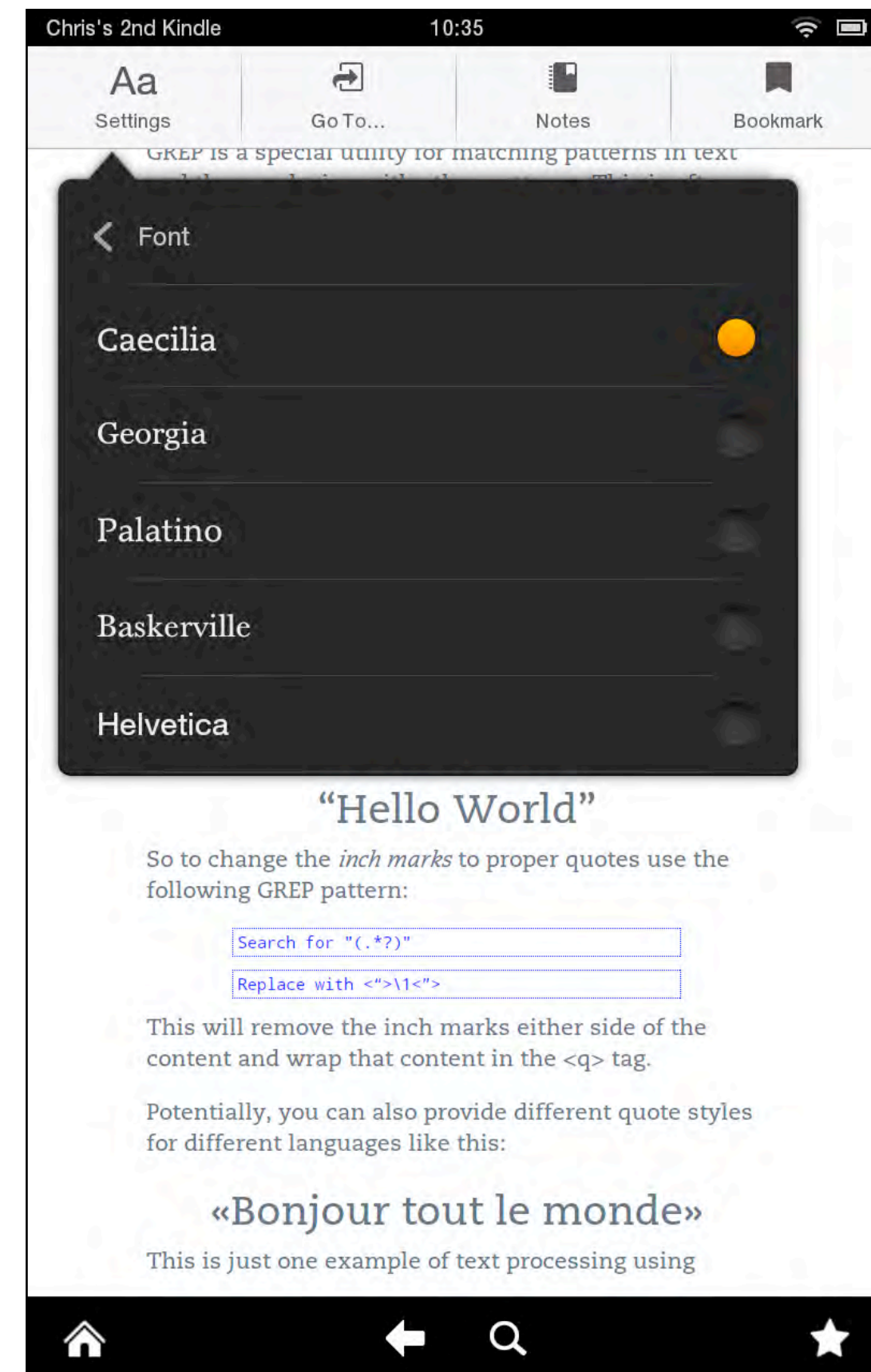
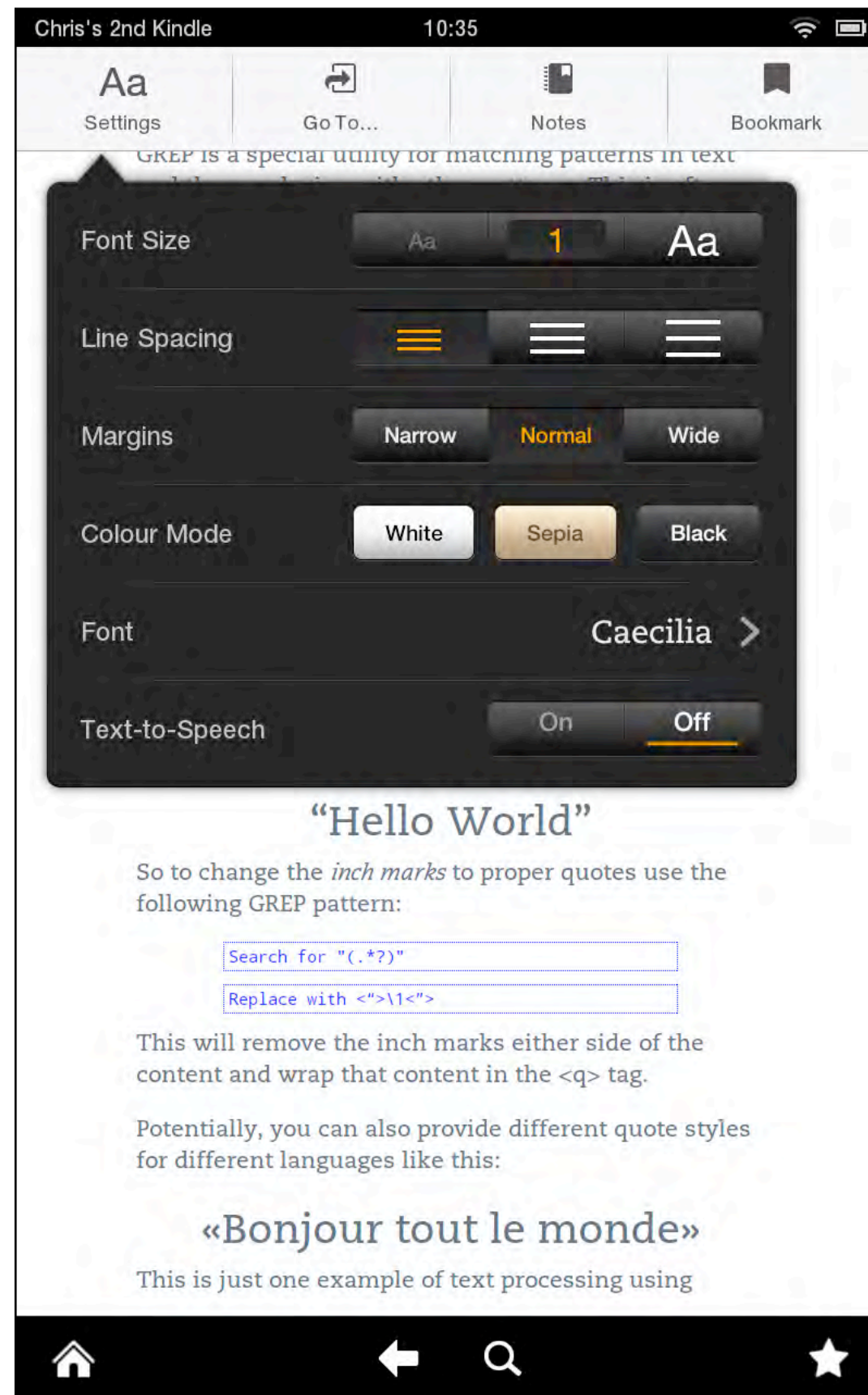
- User can change globally
 - increase / decrease
 - remembered on device for all books
- Leave as default (no size defined) or
- Target when menu is at lowest setting



Devices →

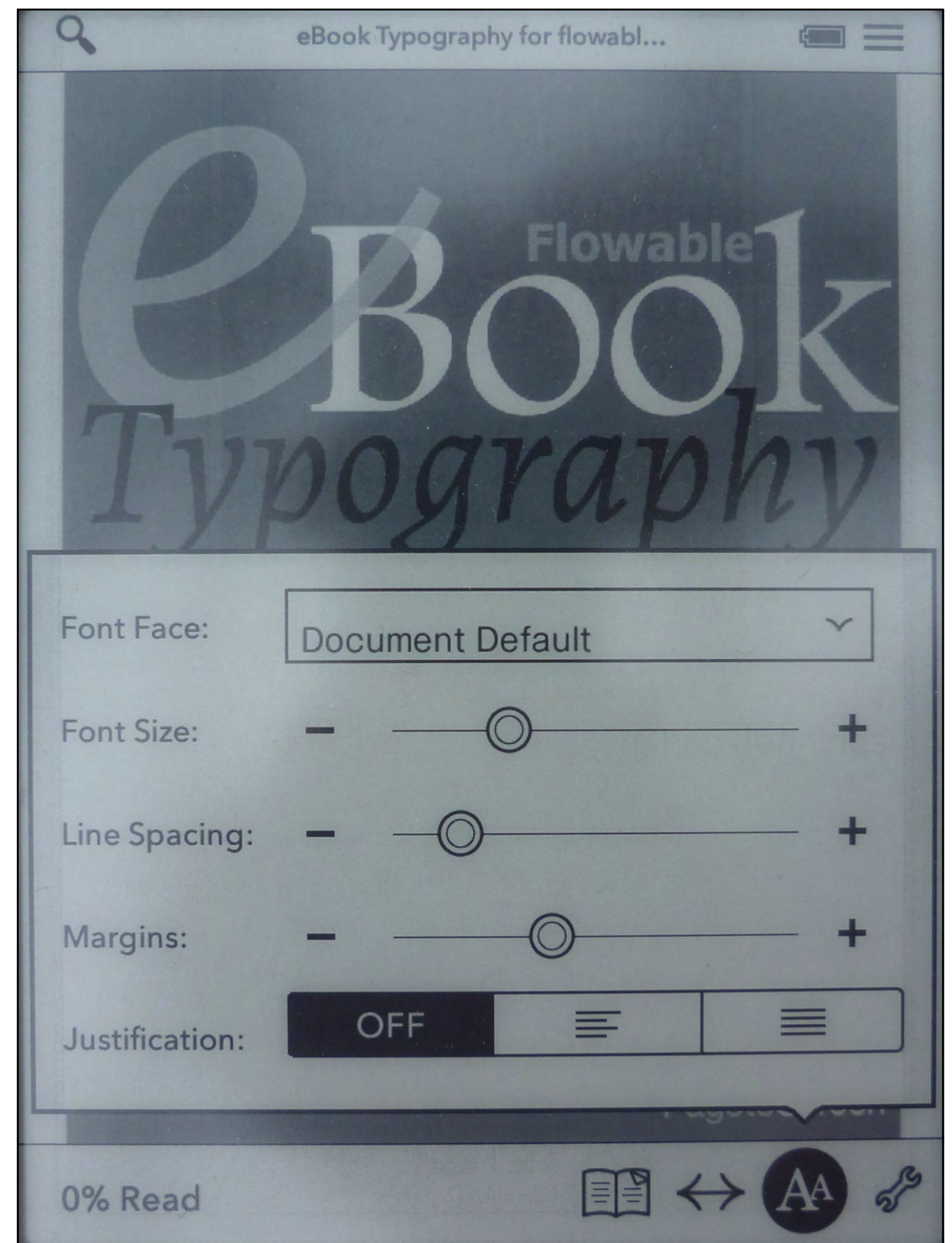
Kindle

- User can change
 - font size
 - Leading
 - Font
 - **Not** justification



Kobo

- User can change:
 - font size
 - Leading
 - Font face
 - Margins
 - Justification





Spacing

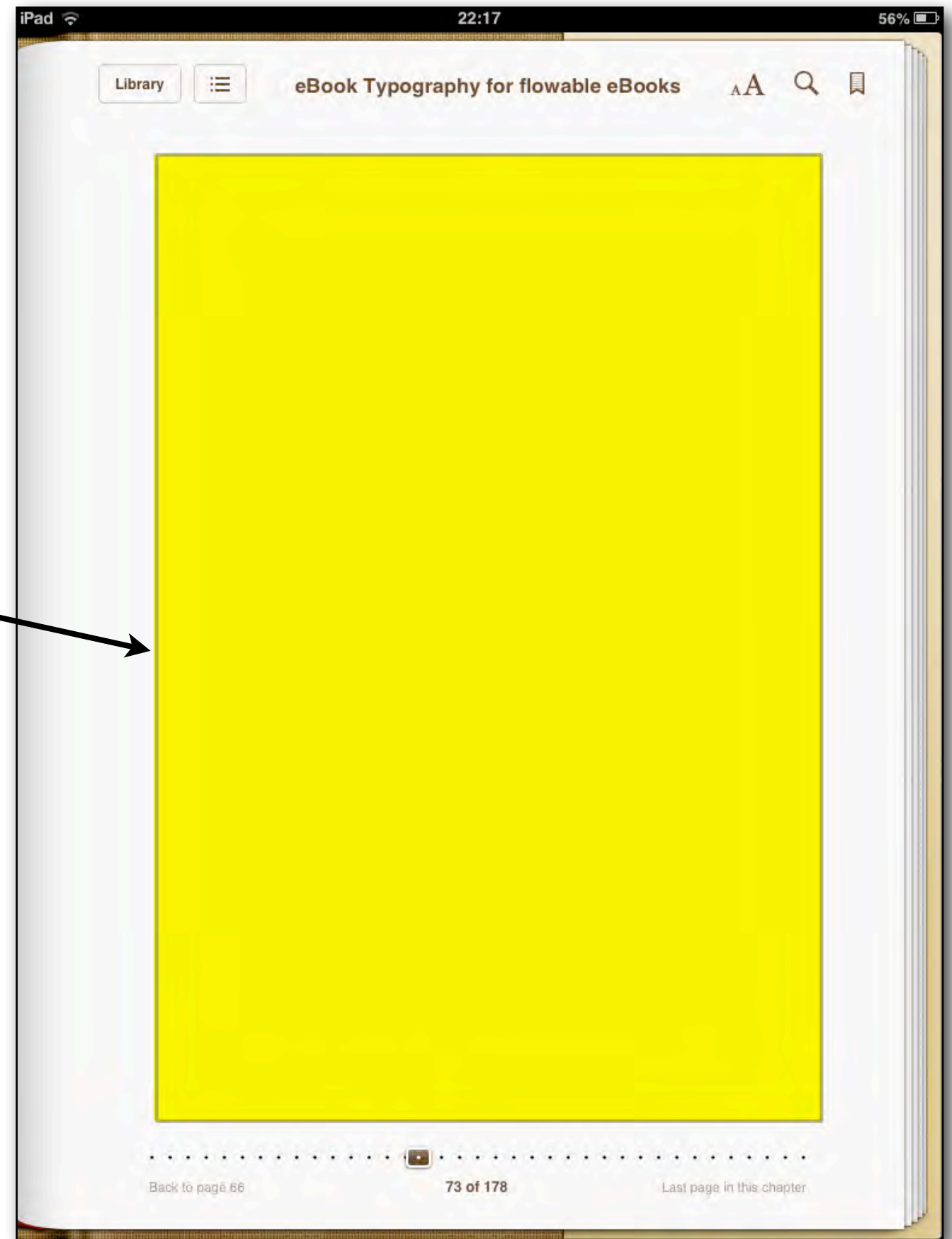
The Page

- Device reader software has margins set
 - Or can be adjusted
- Content area is limited
- Margins can be set inside the device margins

Page space

On the iPad, only this space is available for content

Some devices have user settings for page margins



Paragraph Spacing

- Apply margins to paragraphs
- Do not add empty breaks for space
- Choose margin **or** first line indent
- Pixel values respected on font size changes
- Be generous with paragraph spacing (personal preference)

Paragraph Indicators

- First line indent
 - Don't be too subtle
- No indent on first paragraph after heading
- Others methods include
 - Drop caps or elevated caps
 - Don't over use!

Word Spacing

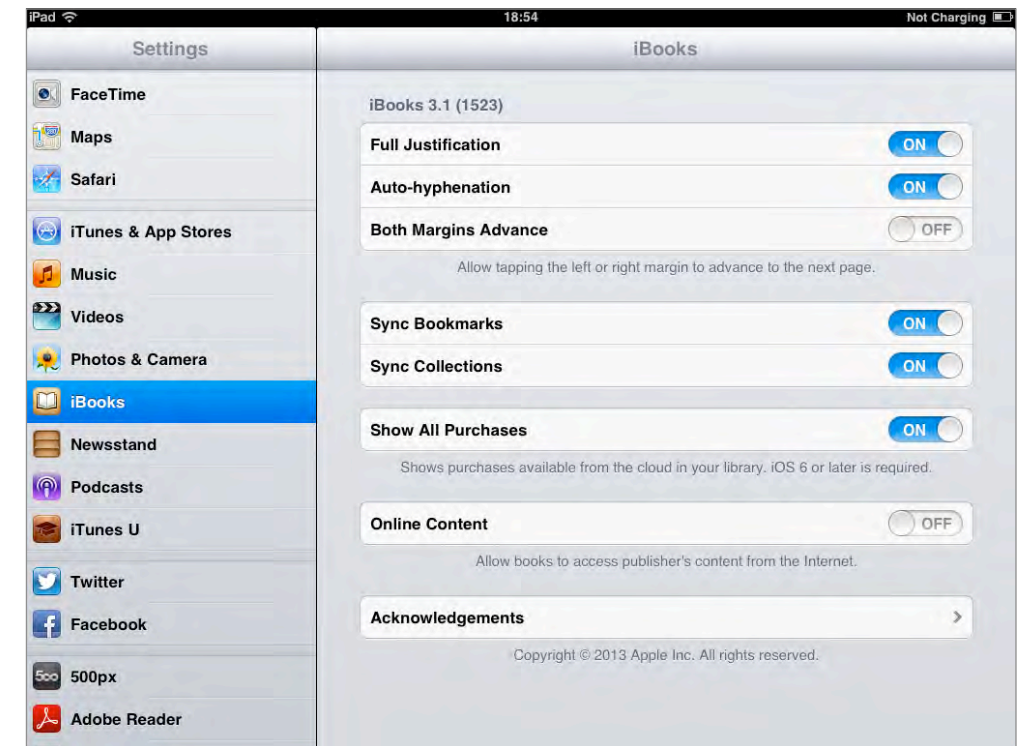
- Can be implemented in CSS but
- Only use in headings
- Justified text can produce uneven word spacing
- Use hyphenation

Text alignment

- Left aligned will produce comfortable word spacing
- `center` only for headings!
- Justified can work but not at large font size

Justified text

- iPad User can control for body text (<p>)
- Designer can turn off
 - `text-align:left` will be respected
- If using `text-align:justify` then
 - be sure to switch on hyphenation



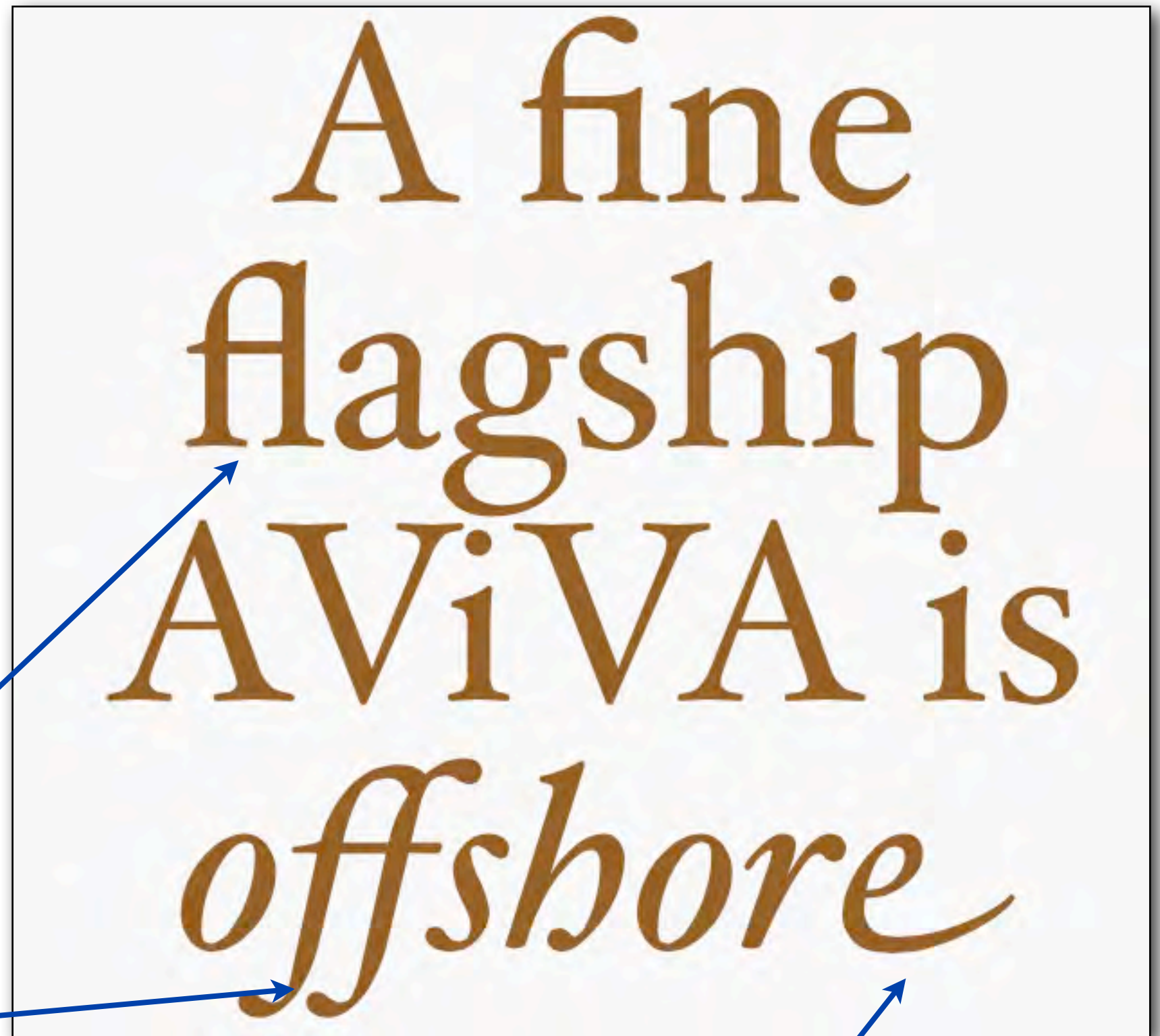
Letter spacing

- Known as tracking in InDesign
- letter-spacing in CSS
- Probably only useful in headings
- Kerning pairs in some fonts
 - Device dependant

Kerning and Ligatures

Kerning closes up
some characters

Ligatures available
in some typefaces



Finial

Poetry / Verse

- Special case because line endings should be respected
- Will break when font enlarged so:
 - Make each line a paragraph with:
 - negative text-indent
- different paragraph styles to set complex indents

Go and catch a falling star,
Get with child a mandrake root,
Tell me where all past years are,
Or who cleft the devil's foot,
Teach me to hear mermaids singing,
Or to keep off envy's stinging,
And find
What wind
Serves to advance an honest mind.

Go and catch a falling star,
Get with child a mandrake
root,
Tell me where all past years are,
Or who cleft the devil's foot,
Teach me to hear mermaids
singing,
Or to keep off envy's stinging,
And find
What wind
Serves to advance an honest
mind.

Each line is a paragraph
styled with negative first
line indent

`text-indent:-30px;`
`padding-left:60px;`



Embellishments

Colour

- Use in headings
- reverse out of solid colour
- highlight paragraphs with background
- colour in borders
- **contrast for readability**
- test on black and white devices

Borders

- Better than underline
- Rules from **InDesign** do not export as borders
- Horizontal rules can sub-divide content
- Can be implemented within HTML (`<hr>`)
- Or use bottom-border in CSS

Typographic Swashes

Some fonts have alternates
swashes

Invoke with CSS

Device dependant



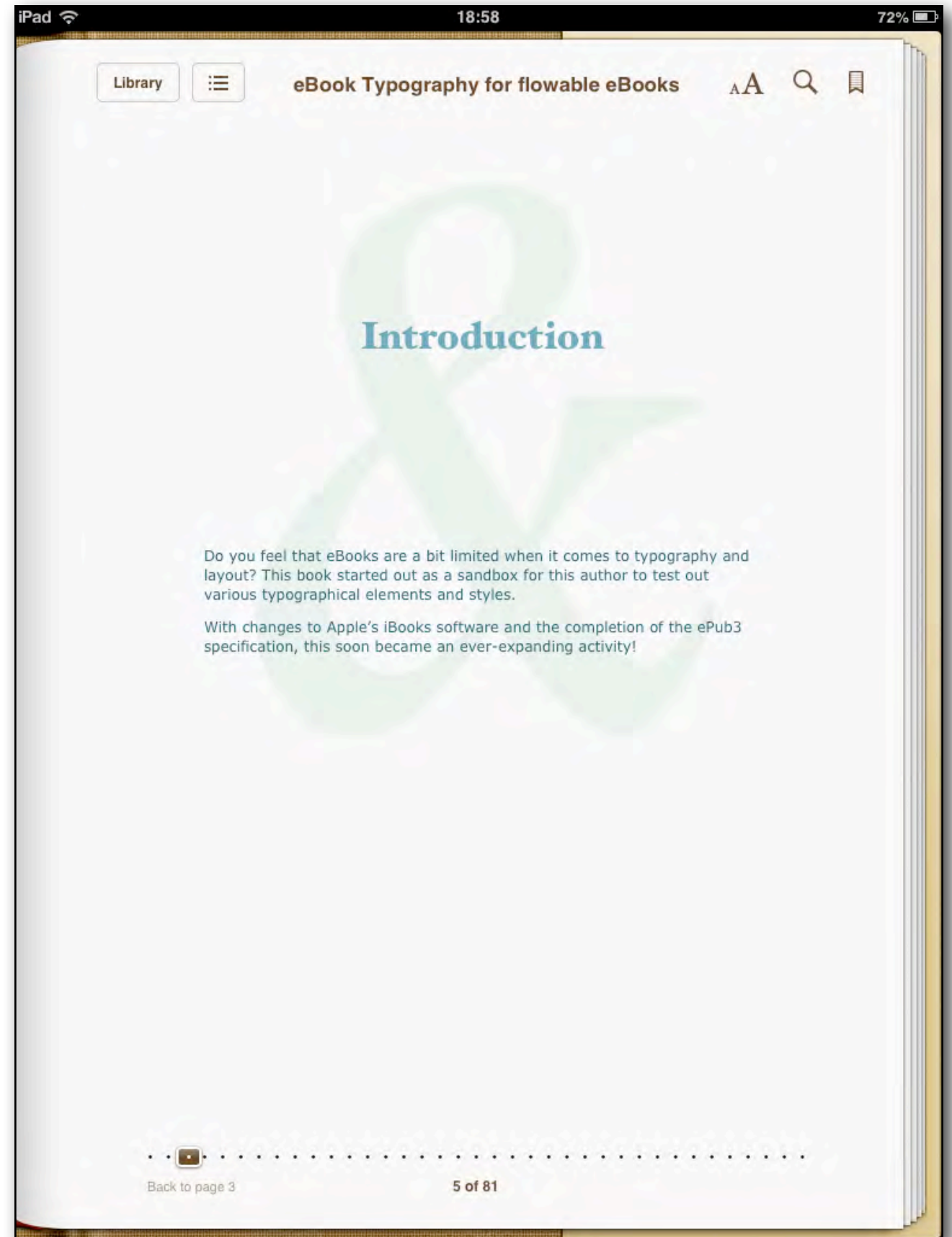
4

Headings

Chapter Headings

- Start on new page
- Consider devoting whole page
- Decorate page with image
- Background images through CSS

Whole page Chapter heading





**Landscape
or
Portrait**

Orientation

- On the iPad the page is portrait but
- Landscape view invokes side by side
- Some devices just give wide page in landscape view
- use metadata in ePUB3 to lock orientation

Landscape

- Double page spread
- Left or right is unknown (currently)
- Future support for forcing start on left or right
- Line text up across the spine
- Orientation can be locked

6 Columns

Can we use Columns?

- InDesign to ePub will not export column structure
- Columns can be set in CSS
- But using columns over more than one page is a broken idea!

Columns Limitations

Columns can be used for short
texts if doesn't cross page
breaks not all devices will
support columns

Robinson Crusoe

I was born in the year 1632, in the city of York, of a good family, though not of that country, my father being a foreigner of Bremen, who settled first at Hull. He got a good estate by merchandise, and leaving off his trade, lived afterwards at York, from whence he had married my mother, whose relations were

named Robinson, a very good family in that country, and from whom I was called Robinson Kreutznaer; but, by the usual corruption of words in England, we are now called – nay we call ourselves and write our name – Crusoe; and so my companions always called me.

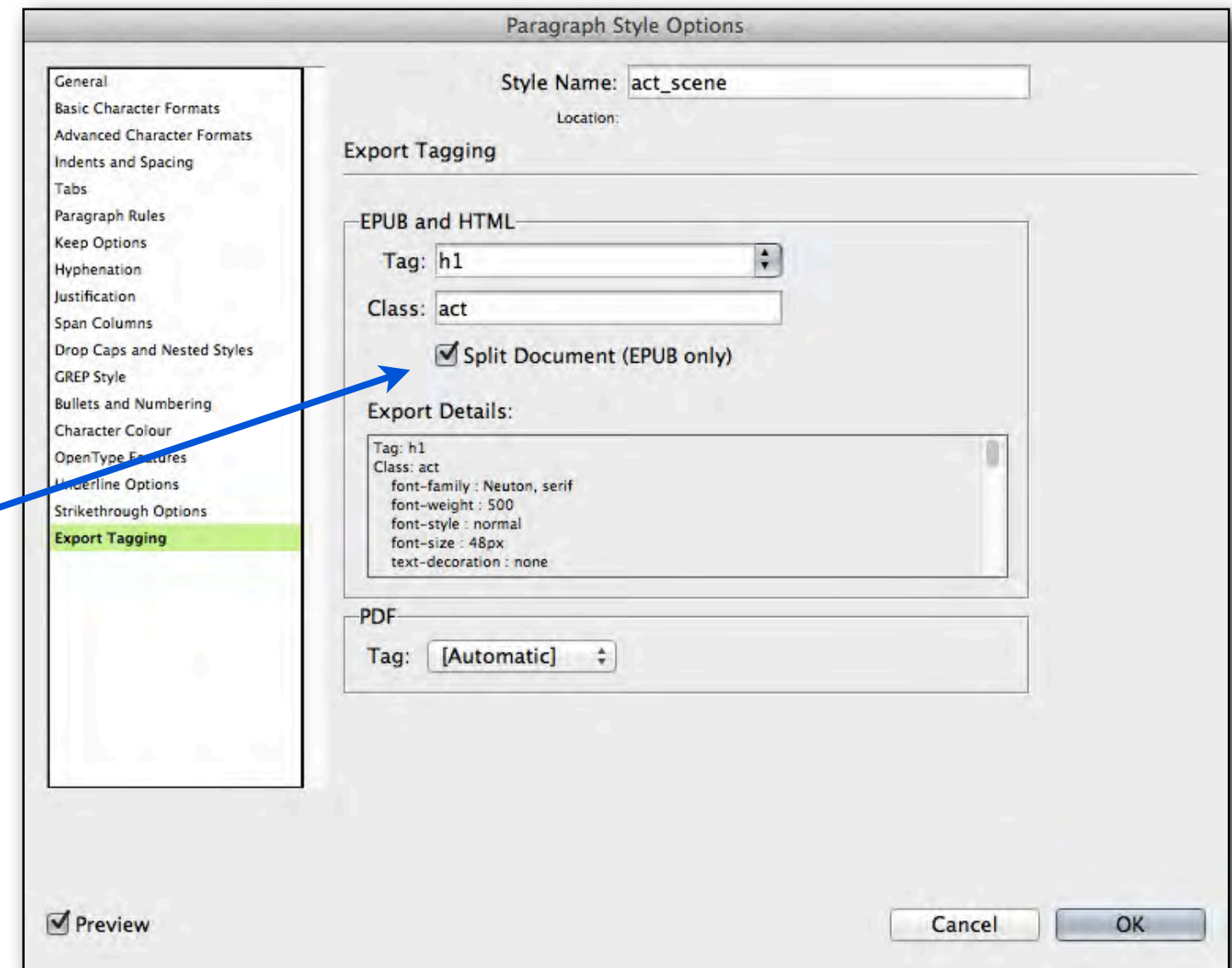
I had two elder brothers, one of whom was lieutenant-colonel to an English regiment of foot in Flanders, formerly commanded by the famous Colonel Lockhart, and was killed at the battle near Dunkirk against the Spaniards. What became of my second brother I never knew, any more than my father or mother knew what became of me.



Controlling the Page

The Page Break

- Dividing the ePub into discreet HTML files
- Use InDesign
Split Document (EPUB only)
switch for headings



Page Start

- Use CSS on subheadings

`page-break-before:always`

or

- CSS on paragraph before:

`page-break-after:always`

Page break within elements

- To avoid page breaks within blocks use `page-break-inside:avoid`
- but this is NOT rigidly applied
- So accept that some elements will cross over page breaks

The CSS used to display the John Donne Poem

```

section.donne p {
  color: #8D322F;
  font-family : Cochin, serif;
  /* set the font size */
  font-size:1.3em;
  /* and the line height (leading) */
  line-height:0.9;
  /* put a margin to the top of each of
the lines */
  /* with all other margins set to zero
*/
  margin:5px 0 0 0;
  /* put padding, rather than margin to
the left */
  /* so that a subtle bottom border
spans the whole line */
  padding-left:45px;
  /* a negative indent then moves the
line when it wraps */
  text-indent:-26px;
  /* put some padding at the bottom and
then a subtle dotted border */
  /* to really identify the line of the
poem */
  padding-bottom:5px;
  border-bottom:1px dotted #dcb7b7;
}

section.donne p.alternate {
  /* alternate lines get a bigger padding
and negative indent */
  padding-left:70px;
  text-indent:-30px;
}

```

```

}
section.donne p.ultima {
  /* final 2 lines get even more padding */
  padding-left:100px;
}

section.donne p.firstlineverse {
  /* first line in the verse gets special
treatment */
  margin-top:40px;
  padding-top:5px;
  border-top:1px dotted #dcb7b7;
}

section.donne span.firstword {
  /* first word needs span to get the small
caps */
  font-weight:bold;
  font-variant:small-caps;
}

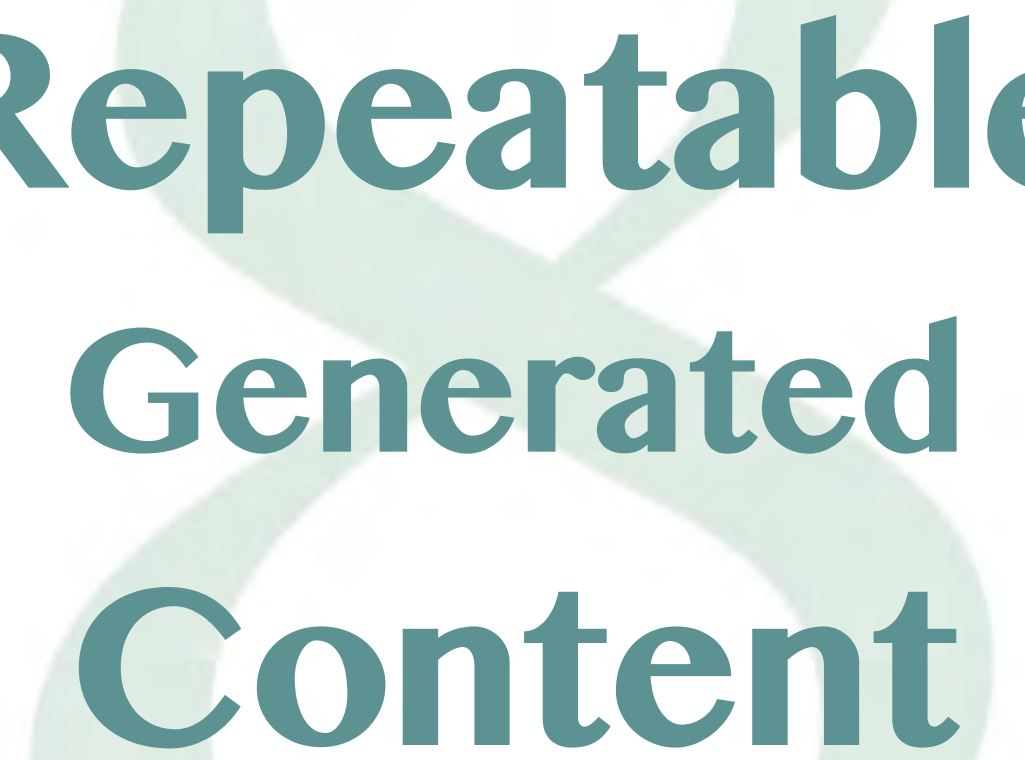
```

Left or right

- Currently NO support for:
`page-break-after:right`
- Currently limited support for:
`properties='page-spread-right'` in OPF

Widows and Orphans

- end of paragraph widows can be controlled by adding non-breaking space between last 2 or 3 words or by using javascript
- end of page widows / start of page orphans cannot be controlled although:
- there are CSS rules available but not supported yet



**Repeatable
Generated
Content**

Adding text through CSS

decorative items can be added to headings or section endings

❖ *The Secret of the Island* - Jules Verne ❖

The colonists then reached the stern of the brig—the part formerly surmounted by the poop. It was there that, following Ayrton's directions, they must look for the powder-magazine. Cyrus Harding thought that it had not exploded; that it was possible some barrels might be saved, and that the powder, which is usually enclosed in metal coverings, might not have suffered from contact with the water.

This, in fact, was just what had happened. They extricated from amongst a large number of shot twenty barrels, the insides of which were lined with copper. Pencroft was convinced by the evidence of his own eyes that the destruction of the *Speedy* could not be attributed to an explosion. That part of the hull in which the magazine was situated was, moreover, that which had suffered least.

"It may be so," said the obstinate sailor; "but as to a rock, there is not one in the channel!"

"Then, how did it happen?" asked Herbert.

"I don't know," answered Pencroft, "Captain Harding doesn't know, and nobody knows or ever will know!"

Several hours had passed during these researches, and the tide began to flow. Work must be suspended for the present. There was no fear of the brig being carried away by the sea, for she was already fixed as firmly as if moored by her anchors.



❖ Generated content in the headings ❖

You will notice that I have also added some dingbat characters to the headings for the above sample (as well as the heading here).

```
h3::after, h3::before {
  font-family: ZapfDingbatsITC;
  content: '❖';
  font-weight: normal;
  font-size: 1.4em;
  vertical-align: text-bottom;
  color: #E2ECF1;
}
h3::before {
  margin-right: .5em;
}
h3::after {
  margin-left: .5em;
}
```



Tables

Tables in Content

- Small tables for data
- Will enlarge on double tap for Apple iOS - iBooks

Planet	Distance From Sun (miles)	Diameter (miles)	Year Length (days)	Day Length (days)
Mercury	36,000,000	3,030	88	58
Venus	67,000,000	7,520	225	225
Earth	93,000,000	7,925	365	1
Mars	142,000,000	4,210	687	1
Jupiter	484,000,000	88,730	4,344	0.4
Saturn	888,000,000	74,975	10,768	0.4
Uranus	1,800,000,000	31,760	30,660	0.7
Neptune	2,800,000,000	30,600	60,150	0.65
Pluto	3,600,000,000	1,410	90,520	0.25

Tables outside Flow

- Large tables can be in separate document
- Hyperlinked from within text
- iOS allows for non-linear
- Only iBooks on iPad support non-linear as popup window

Asides, Footnotes and Hyperlinks

Supplementary content

- sidebar content can float left or right
- Be aware though that spine maybe either side
- Margins are not available so space is limited
- use `<aside>` tag in HTML
 - may not be fully supported

Floating the Aside element

The **aside** element represents a section of a page that consists of content that is tangentially related to the content around the aside element, and which could be considered separate from that content. Such sections are often represented as sidebars in printed typography.

So in a flowable eBook to put a block of content outside the normal flow of text, we will need to make use of the CSS rule 'float' to move the block to the left or the right of the content that follows it..

If this information is a block of text then we could use the HTML tag <div> to surround this content and then use CSS to float this left or right. If we are prepared to move with the times and use the latest iteration of HTML5 (used in the ePub3 format), then we can use the tag <aside>. In HTML5 the tag <aside> had been created just for this purpose. You

can see this definition of the aside tag from the W3C web site in a floating block right here.

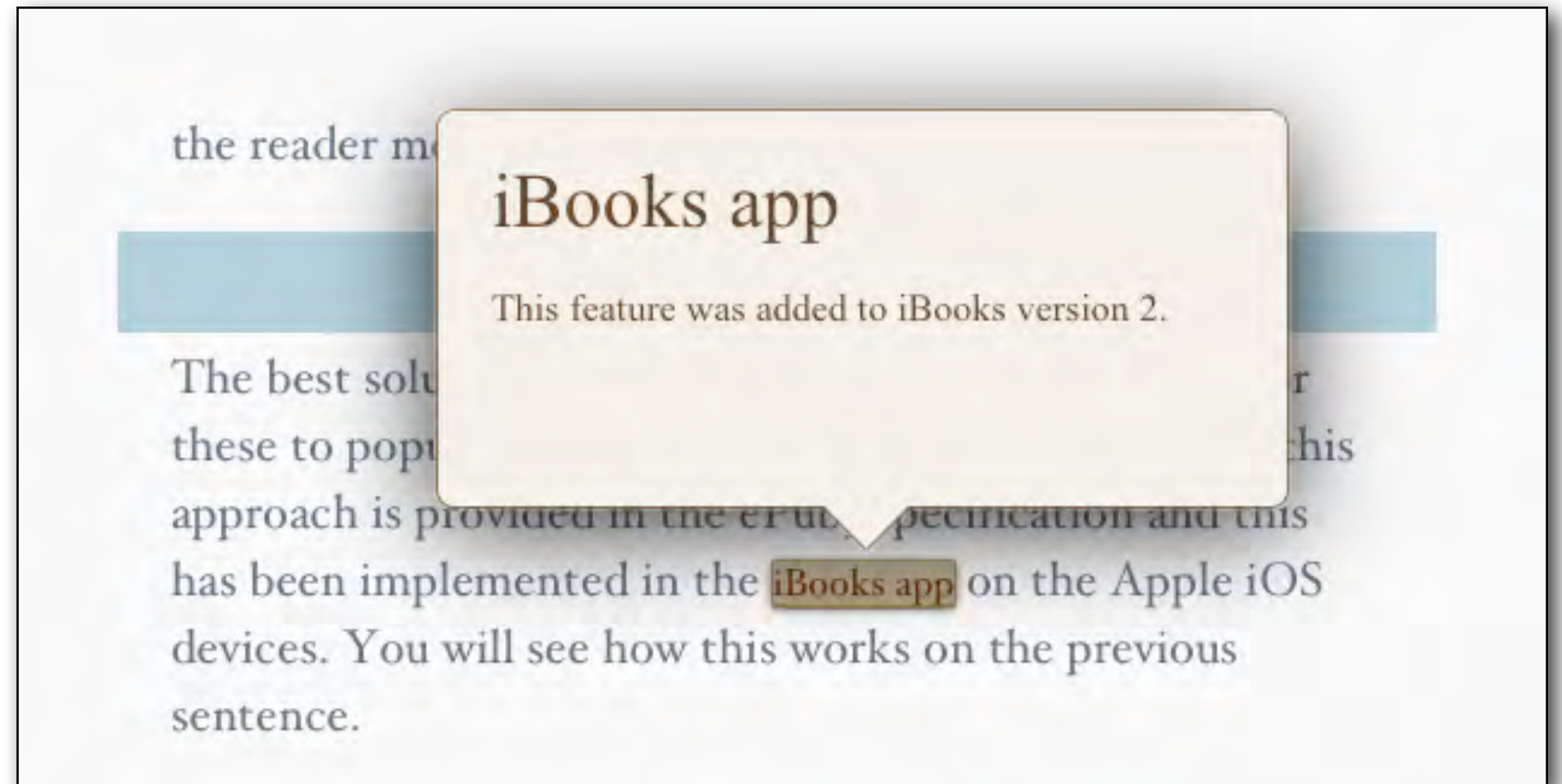
Limitations: Be aware that if you plan to convert your book to the MOBI format for the basic Kindle (ie not the Kindle Fire that supports the KF8 format), then the <aside> tag will not be recognised and may not display.

For future proofing and following ePub3 specifications use the semantically correct:

```
<aside epub:type="sidebar">
```

Pop-ups

- ePUB3 supports notes and glossaries but
- only supported on iOS/iBooks currently



Non-linear resources

- separate HTML documents can be included
- but as non-linear:

```
<itemref idref 'darwin' linear='no'/>
```

- In iBooks this opens new window

Footnotes and references

- Can be at the end of the chapter/section or
- in a separate page
- main issue is going back but:
 - eReader software may have 'go back' method

11

Special Effects

Shadows

- InDesign shadows/blends and glows won't translate so
- use CSS `text-shadow`
- blocks can have shadows through CSS

Of course, you would not apply any shadows to body text (would you?), but for a heading, there may be a good reason. Here follows, then a heading using the Alegreya font in italic.

I am a heading tagged as such (with an `<h3>`), but with an extra rule to provide a shadow.

Rather than apply the shadow to the letters, you might prefer to apply the shadow to the block.

I am a heading tagged as such (with an `<h3>`), but with an extra rule to provide a shadow on the box.

Backgrounds

- whole page (body) cannot have a background but a child block (`<div>`, `<section>`, `<header>`) can
- use colour or tint in background to paragraph or heading
- objects can have opacity with CSS

Backgrounds

It is not possible to add a background colour or image to the body of the pages in the book - as you would on a web page. The iBooks app will ignore backgrounds set on the `<body>` element. However, it is possible to set a background colour (or image), on a block within the page. You can see the examples of background colours in the previous pages, where I demonstrate shadows, rounded corners and reversed text.

It is also possible to use **images** in the backgrounds of blocks and you can see this in the following quote from the 'Scottish' play.

“ Round about the cauldron go;
In the poison'd entrails throw.
Toad, that under cold stone
Days and nights has thirty-one
Swelter'd venom sleeping got,
Boil thou first i' the charmed pot. ”

CSS3 allows for blends in backgrounds and this is

Drop Caps

drop caps or elevated caps for first letter can be translated from InDesign but may need some adjustment in CSS

eBook Typography for flowable eBooks

Two households, both alike in dignity,
In fair Verona, where we lay our scene,
From ancient grudge break to new mutiny,
Where civil blood makes civil hands unclean.

And another example from Darwin's
The Origin of Species

When on board H.M.S. Beagle, as naturalist, I was much struck with certain facts in the distribution of the organic beings inhabiting South America, and in the geological relations of the present to the past inhabitants of that continent. These facts, as will be seen in the latter chapters

Styling the first line in paragraph

don't use character style in InDesign because this is not dynamic enough

Use CSS `p:first-line`

Styling the first line in a paragraph

OFTEN A BOOK DESIGNER WILL STYLE THE FIRST line in a chapter to be in a different style. Small caps seems to be a tradition in some earlier texts.

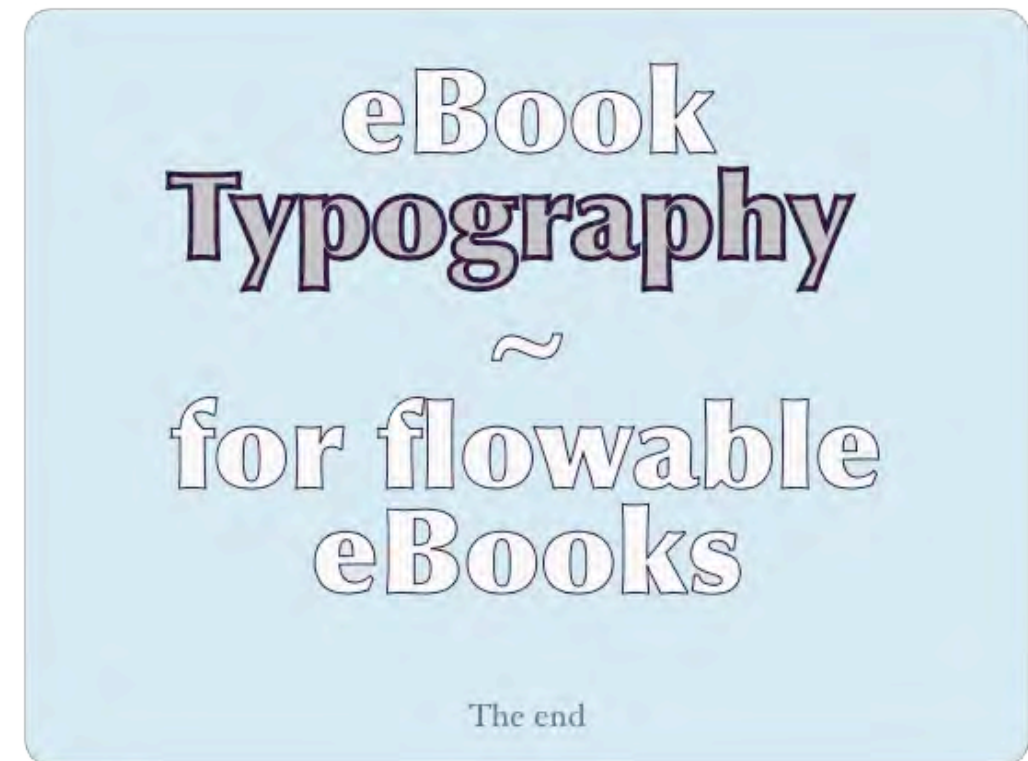
InDesign, does **not** have a simple way to style the first line. You could use nested styles, but this offers no option to dynamically style the first line (in flowable books, this line length will change with different font size choices). CSS does include the potential to target the first line like this:

Outlines

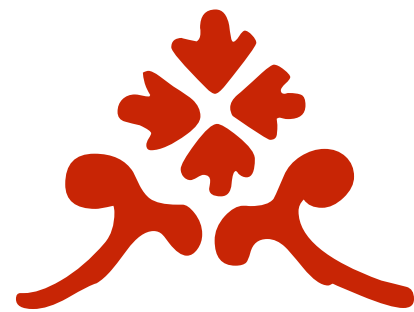
- Strokes on letterforms will **not** translate from InDesign

- use CSS:

`text-stroke-color`
`text-stroke-width`



Some Further Notes



Fixed-Layout

- The Typography and styling in a fixed-layout eBook is not changeable by the user so:
- Designers have more control but:
- Each page becomes a single XHTML document

InDesign

- Many designers are using this page-layout tool
- Each release sees improvements in ePUB export
- Designers need to change **some** habits

Content Flow

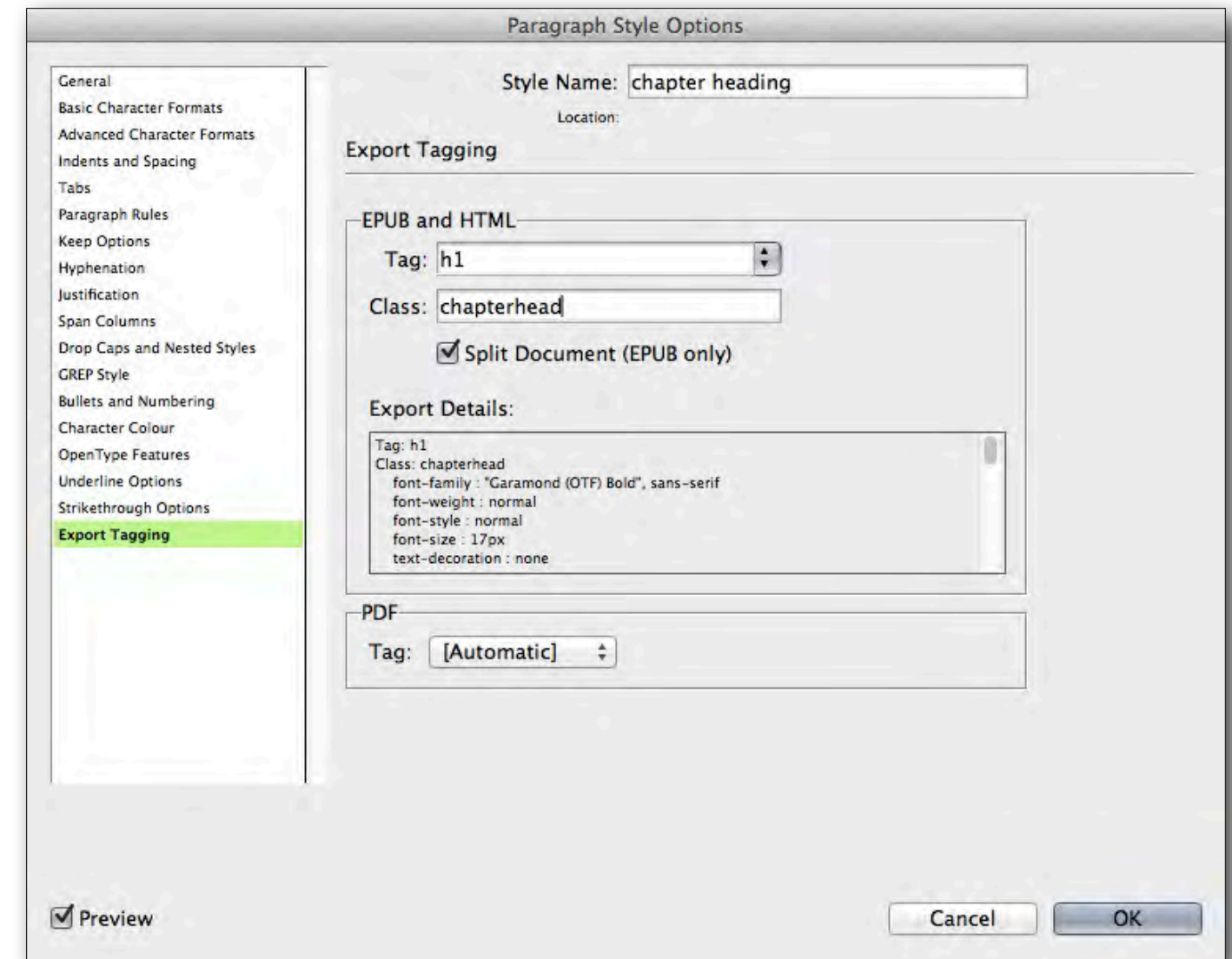
- for **reflowable** eBooks all text should be threaded or
- Use **articles** to order content or
- Use **XML structure** to order content

Images

- Group with caption
- Must be anchored in appropriate text location
- When exporting use **relative to page**

Styles

- Use heading styles to ‘split ePUB’
- All styles (paragraph and character) **must** be given **HTML** tag and **class** name
- tag headings with **h1,h2,h3** etc



User Tips

- Only use styles / no style over-rides
- Show hidden characters
- Remove blank lines
- Auto-build **TOC** from heading styles
- Master page items are ignored
- Use ‘book’ panel **BUT** you cannot further split ePUB



export to ePUB

- Many typographic details are ignored:
 - Kerning and Ligatures
 - Tracking and Scaling
 - Baseline shift
 - Balance ragged lines
 - Hyphenation control
 - Rotation

Although →

Post - Edit CSS

text-rendering: optimizeLegibility;

word-spacing

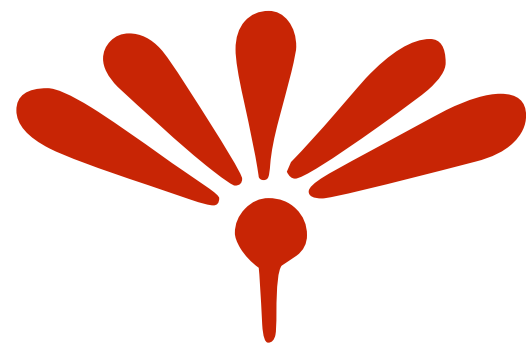
letter-spacing

text-transform

transform: rotate(90deg);

Search / Replace

is your best friend



GREP is your better friend

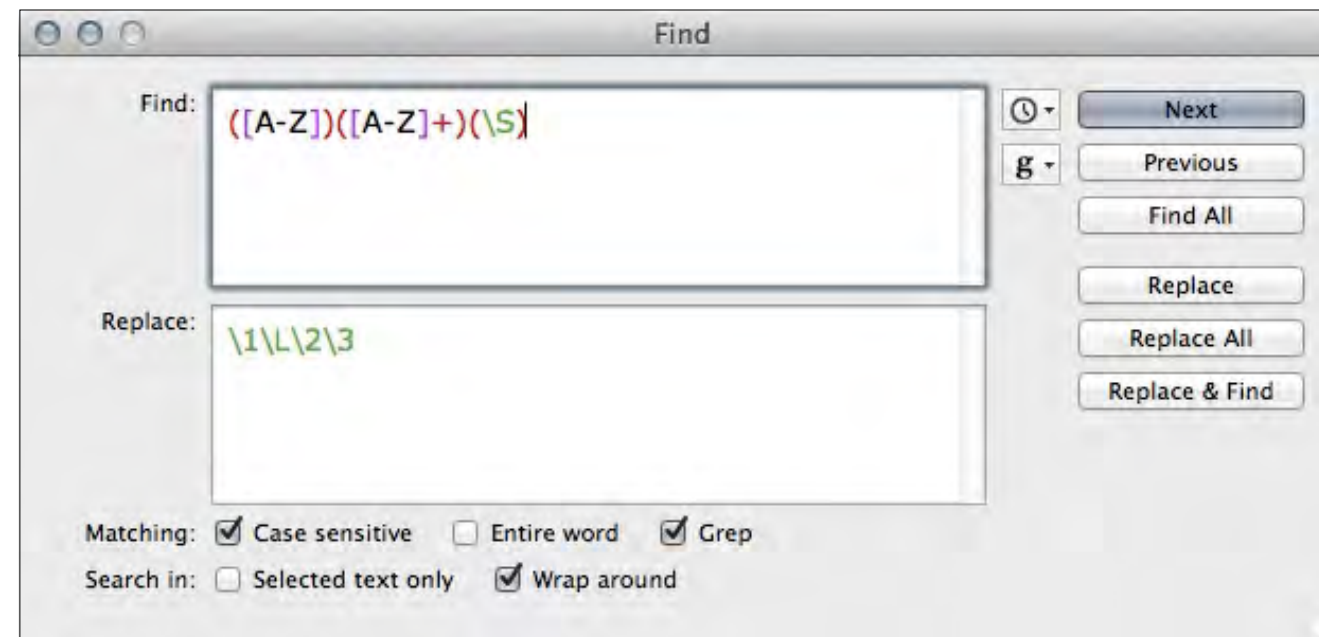
Find words in uppercase

`([A-Z])([A-Z]+)(\S)`

replace to title case

`\1\L\2\3`

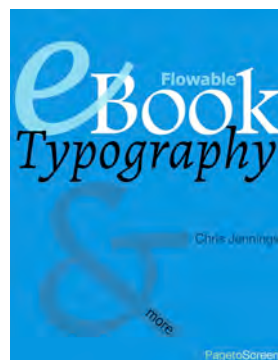
GREP is **pattern matching** and is in **InDesign** too!





Thank You

Chris Jennings 2013



www.pagetoscreen.net

[@pageboy](#)