# Why Justified Text Hurts Readability

Typography choices that impact comprehension

### What is Justified Text?

Justified text aligns both the left and right edges of text blocks, creating neat, uniform columns. To achieve this alignment, word processing and web browsers stretch or compress spacing between words and letters, making each line exactly the same width.

While justified text can look clean and formal (like in newspapers or books), it often creates significant readability problems, especially on screens.

# **The Readability Problems**

### **Uneven Word Spacing**

To make lines the same length, justified text creates irregular gaps between words. Some lines have normal spacing while others have **awkward ly stretched gaps** that disrupt reading flow.

When readers encounter inconsistent spacing, their eyes struggle to maintain smooth reading rhythm. The brain has to work harder to parse where one word ends and another begins.

# **Rivers of White Space**

Poor justification creates "rivers" - vertical streams of white space running through paragraphs where wide word gaps align across multiple lines. These visual distractions pull attention away from the actual content.

# **Hyphenation Problems**

To avoid extremely stretched spacing, justified text often breaks words across lines with hyphens. Exces-sive hyphen-ation makes text choppy and forces readers to men-tally recon-struct broken words.

# **Reading Fatigue**

The combination of irregular spacing, rivers, and broken words increases cognitive load. Readers tire more quickly when their brains must work harder to process the visual presentation of text.

### The Research Evidence

# **Readability Studies**

Multiple studies from the 1960s through 2000s consistently show that:

- Left-aligned text is read 8-10% faster than justified text
- Comprehension scores are higher with left-aligned text
- Readers report less fatigue when reading left-aligned content

### **Eye-Tracking Research**

Rayner and Pollatsek's eye movement studies revealed that justified text causes:

- More frequent regressions (readers going back to reread)
- Longer fixation times on individual words
- Irregular saccade patterns (eye jumps between words)

### **Digital-Specific Research**

**Screen-based reading studies** show even stronger effects:

- Justified text on screens reduces reading speed by 11-16%
- Users express stronger preference for left-aligned text online
- Mobile devices show the worst justified text results due to narrow columns

## Why Screens Make It Worse

# **Limited Hyphenation Control**

Web browsers have poor hyphenation algorithms compared to professional typesetting software. This leads to more awkward line breaks and spacing issues.

#### **Narrow Column Widths**

Mobile devices and responsive design often create narrow text columns. Justified text in narrow columns produces extremely uneven spacing because there are fewer words per line to distribute.

# **Resolution and Rendering**

Digital screens render text differently than print. Subtle spacing adjustments that work in high-resolution print can become jarring gaps on screens with varying pixel densities.

#### **User Control Issues**

Readers can zoom web pages, change font sizes, or adjust browser width. Justified text that looks acceptable at one size can become unreadable when users modify their viewing preferences.

# When Justified Text Might Work

**Professional Print Design** 

High-end publications with professional typographers can manually adjust spacing, hyphenation, and

line breaks to make justified text work well.

Narrow Newspaper Columns

Traditional newspapers use justified text in very narrow columns where the spacing issues are less

noticeable and where visual uniformity serves the design.

**Legal Documents** 

Some legal and academic traditions expect justified text, though this is more about convention than

readability.

**Very Wide Columns** 

In extremely wide text blocks, justification can help prevent lines from looking too "loose," though this

is rare in modern web design.

**Better Typography Alternatives** 

Left-Aligned Text (Recommended)

Creates consistent word spacing, natural reading rhythm, and works well across all devices and screen

sizes. This is the web standard for good reason.

**Optimized Line Length** 

Focus on proper line length (45-75 characters) rather than justified alignment. Good line length

improves readability more than any alignment choice.

**Proper Spacing and Hierarchy** 

Use consistent line spacing, paragraph spacing, and visual hierarchy to create clean, readable layouts

without needing perfect edge alignment.

**Responsive Typography** 

Design text that adapts well to different screen sizes and user preferences rather than forcing rigid

alignment across all contexts.

**CSS and Technical Considerations** 

**Text-Align: Justify Problems** 

The CSS (text-align: justify) property has limited control over spacing quality. It often produces worse results than professional typesetting software.

#### **Modern CSS Solutions**

Newer CSS properties like (text-justify) and (hyphens) can help, but browser support varies and results are still inconsistent across devices.

## **Performance Impact**

Justified text requires more processing to calculate spacing, which can impact performance on lower-powered devices.

# **Testing Your Typography**

## The Reading Test

Have real users read substantial blocks of your text. Time them and ask about comprehension and comfort. Justified text typically performs worse.

#### The Zoom Test

Test how your text looks when users zoom to 150% or 200%. Justified text often breaks down completely at larger sizes.

#### The Mobile Test

View your justified text on various mobile devices. The narrow screens usually reveal serious spacing problems.

# The Accessibility Test

Consider users with dyslexia, visual processing difficulties, or reading challenges. Justified text creates additional barriers for these users.

# **Common Justification Myths**

### "It Looks More Professional"

Professional appearance comes from good typography, hierarchy, and spacing - not from forcing text into rigid boxes. Well-designed left-aligned text looks more professional than poorly-justified text.

# "It Makes Better Use of Space"

The space "saved" by justification is minimal and comes at the cost of readability. Better content strategy and layout design address space concerns more effectively.

## "Readers Expect It"

Most web users expect and prefer left-aligned text. Justified text feels outdated and formal in digital contexts.

# "It's What Newspapers Do"

Newspapers use justified text for printing efficiency and visual uniformity in very specific column widths. These constraints don't apply to digital content.

## **The Bottom Line**

Justified text prioritizes visual appearance over reading experience. While it might look "neat" to designers, it consistently makes content harder to read and understand.

**Good typography serves readers, not designers.** The goal is communication, not perfect edge alignment.

Left-aligned text has become the web standard because it works better for users across all devices, screen sizes, and reading contexts.

**Ask yourself:** Is justified text making your content easier to read, or just making your layout look more rigid?

Remember: Typography is invisible when it's working well. Readers should focus on your content, not struggle with how it's presented.