To Scroll or Not to Scroll: The Age-old Question

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ABSTRACT

In Web design, there is confusion over the "page fold" concept and the significance of keeping the most important information within a webpage's initial viewable area. This is most significant in web delivered course material. This poster examines the changing views about the sanctity of the "above the fold" concept.

Categories and Subject Descriptors

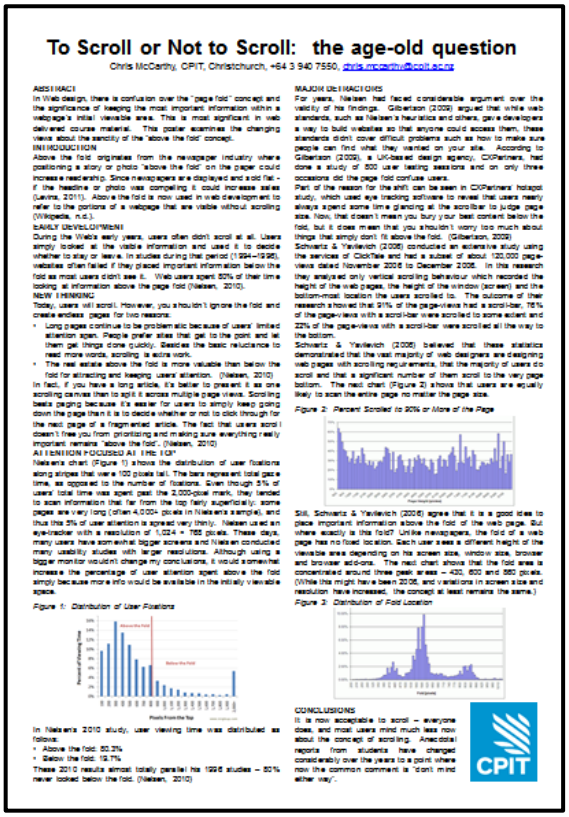
K.3.1 [**Computers and Education]**: Computer Uses in Education

General Terms

Performance, Design, and Human Factors.

Keywords

Above the fold, page fold, scrolling.



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In Web design, there is confusion over the "page fold" concept and the significance of keeping the most important information within a webpage's initial viewable area. This is most significant in web delivered course material. This poster examines the changing views about the sanctity of the "above the fold" concept.

INTRODUCTION

Above the fold originates from the newspaper industry where positioning a story or photo "above the fold" on the paper could increase readership. Since newspapers are displayed and sold flat - if the headline or photo was compelling it could increase sales (Levine, 2011). Above the fold is now used in web development to refer to the portions of a webpage that are visible without scrolling (Wikipedia, n.d.).

EARLY DEVELOPMENT

During the Web's early years, users often didn't scroll at all. Users simply looked at the visible information and used it to decide whether to stay or leave. In studies during that period (1994–1996), websites often failed if they placed important information below the fold as most users didn't see it. Web users spent 80% of their time looking at information above the page fold (Nielsen, 2010).

NEW THINKING

Today, users will scroll. However, you shouldn't ignore the fold and create endless pages for two reasons:

- Long pages continue to be problematic because of users' limited attention span. People prefer sites that get to the point and let them get things done quickly. Besides the basic reluctance to read more words, scrolling is extra work.
- The real estate above the fold is more valuable than below the fold for attracting and keeping users' attention. (Nielsen, 2010)

In fact, if you have a long article, it's better to present it as one scrolling canvas than to split it across multiple page views. Scrolling beats paging because it's easier for users to simply keep going down the page than it is to decide whether or not to click through for the next page of a fragmented article. The fact that users scroll doesn't free you from prioritizing and making sure everything really important remains "above the fold". (Nielsen, 2010)

ATTENTION FOCUSED AT THE TOP

Nielsen's chart (Figure 1) shows the distribution of user fixations along stripes that were 100 pixels tall. The bars represent total gaze time, as opposed to the number of fixations. Even though 5% of users' total time was spent past the 2,000-pixel mark, they tended to scan information that far from the top fairly superficially: some pages are very long (often 4,000+ pixels in Nielsen's sample), and thus this 5% of user attention is spread very thinly. Nielsen used an eye-tracker with a resolution of 1,024 × 768 pixels. These days, many users have somewhat bigger screens and Nielsen conducted many usability studies with larger resolutions. Although using a bigger monitor wouldn't change my conclusions, it would somewhat increase the percentage of user attention spent above the fold simply because more info would be available in the initially viewable space.

Figure 1: Distribution of User Fixations

In Nielsen's 2010 study, user viewing time was distributed as follows:

- Above the fold: 80.3%
- Below the fold: 19.7%

These 2010 results almost totally parallel his 1998 studies – 80% never looked below the fold. (Nielsen, 2010)

MAJOR DEVIATIONS

For years, Nielsen had faced considerable argument over the validity of his findings. Gibertson (2009) argued that while web standards, such as Nielsen's heuristics and others, gave developers a way to build websites so that anyone could access them, these standards didn't cover difficult problems such as how to make sure people can find what they wanted on your site. According to Gibertson (2009), a UK-based design agency, CXPartners, had done a study of 500 user testing sessions and on only three occasions did the page fold confuse users.

Part of the reason for the shift can be seen in CXPartners' hotspot study, which used eye tracking software to reveal that users nearly always spend some time glancing at the scrollbar to judge page size. Now, that doesn't mean you bury your best content below the fold, but it does mean that you shouldn't worry too much about things that simply don't fit above the fold. (Gibertson, 2009)

Schwartz & Yevilevich (2008) conducted an extensive study using the services of ClickTale and had a subset of about 120,000 page-views dated November 2008 to December 2008. In this research they analyzed only vertical scrolling behaviour which recorded the height of the web pages, the height of the window (screen) and the bottom-most location the users scrolled to. The outcome of their research showed that 91% of the page-views had a scroll-bar, 76% of the page-views with a scroll-bar were scrolled to some extent and 22% of the page-views with a scroll-bar were scrolled all the way to the bottom.

Schwartz & Yevilevich (2008) believed that these statistics demonstrated that the vast majority of web designers are designing web pages with scrolling requirements, that the majority of users do scroll and that a significant number of them scroll to the very page bottom. The next chart (Figure 2) shows that users are equally likely to scan the entire page no matter the page size.

Figure 2: Percent Scrolled to 90% or More of the Page

Still, Schwartz & Yevilevich (2008) agree that it is a good idea to place important information above the fold of the web page. But where exactly is this fold? Unlike newspapers, the fold of a web page has no fixed location. Each user sees a different height of the viewable area depending on his screen size, window size, browser and browser add-ons. The next chart shows that the fold area is concentrated around three peak areas – 420, 600 and 860 pixels. (While this might have been 2008, and variations in screen size and resolution have increased, the concept at least remains the same.)

Figure 3: Distribution of Fold Location

CONCLUSIONS

It is now acceptable to scroll – everyone does, and most users mind much less now about the concept of scrolling. Anecdotal reports from students have changed considerably over the years to a point where now the common comment is "don't mind either way".

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1. INTRODUCTION

Above the fold originates from the newspaper industry where positioning a story or photo "above the fold" on the paper could increase readership. Since newspapers are displayed and sold flat - if the headline or photo was compelling it could increase sales [1]. Above the fold is now used in web development to refer to the portions of a webpage that are visible without scrolling [2]

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During the Web's early years, users often didn't scroll at all. Users simply looked at the visible information and used it to decide whether to stay or leave. In studies during that period (1994–1996), websites often failed if they placed important information below the fold as most users didn't see it. Web users spent 80% of their time looking at information above the page fold [3].

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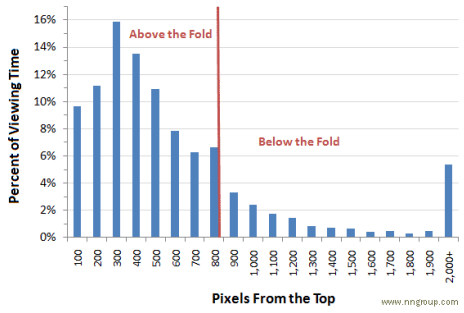

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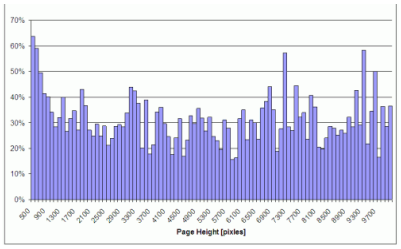

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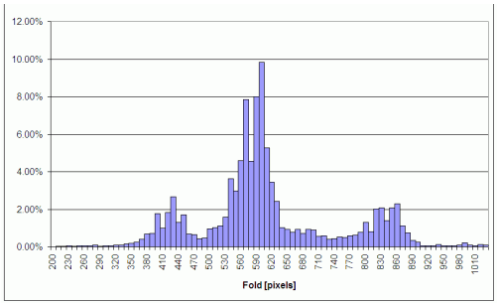

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7. REFERENCES

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