## of Infernef Typography

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Munac ospitato TOPPE Some Att the beginning, there was plaintext. Typography was monospaced: margins were were always ragged, fonts were fixed pitch and fixed size. Despite the limitations, plaintext nonetheless developed conventions of its own, substituting judicious use of "punctuation", CAPITALIZATION, and s p a c i n g for all the typographic niceties available for the press. ASCII Art flourished in signatures, diagraphic niceties available for the press. ASCII Art flourished in signatures, diagraphic istservs, outside the technologically richer HTML world of the Veb. Typography was monospaced: margins were niceties available for the press. ASCII Art *f*lourished in signatures, diagrams, even artwork. It still retains its hold

Α

History

### HyperText Markup Language

HTML began as a universal shorthand that text display programs could interpret into slightly more refined displays. More fundamentally, it popularized the hyperlink, which connected all the myriad HTML pages into a World-Wide Web. Version 2 codified the language as a set of tags for marking page structure into plain text. One viewing program, Mosaic, introduced a tag to embed images.

> And thus began the era of the Browser Wars.



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# The Browser Wars

With web browsers vying for supremacy, the Web exploded into color. HTML was extended to allow font changes, background textures, and rudimentary table layout. As the Internet spurted into the popular consciousness, the Web became saturated with dynamism, clashing colors, and navigational confusion. These were the Dark Ages of web design, when, unfettered from the simplicity of early HTML and unguided by the aesthetics of design, the technical avant guard quickly filled the demand for sites with uncoordinated visual design and incoherent coding. Ignoring and ignorant of the language's principle of encoding output-independent structure, page authors abused HTML, twisting its tags to serve as purely presentational formatting instructions--a coding style Enlightenment critics would later call "tag soup".



#### MADE WITH CASCADING STYLE SHEETS

Guestbook

In the middle of this, the W<sub>3</sub>C introduced Cascading Style Sheets, a true formatting language that would let authors simplify their HTML to pure expression of the document's content and structure, specifying the formatting in a separate, specialized Style Sheet. Once the technology caught on, CSS would revolutionize web design -- allowing a cleaner alternative to the mess of coding conventions and giving finer typographic control to the more discriminate designers rising through the now healthily-filled field.

UNDER

At the end of this era, Microsoft Internet Explorer had stifled the browser competition with over 90% of the market share. Man designers forgot there was anyone else to support. The popularity of Netscape Navigator, their main contender, trickled to almost nothing

> Microsoft Internet Explorer



Calling for an end to the tangled mess of existing coding conventions, web design critics advocated two principles of page coding: Separation of Content and Style, and Standards Compliance.

Where before CSS, the formatting code for a web page was mashed together with the structural tags, the new method of web design was to separate it out into a style sheet. The formatting was linked to the content through the structure: text marked as a header in the HTML received header styling from the header-styling rule in the CSS. Page code became more readable and less verbose: it was no longer necessary to repeat the gamut of paragraph formatting rules for each paragraph in the document. The writer could concentrate on structuring his text, and the designer could focus on styling the structure. Stripped of formatting and strongly structured, the content of the HTML page could again be understood by any browser.

The cry for standards compliance was a reaction to the different and incompatible ways browsers interpreted web code. Authors poured hours into excruciating code negotiation, struggling to coax both Netscape Navigator and Microsoft Internet Explorer to present their pages properly. At the most basic level, both programs behaved the same, but the lists of individual quirks was endless. Many gave up trying to write one-version-works-in-all in favor of creating separate pages for separate browsers... or, only one version for their favored one.

For years, the interpretation HTML and CSS code had been explicitly defined in a public document issued by a standards organization, in this case the W3C. Unfortunately, neither browser manufacturers nor most page authors adhered to these specifications. In response to the current web coding mess, influential technology experts started the Web Standards movement. They worked to convince web designers and browser manufacturers to follow the rules in the specifications: to make it possible for an author to write a page once and expect it to consistently work in all programs across the industry.

At first, Microsoft made overtures to standards, tracking ahead of its competition. But once secure in its monopoly, its Windows web browser lazily imposed its own de facto interpretations, becoming an obstacle to true standards-based web sites.

Netscape's development team then scrapped its tag soup browser and reincarnated it, with the help of volunteers throughout the world, as the Mozilla open-source Web Browser. The engineers endowed its development with the goal of standards compliance and, by opening its source to free access and use, gained the help of hundreds of individual volunteers as well as several major companies. Although it would be four years before the team would release another viable browser based on this project, due to its open development, Mozilla (and its philosophy) began to work its way into web design's consciousness.

While Netscape disappeared to regroup, a Norwegian software company released its own (closed-source) web browser. Opera, like Mozilla, was designed for standardscompliance and set itself on track to compete with Microsoft Internet Explorer and Mozilla/Netscape.



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## 2003

By 2003, the Enlightenment approach had become a way of life for many web designers and was slowly gaining acceptance on major sites. On the browser front, the resistance had begun to painstakingly win back users from Microsoft while a plethora of small devices like cell phones began hooking onto the web, auguring a shift in the web's distribution of media.

In January, Apple released a new browser, Safari, based on the open-source Linux web browser Konqueror. The company hired one of the key Netscape/Mozilla developers to help the program catch up withMozilla and promised to release also the code for its improvements in the Konqueror layout engine. In June, Microsoft announced that it would restrict new releases of its web browser on both Windows and MacIntosh. Microsoft Internet Explorer would now only come bundled with the purchase of other Microsoft products.

In the future, web pages will be displayed on a variety of devices, from high-resolution desktop monitors to tiny cell-phone screens to text-to-speech readers: a layout that works on one is useless in another. The separation of content and style allows a single page of content to have a different design for each device, but this is impractical unless similar devices are grouped. Software developers need to design technology that can express layouts that fluidly translate among similar output devices. Web designers should use their technology intelligently to create such layouts for multiple device groups.

The challenge for the future technology inventors, software developers, and web designers remains threefold: good coding, good usability, and good aesthetics. In July, AOL—which had acquired Netscape—laid off or transferred all engineers working on its web browser. Fortunately for Mozilla, the project's number of non-Netscape contributers had exceeded the number of Netscape contributers three months previous. Unshackled but underfunded, the open-source organization determinedly continued work on the leading rival to Microsoft Internet Explorer. A side project, originally codenamed Phoenix and built on the back of the core Mozilla layout code, received official sanction as Mozilla's next-generation browser. Later christened Firefox, its revamped user interface continued to win devoted fans from Microsoft's clutches.

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Promoting interoperability, Safari, Mozilla, and Opera's development teams collaborate on improving web technology.