

# Incomplete List of Mistakes in the Design of CSS

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That should be corrected if anyone invents a time machine. :P

- `white-space: nowrap` should be `white-space: no-wrap`
  - and line wrapping behavior should not have been added to `white-space`
- `animation-iteration-count` should just have been `animation-count` (like `column-count`!)
- `vertical-align` should not apply to table cells. Instead the CSS3 alignment properties should exist in Level 1.
- `vertical-align: middle` should be `text-middle` or `x-middle` because it's not really in the middle, and such a name would better describes what it does.
- Percentage heights should be calculated against `fill-available` rather than being undefined in auto situations.
- Table layout should be sane.
- Box-sizing should be `border-box` by default.
- `background-size` with one value should duplicate its value, not default the second one to `auto`. Ditto `translate()`.
- `background-position` and `border-spacing` (all 2-axis properties) should take \*vertical\* first, to match with the 4-direction properties like `margin`.
- Not quite a mistake, because it was a reasonable default for the 90s, but it would be more helpful since then if `background-repeat` defaulted to `no-repeat`.
- The 4-value shorthands like `margin` should go counter-clockwise (so that the inline-start value is before the block-end and inline-end values instead of after them).
- `z-index` should be called `z-order` or `depth` and should Just Work on all elements (like it does on flex items).
- `word-wrap/overflow-wrap` should not exist. Instead, `overflow-wrap` should be a keyword on 'white-space', like `nowrap (no-wrap)`.
- The top and bottom margins of a single box should never have been allowed to collapse together automatically as this is the **root of all margin-collapsing evil**.
- Partial collapsing of margins instead of weird rules to handle min/max-heights?
- Tables (like other non-blocks, e.g. flex containers) should form pseudo-stacking contexts.
- The `currentColor` keyword should have retained the dash, `current-color`, as originally specified. Likewise all other color multi-word keyword names.
- There should have been a predictable color naming system (like CNS) instead of the arbitrary X11 names which were eventually adopted.
- `border-radius` should have been `corner-radius`.
- Absolutely-positioned replaced elements should stretch when opposite offset properties (e.g. left+right) are set, instead of being start-aligned.
- The `hyphens` property should be called `hyphenate`. (It's called `hyphens` because the XSL:FO people objected to `hyphenate`.)
- `rgba()` and `hsla()` should not exist, `rgb()` and `hsl()` should have gotten an optional fourth parameter instead (and the alpha value should have used the same format as R, G, and B or S and L).
- Descendant combinator should have been `>` and indirect sibling combinator should have been `++`, so there's some logical relationships among the selectors' ascii art
- The `*-blend-mode` properties should've just been `*-blend`
- The syntax of unicode ranges should have been consistent with the rest of `CSS`, like `U0001-U00c8`.
- Unicode ranges should not have had a separate microsyntax with their own tokenization or token handling. The tokenization hacks required either to make selectors (e.g., `u+a`) handle things that are unicode-range tokens, or make `unicode-range` handle the other huge range of tokens (numbers and dimensions with and without scientific notation, identifiers, +) are both horrible.
- `font-family` should have required the font name to be quoted (like all other values that come from "outside" `CSS`). The rules for handling unquoted font names make parsing `font` stupid, as it requires a `font-size` value for disambiguation.
- Flexbox should have been less crazy about `flex-basis` vs `width/height`. Perhaps: if `width/height` is `auto`, use `flex-basis`; otherwise, stick with `width/height` as an inflexible size. (This also makes min/max width/height behavior fall out of the generic definition.)

- ~~:empty~~ should have been `:void`, and `:empty` should select items that contain only white space FIXED in the spec, waiting for implementations to check for Web-compat...
- `table-layout: fixed; width: auto` should result in a fill-available table with fixed-layout columns.
- `text-orientation` should have had `upright` as the initial value (given the latest changes to 'writing-mode').
- The `@import` rule is required to (a) always hit the network unless you specify cache headers, and (b) construct fresh `CSSStyleSheet` objects for every import, even if they're identical. It should have had more aggressive `URL`-based deduping and allowed sharing of stylesheet objects.
- Selectors have terrible future-proofing. We should have split on top-level commas, and only ignored unknown/invalid segments, not the entire thing.
- `:link` should have had the `:any-link` semantics all along.
- The `flex` shorthand (and `flex-shrink` and `flex-grow` longhands) should accept `fr` units instead of bare numbers to represent flex fractions.
- The `display` property should be called `display-type`.
- The `list-style` properties should be called `marker-style`, and `list-item` renamed to `marked-block` or something.
- The `text-overflow` property should always apply, not be dependent on `overflow`
- `line-height: <percentage>` should compute to the equivalent `line-height: <number>`, so that it effectively inherits as a percentage not a length
- `::placeholder` should be `::placeholder-text` and `:placeholder-shown` should be `:placeholder`
- `overflow: scroll` should introduce a stacking context
- `size` should have been a shorthand for `width` and `height` instead of an `@page` property with a different definition
- We probably should have avoided mixing keywords (`span`) with idents in the grid properties [<https://github.com/w3c/csswg-drafts/issues/1137>], possibly by using functional notation (like `span(2)`).
- Comments shouldn't have been allowed basically everywhere in `CSS` (compare to `HTML`, which basically only allows them where content goes), because it makes them basically unrepresentable in the object model, which in turn makes building editing directly on top of the object model impossible
- The alignment properties in Flexbox should have been writing-mode relative, not flex-flow relative, and thus could have reasonably understandable names like `align-inline-*` and `align-block-*`.
- `shape-outside` should have had `wrap-` in the name somehow, as people assume the shape should also clip the content as in `clip-path`.
- It shouldn't be `!important` — that reads to engineers as “not important”. We should have picked another way to write this.