

Frontiers uses Unicode symbols to mark Attributes, Derivatives, and system elements: ✦ Vigor, ☆ Deft, ● Acuity, △ Resolve, ⚡ Energy, ♦ Action Points, and others.

If those render as empty boxes, question marks, or blank gaps, your system is missing a font that covers those symbol ranges. Neither the documents nor your browser are at fault.

This site loads a symbol font for you, so in most cases the glyphs will resolve on their own with nothing to install. This page is here for the cases where that does not happen: reading offline, viewing a copy of the text outside this site, or on a setup where webfonts are blocked.

The fix, in short

Install the free Noto symbol fonts, then restart your browser. It takes about two minutes and only needs doing once.

Get the fonts from [Google Fonts](#)

What the problem looks like

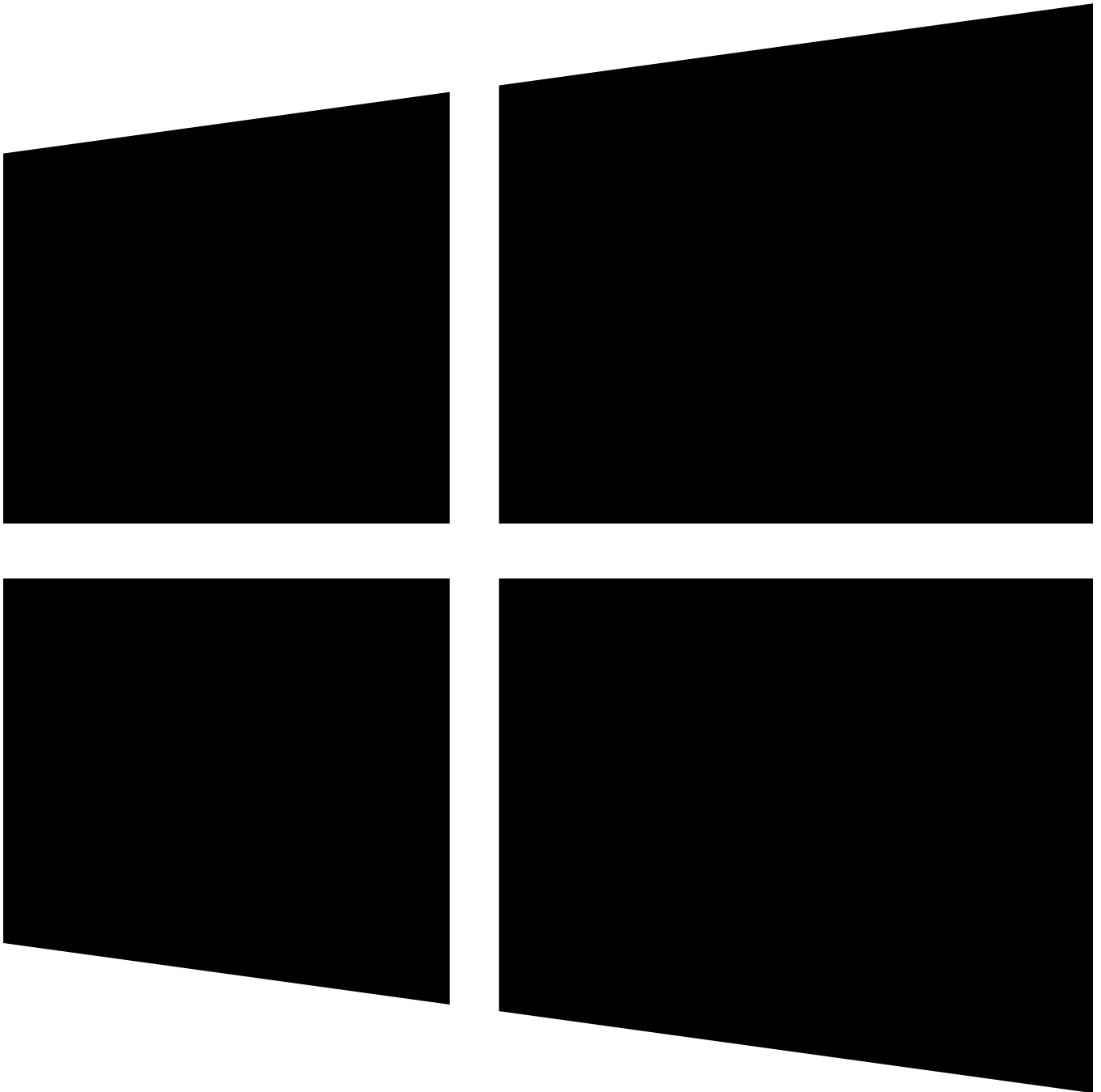
Any of these points to a missing font rather than a broken page:

- □ empty boxes, sometimes called tofu
- ? question marks in place of symbols
- blank gaps where a symbol should be
- symbols that render on one device but not another

Why it happens

The symbols come from extended Unicode blocks, including the Supplementary Multilingual Plane. Browsers fall back to system fonts for characters the page font does not cover, so if no installed font covers the block, there is nothing to fall back to and the glyph cannot draw.

Default Windows installations are the usual culprit. Most macOS and Linux systems already cover these ranges.

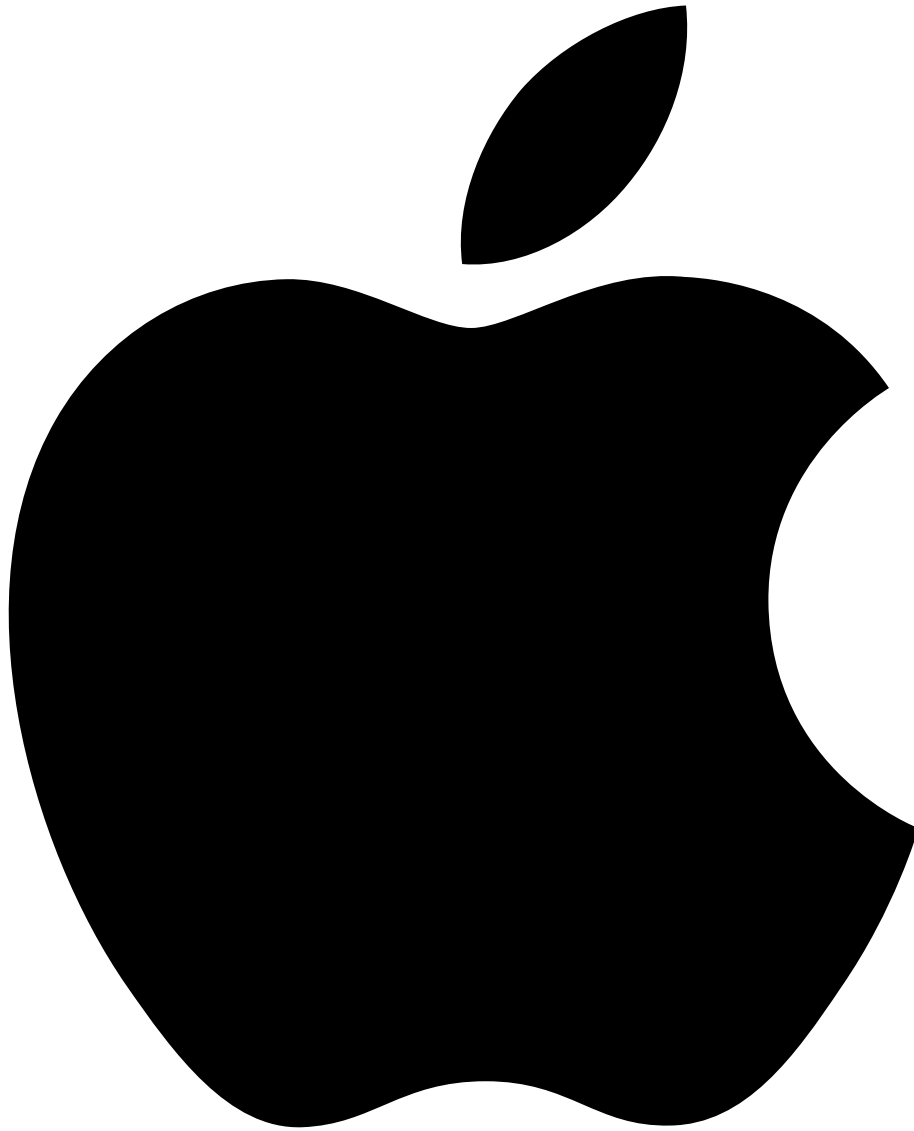


Windows

The most common case, and the one the fonts above are for.

1. Open the Google Fonts link and download the family.
2. Unzip the download.
3. Select all the `.ttf` files, right-click, and choose **Install for All Users**.
4. Restart your browser.
5. If symbols are still missing, restart the computer.

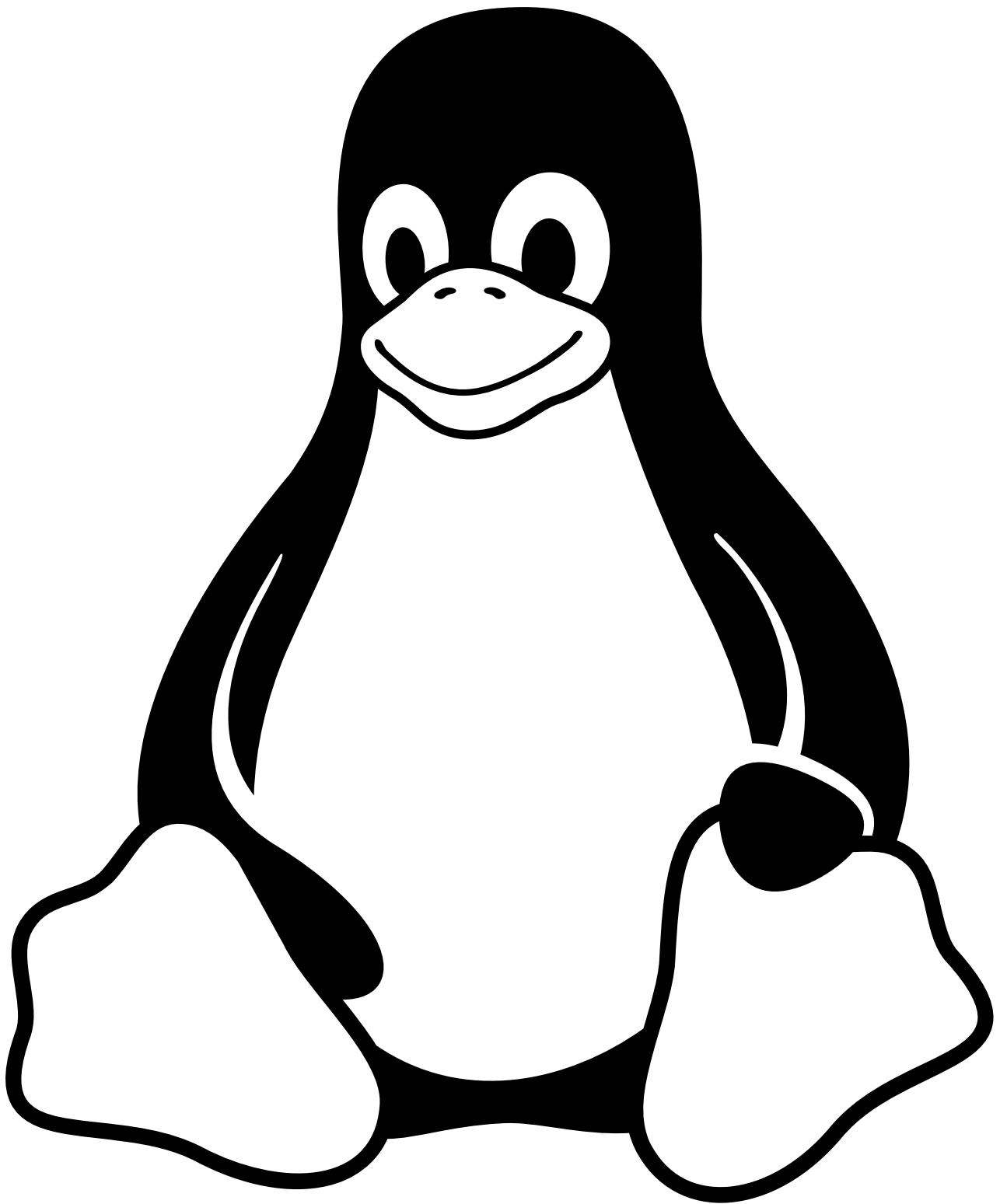
Installing for all users is the part that matters, since a per-user install sometimes leaves browsers unable to see the fonts.



macOS

Most modern macOS versions already cover these ranges, so this is rarely needed.

If symbols are missing, download the same fonts, open the `.ttf` files, and click **Install Font** in Font Book. Then restart your browser.



Linux

Most distributions ship adequate coverage. If yours does not, the Noto symbol packages are in every major repository:

```
# Debian, Ubuntu, Mint
sudo apt install fonts-noto-core fonts-noto-extra

# Fedora
```

```
sudo dnf install google-noto-sans-symbols-fonts google-noto-sans-symbols2-fonts
```

```
# Arch
```

```
sudo pacman -S noto-fonts noto-fonts-extra
```

Then refresh the font cache with `fc-cache -f` and restart your browser.

If symbols are still missing

Work through these in order:

- Restart the browser completely, not just the tab.
- Confirm the fonts installed system-wide rather than per-user.
- Update the browser to a current version.
- Clear the browser cache.
- Try a different browser. If symbols appear there, the first browser is caching an old font list.

Still stuck? Email Jayke and say which operating system and browser you are using.