

Conquer Variable Web Typography

86/60

Oliver Schöndorfer  glyphe

file:///Dropbox/Voträge/Variable%20Web%20Typography/Demos/Master%20Exe

IT'S TIME FOR variable web TYPOGRAPHY

BY OLIVER SCHÖNDORFER

Variable fonts will shape the future of web typography. They offer plenty of possibilities for fine graded control over the display of type on screens. And for the possibilities they create they come at a lower file size and can bring a performance gain.

Say good bye to endless debates about the amount of font files you have to load to give your content a proper typographic voice. This paragraph uses the beautiful typeface **Output Sans Variable** by David Jonathan Ross. It's a variable font that can be adjusted on two axes. It can change its weight and obliqueness. So I only have to load *one font file* to create a lot of typographic expressions. That comes very handy when the web became a very limited

14

font files

453

KB

1

font file

56 KB

overall size

How to get started on variable fonts

1. What are variable fonts?
2. Using variable fonts on the web
3. Golden times
4. Hard times

What are variable fonts?

Aa

Light

Aa

Regular

Aa

Medium

Aa

Bold

Aa

X-Bold

Aa

Light

Aa

Regular

Aa

Medium

Aa

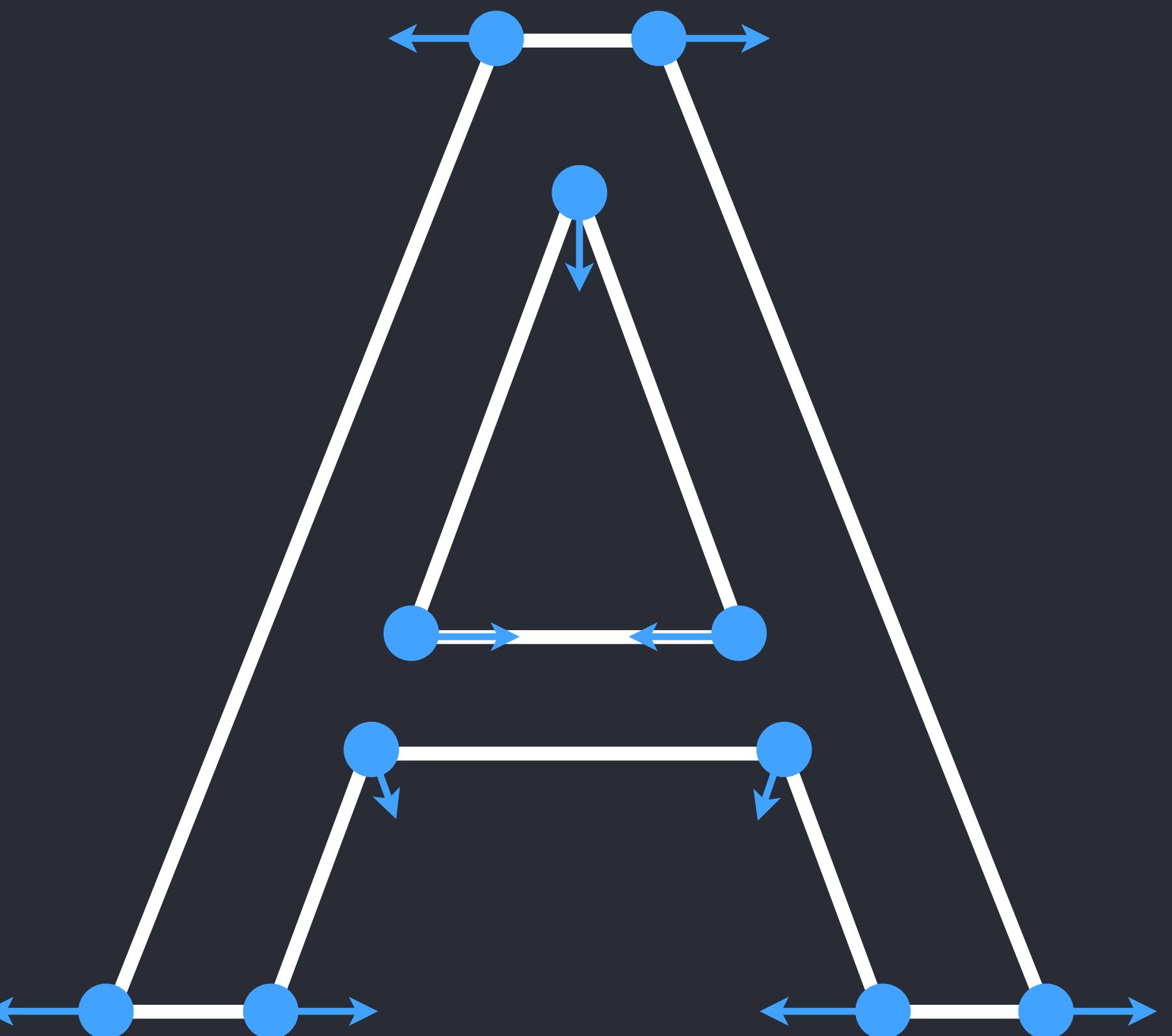
Bold

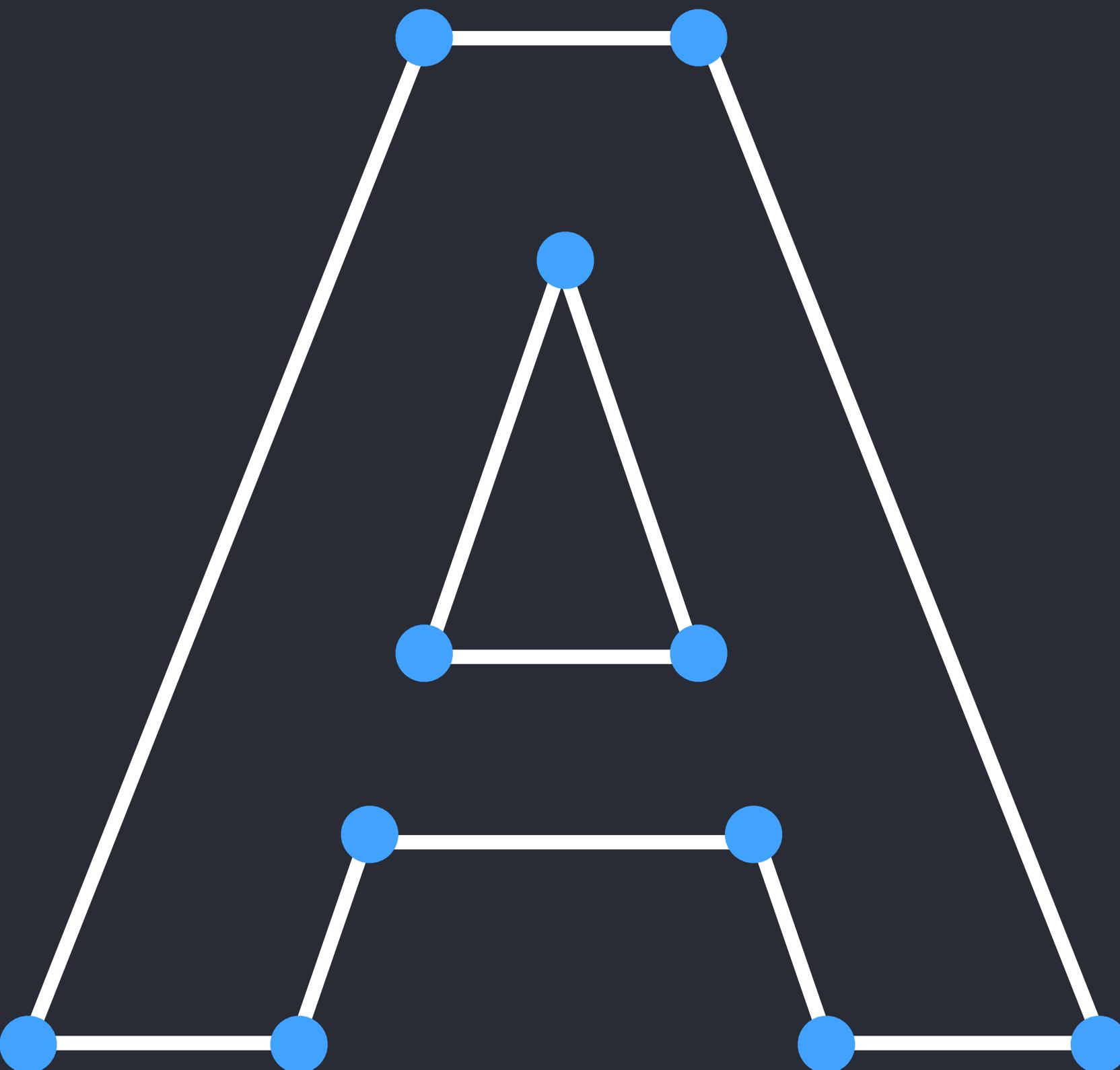
Aa

X-Bold

Aa Aa Aa Aa Aa

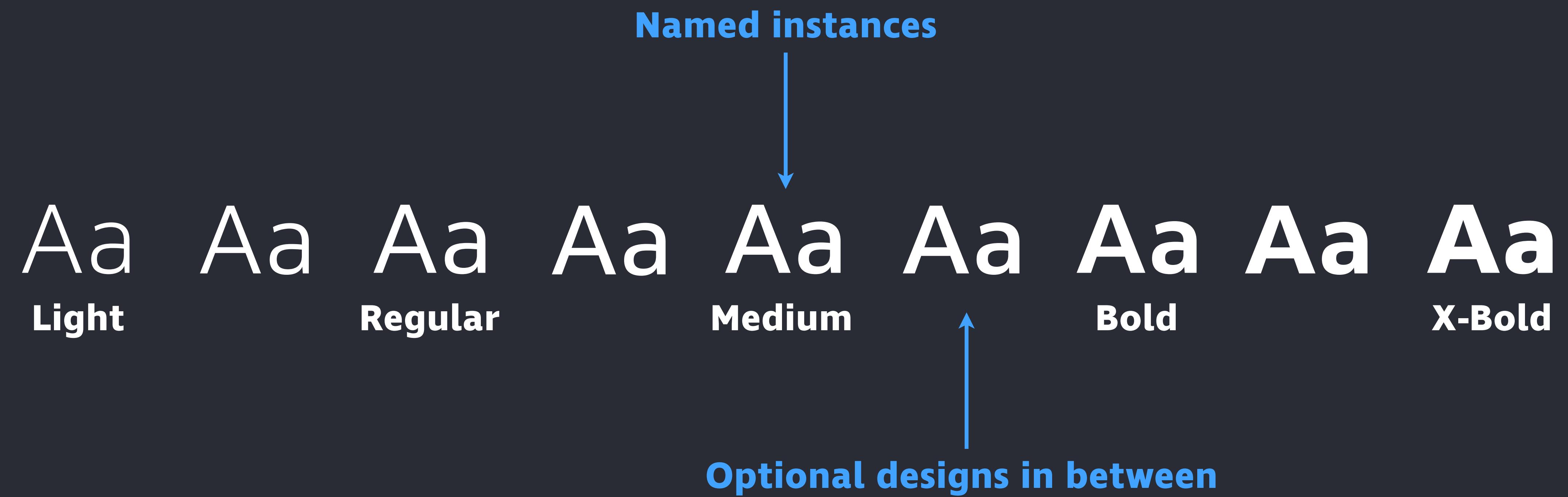
Variable font file





Aa Aa Aa Aa Aa Aa Aa Aa Aa

←———— **Interpolation** —————→



Aa Aa Aa Aa Aa

← **weight axis** →



Aa
Aa
Aa Aa Aa Aa Aa
Aa
Aa



Using variable fonts

on the web

66 %

Global support



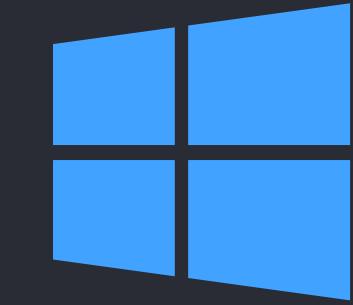
Safari 11



Chrome 62



**MacOS 10.13
iOS 11.2**



Windows 10



Coming soon



Firefox 60

Edge 17

Variable Fonts (beta)



A simple resource for finding and trying variable fonts

Angus Variable

Weight: 0 1000

A rounded sans that maintains consistent widths regardless of changes in weight.

Design: Elliott Amblard
Publisher: Black[Foundry]
Characters: Latin
Licensing: Paid/commercial
Info/fonts: black-foundry.com

Angus Variable

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi
jklmnopqrstuvwxyz 0123456789

Angus Variable Italic

ABCDEFGHIJKLMNOPQRSTUVWXYZ abcdefghi
jklmnopqrstuvwxyz 0123456789

Eckmannpsych Variable

Optical Size: 0 1000

A psychedelic interpretation of Otto Eckman's [Eckmann-Schrift](#), available with discounted pricing as a work-in-progress design. It comes with a bonus [DrawBot](#) script for making variable animations.

Design: James T. Edmondson
Publisher: OH no Type Co.
Characters: Latin
Licensing: Paid/commercial
Info/fonts: futurefonts.xyz

EBCDEFGHIJKLMNOPQ
RSTUVWXYZ
0123456789

Discover new variable fonts
try them out,
see where to get them

```
@font-face {  
    font-family: 'Venn';  
    src: url('Venn.woff2') format('woff2-variations'),  
         url('Venn.woff2') format('woff2');  
}
```

Will become the standard



Fallback for the others

[Introduction](#)[MY SPECIMENS](#)[Old Default](#)[SPECIMENS](#) [FounderType YouHei](#) [Gnomon](#) [Venn](#)[文鼎晶熙黑](#)[晶熙ゴシック体](#)[Amstelvar](#)[Avenir Next](#)[Bitcount](#)[Buffalo Gal](#)[Compressa](#)[Decovar](#)[DIN 2014](#)[Dunbar](#)[Fit](#)[Gingham](#)

Axis-Praxis is a website for playing with OpenType Variable Fonts

Discover 30+ variable fonts. Experiment with the right panel on this default layout, or choose a type column. Every textbox is fully editable: change font spacing as well as the variation sliders. And type your



Font makers can try out their own designs. Just drag any variable TTF to the current textbox gets set to that font, and its axes show up right away in the Font Variation section.

The Font Variation controls adapt according to the variation axes inside each font, one slider

TEXTBOX

Textbox: summary1

Font: Voto Serif GX

Font size:

FONT VARIATIONS

Instance:

Width:

Weight:

Optical Size:

1.
Select font or drop font file

2.
See available axes and ranges



registered axes

wght

wdth

ital

slnt

opsz

Weight Axis

Source Serif Variable by Adobe



Weight Axis

font-weight: 327;

font-variation-settings: "wght" 327;

`font-weight: 327;`

High-level property

will become standard with CSS 4 Font Module

`font-variation-settings: "wght" 327;`

Low-level property

supported by all participating browsers now

Width Axis

Venn by Dalton Maag

 glyphé

Width Axis

font-stretch: 78%;

font-variation-settings: "wdth" 78;

Slant Axis

Output Sans by David Jonathan Ross



Slant Axis

font-style: oblique 10deg;

font-variation-settings: "slnt" 10;

Optical Sizing Axis

Aa Aa Aa Aa

**Low contrast
for small sizes**

Aa Aa Aa Aa

12px

**High contrast
for large sizes**

Aa Aa Aa Aa

72px

Aa Aa Aa Aa

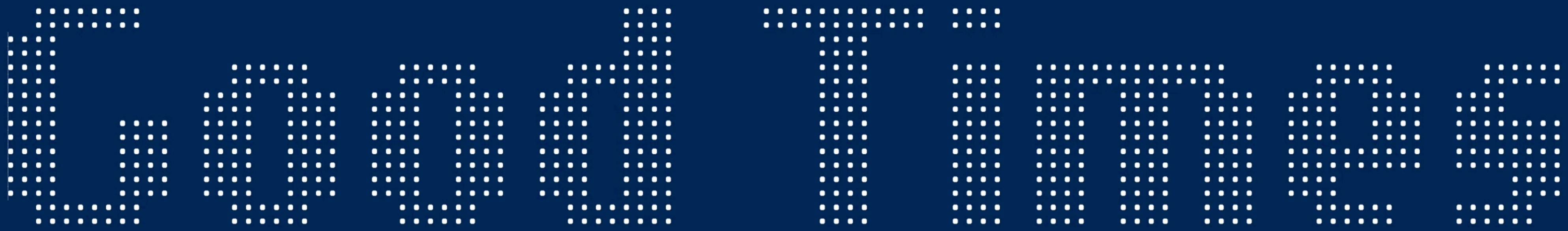
font-optical-sizing: auto;

font-variation-settings: "opsz" 72;

CUSTOM AXIS

CUSTOMAXIS

font-variation-settings: "TRMC" 1000,
"SKLA" 400,
"SKLB" 800, ...



ANZEIGE

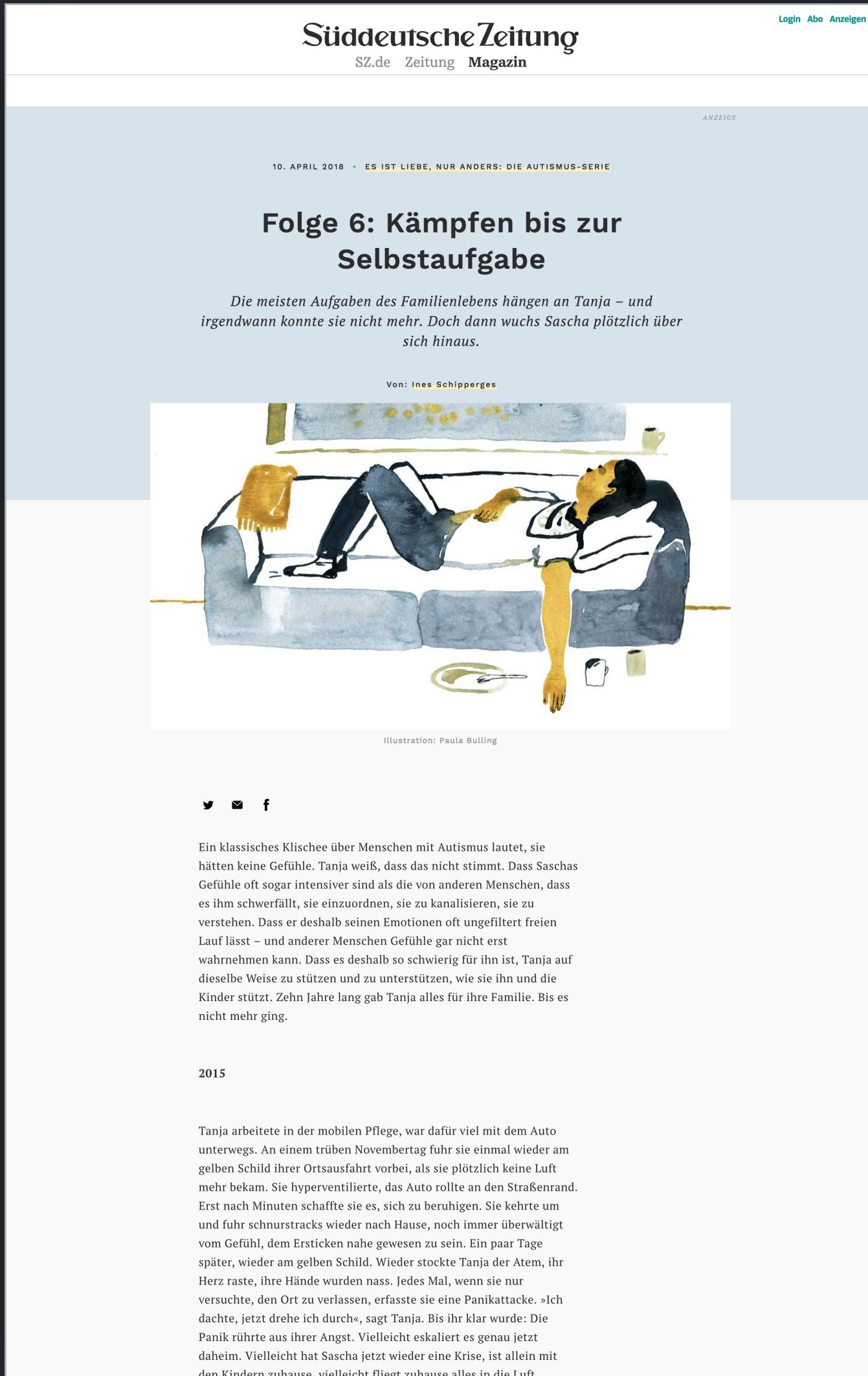
10. APRIL 2018 • **ES IST LIEBE, NUR ANDERS: DIE AUTISMUS-SERIE**

Folge 6: Kämpfen bis zur Selbstaufgabe

Die meisten Aufgaben des Familienlebens hängen an Tanja – und irgendwann konnte sie nicht mehr. Doch dann wuchs Sascha plötzlich über sich hinaus.

Von: [Ines Schipperges](#)





23 KB PT Serif Regular

23 KB PT Serif Bold

24 KB PT Serif Italic

36 KB Work Sans Regular

39 KB Work Sans Medium

39 KB Work Sans SemiBold

52 KB Work Sans Bold

166 KB

Süddeutsche Zeitung
SZ.de Zeitung Magazin

ANZEIGE

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Von: Ines Schipperges



Illustration: Paula Bulling

Ein klassisches Klischee über Menschen mit Autismus lautet, sie hätten keine Gefühle. Tanja weiß, dass das nicht stimmt. Dass Saschas Gefühle oft sogar intensiver sind als die von anderen Menschen, dass es ihm schwerfällt, sie einzuordnen, sie zu kanalisieren, sie zu verstehen. Dass er deshalb seinen Emotionen oft ungefiltert freien Lauf lässt – und anderer Menschen Gefühle gar nicht erst wahrnehmen kann. Dass es deshalb so schwierig für ihn ist, Tanja auf dieselbe Weise zu stützen und zu unterstützen, wie sie ihn und die Kinder stützt. Zehn Jahre lang gab Tanja alles für ihre Familie. Bis es nicht mehr ging.

2015

Tanja arbeitete in der mobilen Pflege, war dafür viel mit dem Auto unterwegs. An einem trüben Novembertag fuhr sie einmal wieder am gelben Schild ihrer Ortsausfahrt vorbei, als sie plötzlich keine Luft mehr bekam. Sie hyperventilierte, das Auto rollte an den Straßenrand. Erst nach Minuten schaffte sie es, sich zu beruhigen. Sie kehrte um und fuhr schmurstacks wieder nach Hause, noch immer überwältigt vom Gefühl, dem Ersticken nahe gewesen zu sein. Ein paar Tage später, wieder am gelben Schild. Wieder stockte Tanja der Atem, ihr Herz raste, ihre Hände wurden nass. Jedes Mal, wenn sie nur versuchte, den Ort zu verlassen, erfassste sie eine Panikattacke. »Ich dachte, jetzt drehe ich durch«, sagt Tanja. Bis ihr klar wurde: Die Panik rührte aus ihrer Angst. Vielleicht eskaliert es genau jetzt daheim. Vielleicht hat Sascha jetzt wieder eine Krise, ist allein mit den Kindern zuhause, vielleicht fliegt zuhause alles in die Luft.

Work Sans Regular

Work Sans Medium

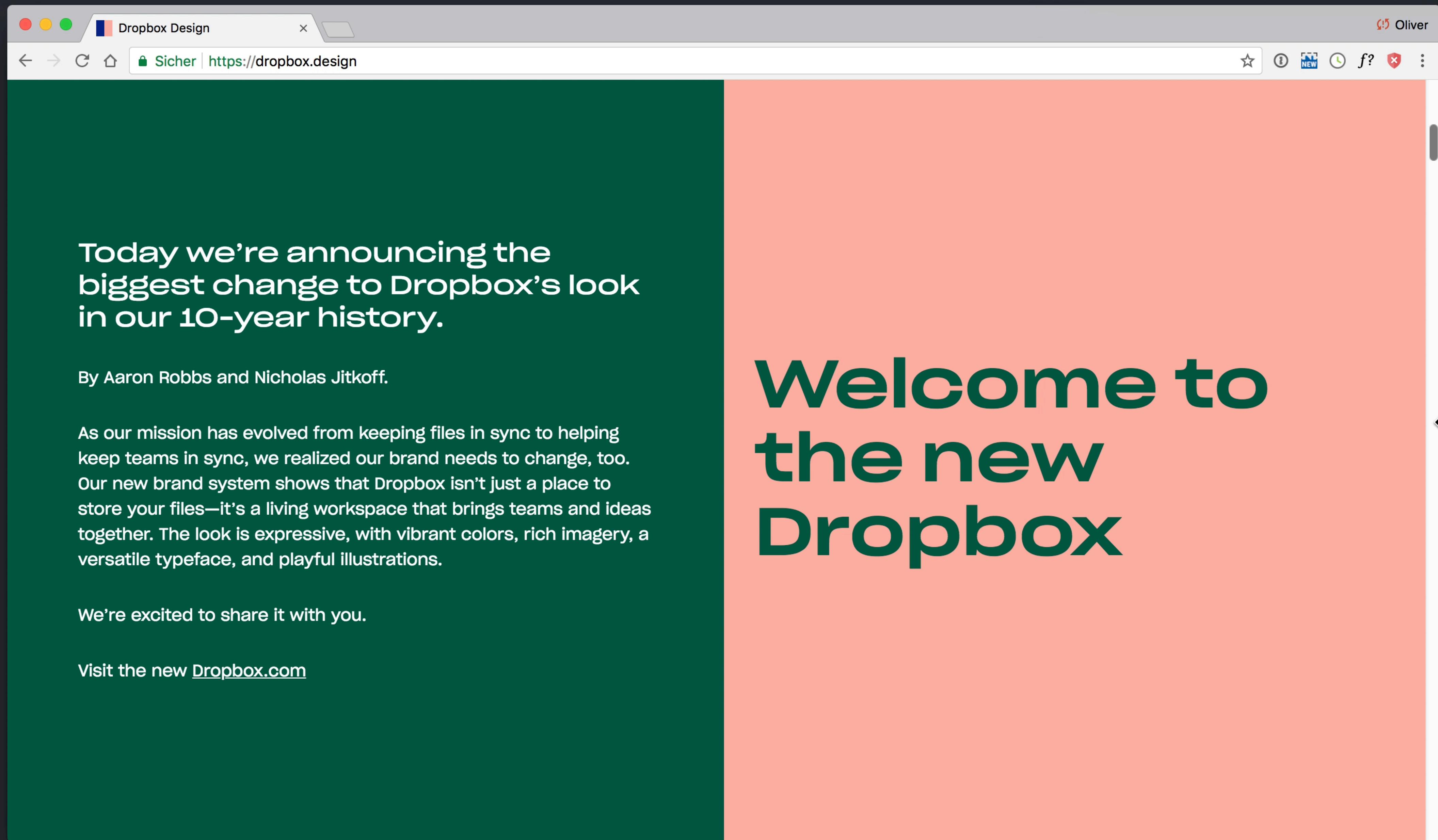
Work Sans SemiBold

Work Sans Bold

Work Sans Variabel?

166 KB

~80 KB

A screenshot of a web browser window titled "Dropbox Design". The address bar shows "Sicher | https://dropbox.design". The page content is split into two main sections. The left section has a dark green background and contains the following text:

Today we're announcing the biggest change to Dropbox's look in our 10-year history.

By Aaron Robbs and Nicholas Jitkoff.

As our mission has evolved from keeping files in sync to helping keep teams in sync, we realized our brand needs to change, too. Our new brand system shows that Dropbox isn't just a place to store your files—it's a living workspace that brings teams and ideas together. The look is expressive, with vibrant colors, rich imagery, a versatile typeface, and playful illustrations.

We're excited to share it with you.

Visit the new [Dropbox.com](#)

The right section has a light orange background and features large, bold, dark green text:

**Welcome to
the new
Dropbox**

The screenshot shows a web browser window titled "Dropbox Design". The address bar indicates a secure connection to "https://dropbox.design". The main content is split into two vertical sections. The left section, with a dark teal background, contains the following text:

Today we're announcing the biggest change to Dropbox's look in our 10-year history.

By Aaron Robbs and Nicholas Jitkoff.

As our mission has evolved from keeping files in sync to helping keep teams in sync, we realized our brand needs to change, too. Our new brand system shows that Dropbox isn't just a place to store your files—it's a living workspace that brings teams and ideas together. The look is expressive, with vibrant colors, rich imagery, a versatile typeface, and playful illustrations.

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The right section, with a light orange background, features the text:

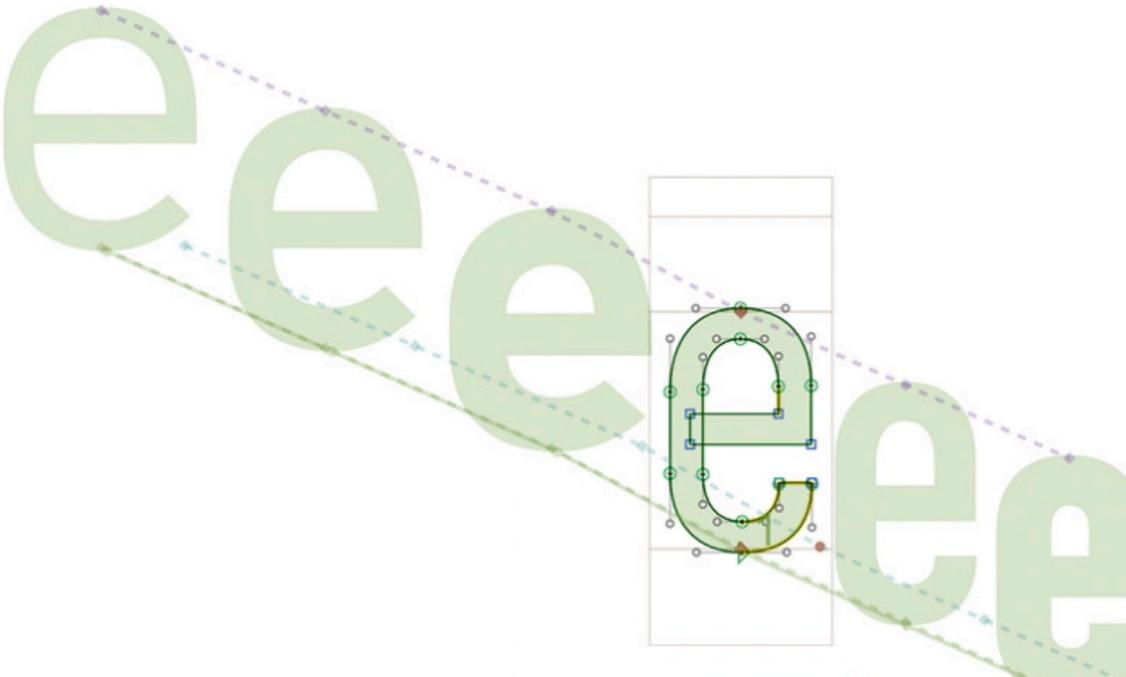
Welcome to the new Dropbox

Variable Fonts Demo | Microsoft Edge Oliver

← → C ⌘ ⌘ Sicher https://developer.microsoft.com/en-us/microsoft-edge/testdrive/demos/variable-fonts/ ☆ ⓘ NEW ⌂ f? ✎ :

Contents ▾

ENTER VARIABLE FONTS



Similarly, many web developers have advocated a return to system font stacks, prioritizing performance over brand cohesion or design differentiation. Performance has the potential for major impact on user experience and a business's bottom line, and so the web community needed to figure out how to balance this priority against the desire for beautiful typography.

To help solve this problem, one of the most impactful changes was made to the OpenType font format in collaboration by Adobe, Apple, Google, Microsoft and others. The solution was to enable font designers to provide

Pause animations



Chrome

```
h1 { font-size: 20vmax; }
```

```
h2 { font-size: 11vmax; }
```

```
h3 { font-size: 5vmax; }
```



Safari

Supports font-optical-sizing: auto by default

Hard times

A screenshot of a web browser displaying the **AXISPRAXIS** website at <https://www.axis-praxis.org/specimens/amstelvar>. The page features a large, bold, red "Amstelvar" title. Below it, a red box contains the text: "The OpenType Font Variations format includes a broad range of standard variables: weights from heavy to light, widths from wide to narrow, optical sizes from small to large, contrast, serif slope, and a few others which are currently on the drawing board. This demo variation font includes a Weight axis that lightens without change horizontally or vertically, to the white space, and darkens the same way, without decreasing the white space, just changing the black, and the widths of the glyphs." To the right of the text box is a sidebar titled "TEXTBOX" containing settings for "Font" (AmstelvarAlpha Default), "Font size", "Line-height", and "Alignment". Below this is a section titled "FONT VARIATIONS" with numerous sliders for "Weight", "Width", "Optical Size", and various "x" and "y" variations like "x opaque", "x transparent", and "y transparent". The sidebar also includes "CSS", "New textbox", and "Delete textbox" buttons.

Overchoice
Many options
make it harder
and require
much more
knowledge

Static Fonts



Variable Font



—

90 KB

—

110 KB

Static Fonts



Regular
30 KB



Italic
30 KB



Bold
30 KB

Variable Font



Roman
110 KB



Italic
110 KB



90 KB



220 KB

Single font



€ 30–60

Font family



€ 300–700

Single font



€ 30–60

Variable font



€ ?

Font family



€ 300–700

README.md

MutatorSans

This project consists of [UFO](#) source font data for a small 2 dimensional [designspace](#).

- Weight and width axes, 2 intermediates.
- Intended for testing all sorts of [variable](#) and [mutator math](#) and making it not look entirely stupid.
- Contains components.
- Cubic outlines.
- Working minimal Variable Font, however without STAT table, or complete charerset
- I may or may not add to the charerset.

Building in RoboFont

- [Install the Patch RoboFont extension](#)

github.com/LettError/mutatorSans



Open
Source

TYPE+TECH®

SHOP

Buy 12 styles Get variable fonts

Black[Foundry] strives to stay on top of the latest advancements in font technology.

To help you get acquainted with the groundbreaking new font format, we offer you the Vesterbro variable fonts for free when you buy the full family.

Vesterbro



Drag slider to see how variable fonts work

FREE TRIAL

Buying options

CHOOSE LICENCE

- Desktop
- Webfont
- App

Up to 3 users

VESTERBRO FULL FAMILY

- 12 fonts + 2 Variables -20% 344€

VESTERBRO ROMANS

- 6 weights + Variable -20% 172€

VESTERBRO ITALICS

- 6 weights + Variable -20% 172€

INDIVIDUAL WEIGHTS

- Vesterbro-Light 35€
- Vesterbro-LightItalic 35€
- Vesterbro-Regular 35€
- Vesterbro-Italic 35€

Add on

Dunbar variable font

Example movie of what a single variable font can do with weight and x-height axes. Live demo.

Retail

Dunbar Series | ← Buy Var Font

Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|Low|Low|Low|Low|Low|Text|Text|Text|Text

Dunbar Tall | ← Buy Var Font

Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|Tall|

Dunbar Low | ← Buy Var Font

Low|Low|Low|Low|Low|Low|

Dunbar Text | ← Buy Var Font



Variable font technology from Adobe

Adobe is deeply involved with the development of the technology behind variable fonts. This page is where we'll keep an ongoing record of our progress.

Our team is keeping track of the conversation on [TypeDrawers](#), and you can also keep an eye on us via [Twitter](#).

Articles & Interviews

[Introducing Variable Fonts](#)

Start here with our overview: What are variable fonts, and what's so different about the way they work?

[Adobe releases a prototype variable font](#)

Font developers will need to see how variable fonts work from the inside out, and we're making the tools openly available on [GitHub](#).

Summing up

- **One font file** with many possible styles
- **Fine graded influence** for better typography – when you know what you're doing
- **Improvements by default** with optical-sizing
- **Performance gain** under certain conditions

Resources

- For new releases v-fonts.com and twitter.com/variablefonts
- Testing variable fonts axis-praxis.org
- List of available variable Fonts by Indra Kupferschmid
- Various talks about variable fonts by [TYPO Labs 2018](#)
- Getting started with variable fonts by Richard Rutter
- How to use variable fonts in the real world by Richard Rutter

Be more variable

Slides on speakerdeck.com/glyphe

Oliver Schöndorfer  **glyphe** 8660.at