

Legibility in typeface design for screen interfaces

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Master's Thesis

Aalto University School of Arts, Design and Architecture
New Media – New Media Design and Production

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Research: *What is an interface typeface?*
Project: *Design one!*

Why new typefaces?

Silta

Same difference

Same difference

Same difference

Same difference

Same difference

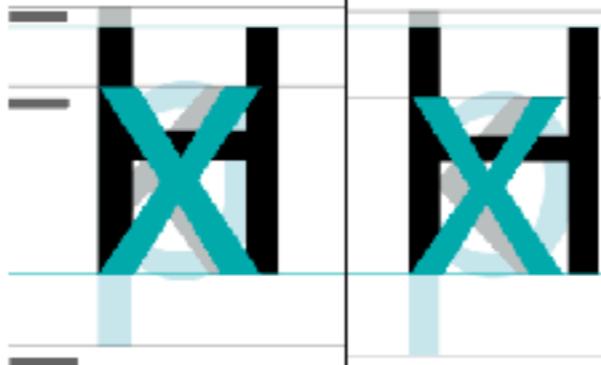
Same difference

slanty gabs low

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 & @ . , ? ! " " ()

*Strong shoulder slightly asymmetrical bowls
quite condensed caps*

Clear Sans



A typeface design for "[l]egibility, readability, and glanceability on low-resolution screens". Prominent features such as open counters, explicit glyph shapes and high x-height support legibility in small sizes. The angular round shapes, angular shoulders and overall even width lend a strong and modernist character.

- A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m
n o p q r s t u v w x y z
0 1 2 3 4 5 6 7 8 9 ! & %

minimum
milliliter
oO000

Grumpy wizards make toxic brew for the evil Queen and Jack. One morning, when Gregor Samsa woke from troubled dreams, he found himself transformed in his bed into a horrible vermin. He lay on his armour-like back, and if he lifted his head a little he could see his brown belly, slightly domed and divided by arches into stiff

minimum
milliliter
oO000

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Apex Image Helpo

onb round shapes with strong curve tension
nqg shoulder and bowls with diagonal angle
AP low verticals for good legibility in small sizes

Segoe UI

Designed as an humanist interface font for use in Microsoft products (originally developed by Agfa Monotype) this font bears similarities to Tahoma and Frutiger, but has some more

- A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m
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minimum
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oO000

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Strict Xeon Inkling

CSInt36 straight vertical cuts on terminals
JII optical compensation in crotch and stem connections

Fix Fix

Adobe Garamond Pro

Silta

The image displays a comparison of the ligature 'fg' in two serif fonts. On the left, the ligature is rendered in a red color, representing the font 'Adobe Garamond Pro'. On the right, it is rendered in a teal color, representing the font 'Silta'. Both ligatures are set against a white background with five horizontal color-coded lines: a red line at the top, followed by a black line, a dark blue line, another black line, and a red line at the bottom. The red 'fg' ligature in 'Adobe Garamond Pro' features a traditional design with a small loop on the 'f' and a vertical stem on the 'g'. In contrast, the teal 'fg' ligature in 'Silta' has a more modern, rounded design where the 'f' and 'g' are joined at their midpoints.

fg

Adobe Garamond Pro

fg

Silta

Hx

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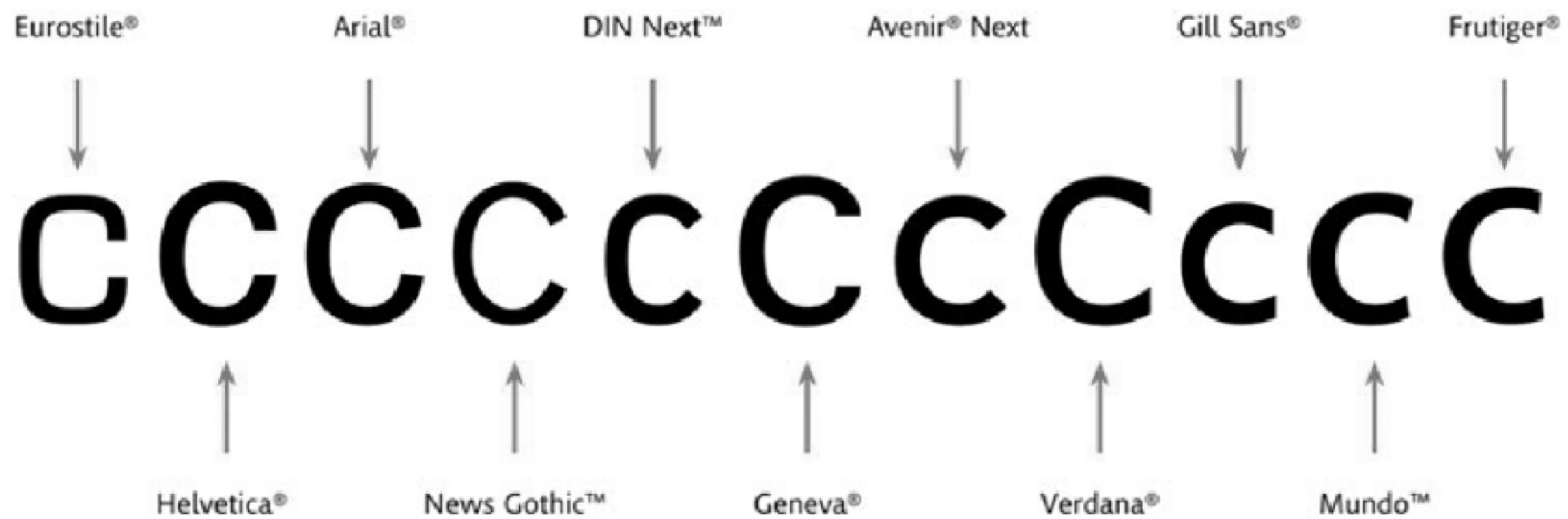
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Hx

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milliliter

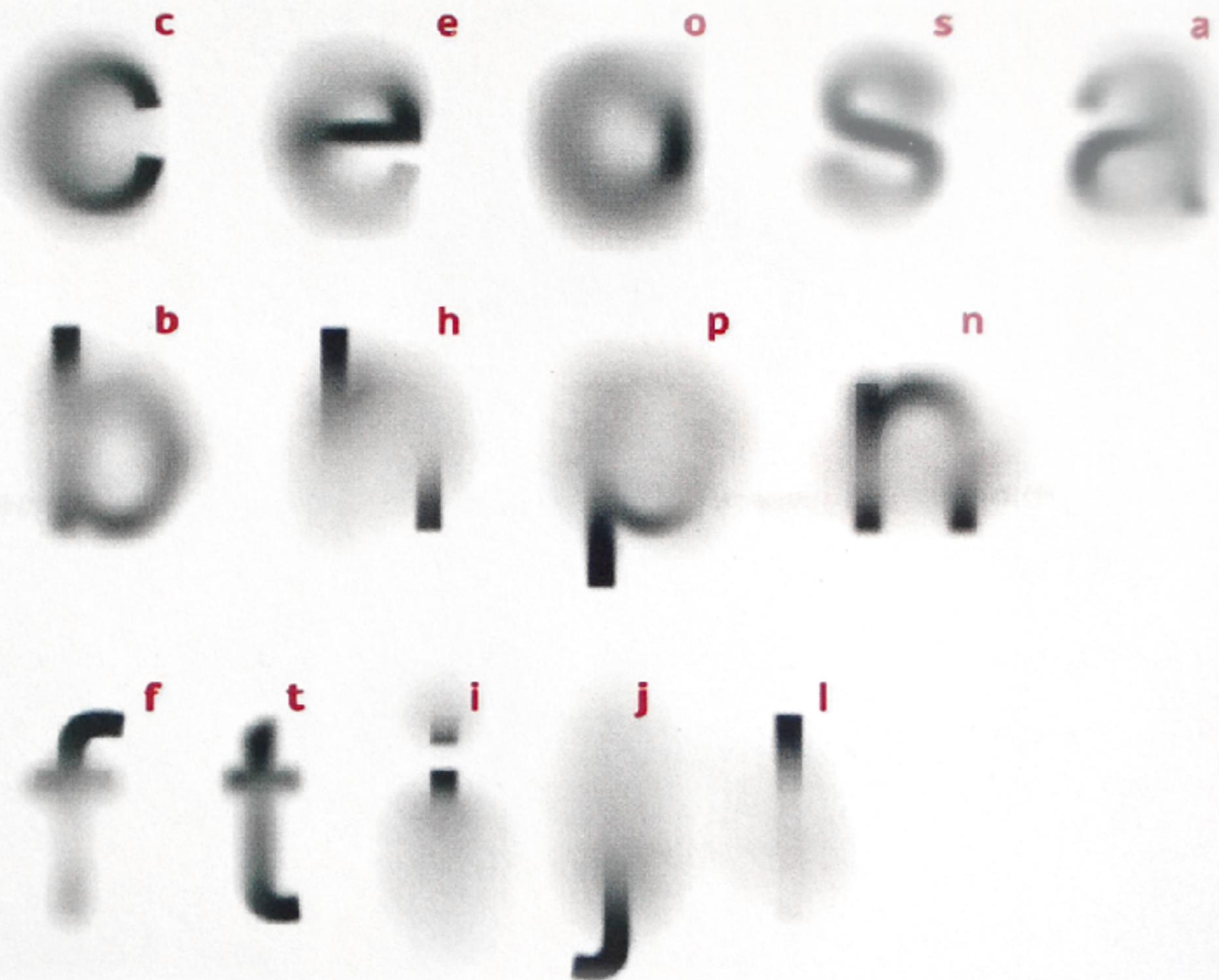


Image: Beier, 2012, Reading Letters

Fiset et al, 2008, Features for identification of uppercase and lowercase letters

III

II1

II1

Il1

Il1

Il1

I I III students are missing?

11 Ill students are missing!

Gill Sans

Silta

Reading & interfaces



Eyjafjallajökull

Eyjafjallajökull ('ei:ja, fja:tla, jœ:kvtl) er sjötti stærsti jökull Íslands. Undir jöklinum er **eldkeila** sem hefur gosið fjórum sinnum síðan land byggð árið 920, þá 1612, 1821 og 2010. Öll þessi gos hafa verið frekar lítil. Þegar gaus árið 1821 stóð gosið til ársins 1823. Gos hótst svo á Fimmvöldum 20. mars 2010 austan við Eyjafjallajökul. Þann 14. apríl 2010 hótst gos undir jökulhettunni.

Eyjafjallajökull er einn af hæstu tindum Íslands, um 1.666 m hárr. Úr jöklinum renna 2 skriðjöklar sem heita Steinsholtsjökull og Gígjökull en báðir til norðurs í átt að Þórmörk. Hafa þeir á síðustu árum hörfað mikil og er Gígjökull nánast að hverfa.

Eyjafjallajökull og Mýrdalsjökull eru næst hvor öðrum á Fimmvörðuhálsi. Þar reka Ferðafélag Íslands og Útivist 2 gistiskála sem heita Baldvin Fimmvörðuskáli. Eyjafjallajökull er mjög varasamur til ferðalaga vegna jökulsprungna en jökkullinn er mjög brattur og sprunginn.

Eldgos í Fimmvörðuhálsi 2010 [breyta | breyta frumkóða]

Aðalgrein: [Eldgosið í Fimmvörðuhálsi 2010](#)

Lítið eldgos varð 2010 á Fimmvörðuhálsi, austan Eyjafjallajökuls, og stóð frá 21. mars til 13. apríl það ár. Fyrstu merki um gosið sáust kl. 23:55 voru talin vera í Eyjafjallajökli. 2010[1]. Siðar kom í ljós að gossprungan var á Fimmvörðuhálsi.

Eldgos í Eyjafjallajökli 2010 [breyta | breyta frumkóða]

Aðalgrein: [Eldgosið í Eyjafjallajökli 2010](#)

Eldgos hótst í toppgíg Eyjafjallajökuls að morgni 14. apríl 2010 og stóð til 23. maí það ár.

Heimildir [breyta | breyta frumkóða]

- „Eyjafjallajökull“, skoðað þann 28. desember 2005.
- „Eyjafjallajökull“, skoðað þann 28. desember 2005.

s · r · b

Jöklar á Íslandi

Drangajökull · Eiríksjökull · **Eyjafjallajökull** · Gljúfurárjökull · Hofsjökull · Langjökull · Mýrdalsjökull · Snæfellsjökull · Tindfjallajökull · Torfajökull · Tunngatjökull · Þrándarjökull · Öræfajökull



þessi [Íslands](#)grein sem tengist [landafræði](#) er stubbur. þú getur hjálpað til með því að [bæta](#) við greinina.

Feature level:

lt eco rnm

Letter level:

a *is an* a *is an* a

Word level:

this and t~~b~~is

Semantic level:

dogs and oats

Project progress

opalim

opalim

slipperly wile

O like content

FONLAB FONT TEST

Font: Lines Regular

Size: 24

J forward C
forwarded C
forwarded C

4/16/16 11:40

Page 1/1

hamburgerfonstiv *with too heavy*
 odpqb nhmru *W too heavy*
 wxzy ace agse qyj jitfl *4 too heavy*
 abcedfghijklmnopqrstuvwxyz *all round heavy & on the top*
 ABCDEFGHIJKLMNOPQRSTUVWXYZ *need another*
 aAbBcCdDeEfFgGhHiIjIkKlLmMnNoOpPqQrRsStTu
 UvVwWxXyYzZ *8 words strange downspine slant*
 0123456789 *3 words*
 H0H1H2H3H4H5H6H7H8H9H *J forward under and over*
 OOO1O23O4o5o6o7o8o9o *J round under and over*
 31 1985 2015 12.75 0.97 47 95 13 89
 OO 1IL 2SZ 3EB 4ZK 5SR 6O 7ZS 8SO 9O *O goes up*

Waxy and quivering jocks fumble the pizza.
 When zombies arrive quickly fax judge Pat.
 Heavy boxes perform quick waltzes and jigs.
 A wizard's job is to vex chumps quickly in fog.

Sympathizing would fix Quaker objectives.
 Pack my red box with five dozen quality jugs.
 Blew J's computer quiz favored proxy hacking.
 Quads of blowzy fjord ignite map vex d chicks.
 Fake bugs put in wax jonquils drive him crazy.

Sylvia wagt quick den Jux bei Pforzheim
 Franz jagt im komplett verwahrlosten Taxi quer
 durch Bayern
 Victor jagt zw lf Boxk mpfer quer ber den
 gro en Sylter Deich

Fix Schwyz qu kt J rgen bl d vom Pa
 Quick Schwyz J rgen squawks zanily from

nononon

coooooouooooouoooo

nnnnnnnnnnnnnnnnnn

nnnnnooooooooooooo

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nononon

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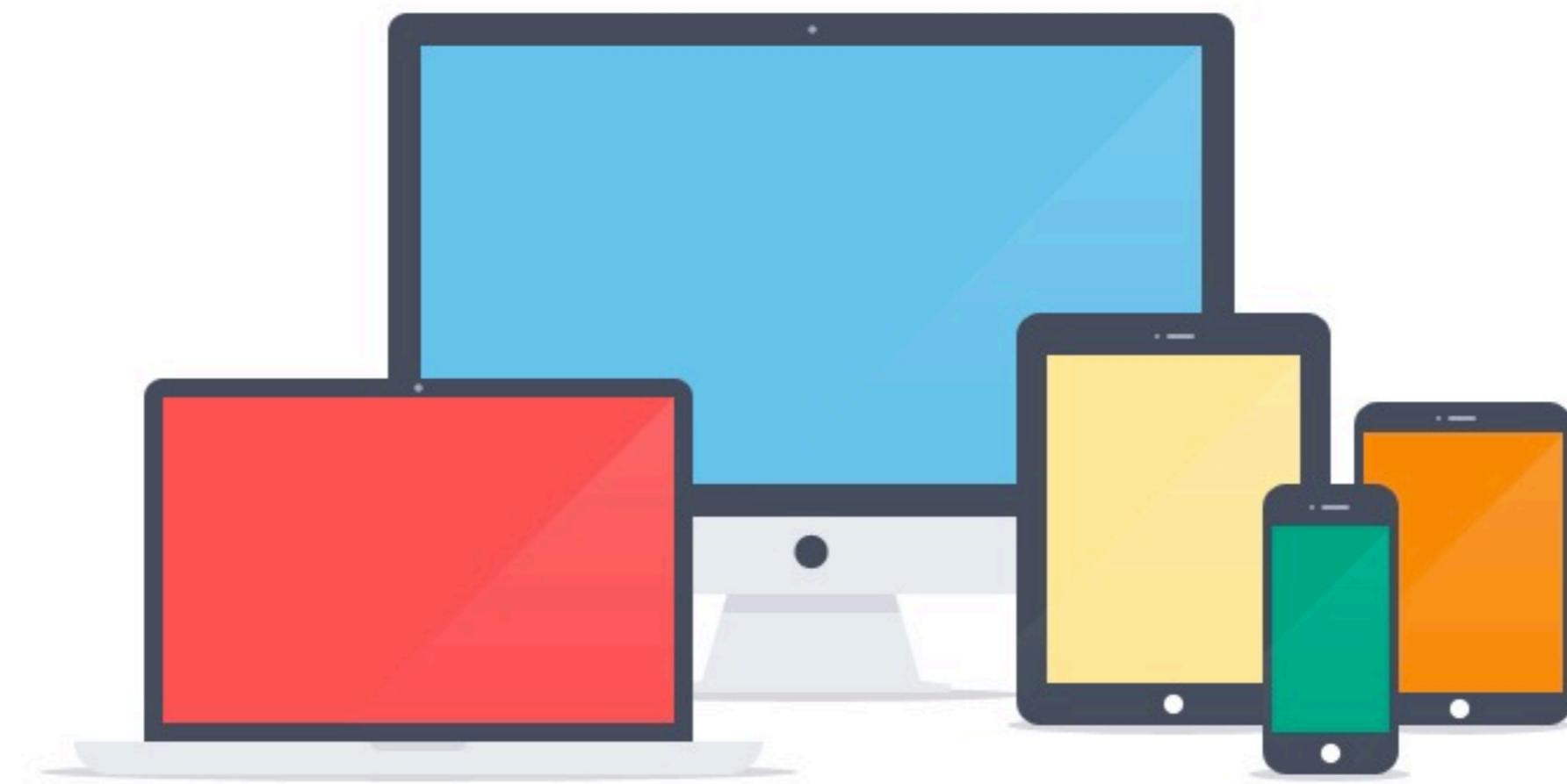
aA aA aA

aA aA aA

aA aA aA aA aA aA aA

aA aA aA aA aA aA aA

The future

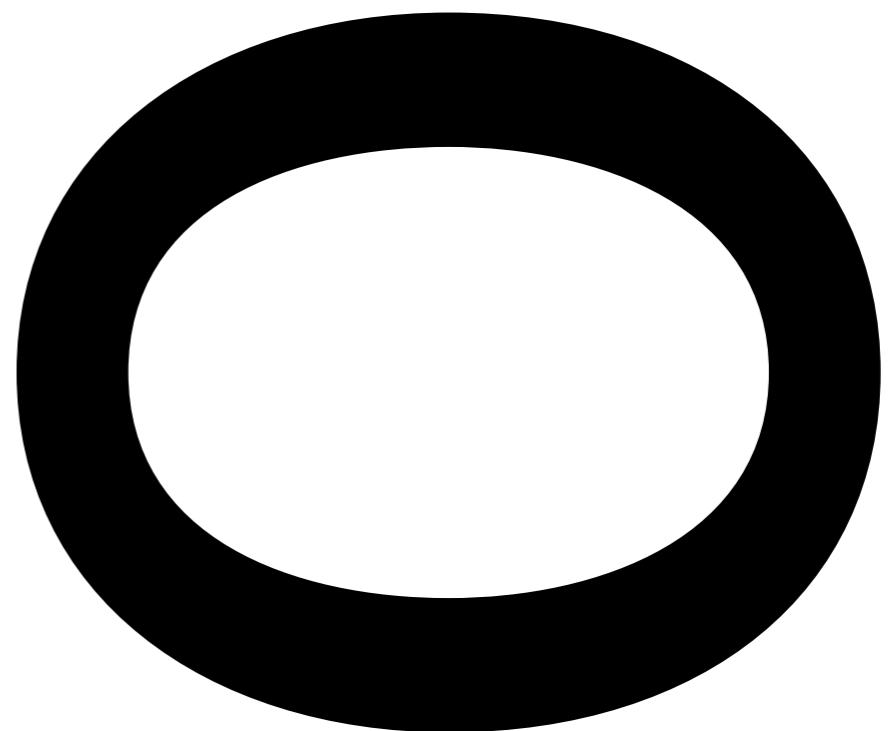
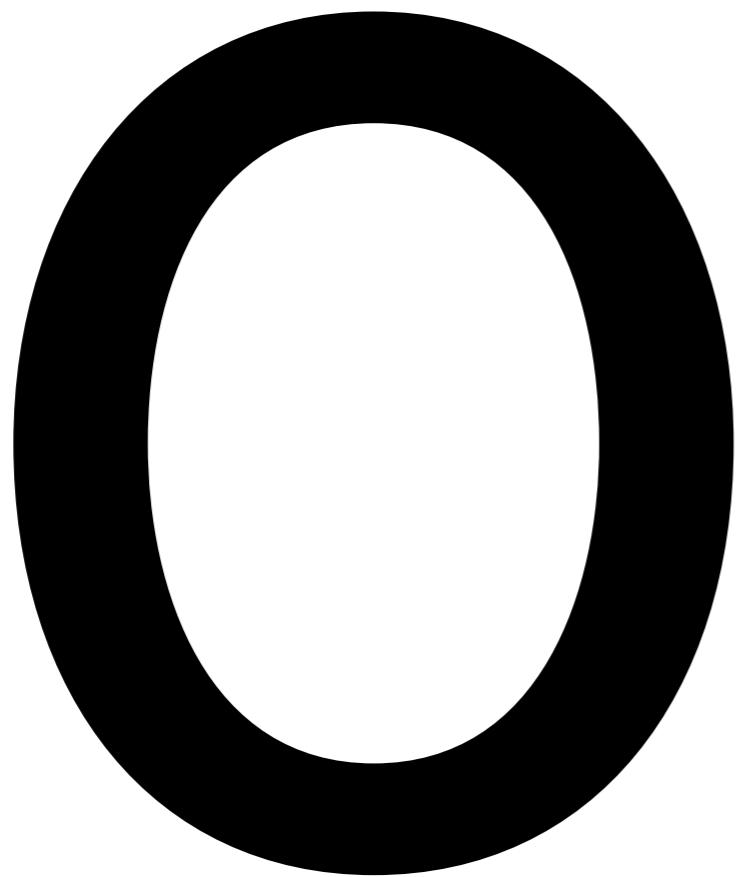


Thank you

USER INTERFACE

The **user interface (UI)**, in the industrial design field of **human-computer interaction**, is the space where interactions between humans and machines occur. The goal of this interaction is to allow effective operation and control of the machine from the human end, whilst the machine simultaneously feeds back information that aids the operators' **decision-making** process. Examples of this broad concept of *user interfaces* include the interactive aspects of computer **operating systems**, hand **tools**, **heavy machinery** operator controls, and process controls. The design considerations applicable when creating *user interfaces* are related to or involve such disciplines as **ergonomics** and **psychology**.

now



anf

anf

Adjektivo *gentonomo septiliono* if jam,
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