



Center for Career Development

by LINKgroup

uvod u ux dizajn

Novi Milenković · UX evangelist · novi.xyz · yskra.com





user-centered dizajn

dizajn i emocije

interakcija čoveka i kompjutera

mentalni model

korisničko istraživanje

intervju

kontekstualni upit

fokus grupa

heuristička procena upotrebljivosti



šta je doživljaj korisnika?



Don Norman

The design of everyday things

User-centered design

Cognitive ergonomics

Nielsen-Norman Group

istraživanje			ideje			planiranje		
competitive audit	data analysis	interviews	priorities	brainstorming	prototype	storyboard	user flow	personas
	sadržaj		izrada			interakcije		
ia	language	accessibility	gestures	ui	responsiveness	waiting times	errors	completed actions
dizajn			detalji			analiza		
layout	images	fonts & colors	micro copy	micro interactions	transitions	kpi	benchmark	ux lab



UX ≠ UI



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korisnik u fokusu



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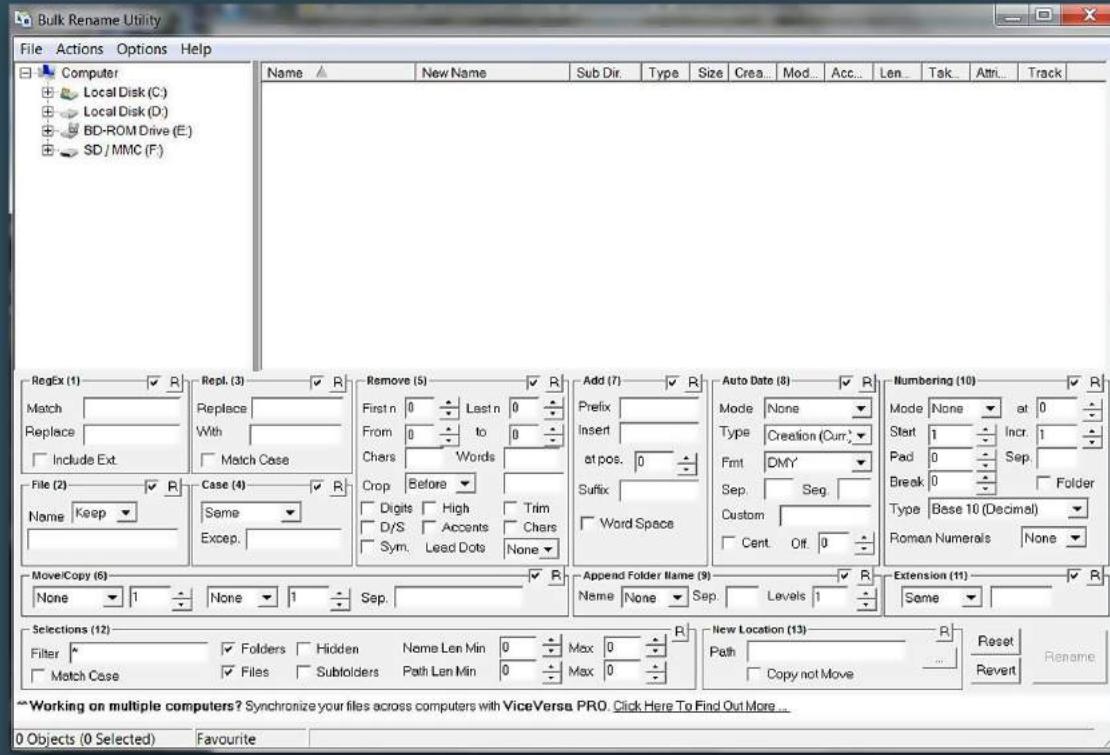
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Please complete the following:

Do you or someone you care for have
Diabetes?



Yes



No



UX dizajner

Nije korisnik!

Nema problema sa egom!

Radoznao

Razmišlja kritički

Rešava probleme

Ima jasnu metodu rada

Pozitivan stav



I don't care about
being right,
I care about success

Steve Jobs, Lost Interview 2005



Ko je korisnik?

Kako koristi proizvod?

Koje probleme ima?



Šta je proizvod?

Koji je cilj proizvoda?

Kako doći do cilja?



merenje doživljaja

Procenat uspešno završenog zadatka

Vreme potrebno za uspešno završen
zadatak

Problemi u upotrebljivosti

Očekivana težina zadatka- Realna težina
zadatka

Nenamerne greške

Subscribers



Unique visitors



Returning visitors

Page views per visit

Visit to order ratio

Registrations

Time on page

Form abandonment

Failed internal search

Referring links

Click through rate

Impressions

by *LINKgroup*



by LINKgroup

Center for Career Development

The screenshot displays the mobile application interface for the Center for Career Development. At the top, there is a header bar with icons for settings, adding a new item, and search. Below the header, the word "Dashboard" is visible. A sidebar menu is partially open, showing "TODAY" and other options like "Arrangements" and "Marketing".

The main content area features a line graph titled "Avg. Session Duration" showing data from October 9 to October 21. The graph shows a general upward trend with some fluctuations. A callout bubble on the graph indicates "App updated".

On the left side, under "FAVORITE PROJECTS", there is a list of items: "Track - Communication", "Track - Core", "Redbooth Marketing", and "The Platform".

On the right side, there is a "Tasks" section with a teal header. It shows a task titled "Arrange travel for team" under "TODAY (2)". The task details mention "Marketing Project - Tradeshows" and is due "Today".

At the bottom of the screen, there are several notification icons: a blue circle with a white number "2", a grey circle with a white number "1", a red circle with a white number "3", and a gear icon.

Date	Avg. Session Duration
Oct 9	~1.5 hours
Oct 10	~1.6 hours
Oct 11	~1.7 hours
Oct 12	~1.8 hours
Oct 13	~1.9 hours
Oct 14	~2.0 hours
Oct 15	~2.1 hours
Oct 16	~2.2 hours
Oct 17	~2.1 hours
Oct 18	~2.0 hours
Oct 19	~1.9 hours
Oct 20	~1.8 hours
Oct 21	~1.9 hours
Oct 22	~2.0 hours
Oct 23	~2.1 hours
Oct 24	~2.0 hours



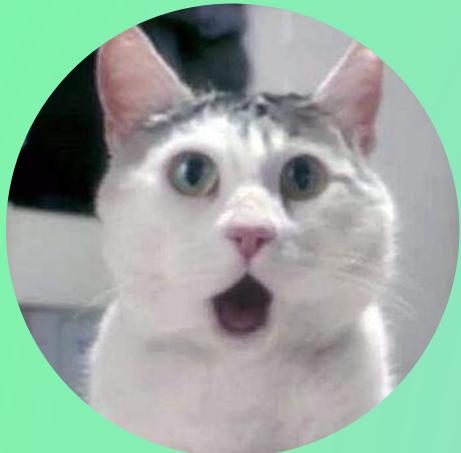
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emocije i

dizajn



46.1% determine how trustworthy site is based on looks

<http://simson.net/ref/2002/stanfordPTL.pdf>

System's aesthetics affects the perceptions of usability

http://www.ise.bgu.ac.il/faculty/noam/papers/00_nt_ask_di_iwc.pdf

Rejected a site as not trustworthy, 83% of comments related to design

<http://dl.acm.org/citation.cfm?id=985776>

Testing same functionality with different appearances, users cited more aesthetically pleasing site worked better

http://www.sigchi.org/chi95/proceedings/short_ppr/mk_bdv.htm



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Web King
Internet Services LLC

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[HOME](#) [LOCATIONS](#) [REWARDS MEMBER LOGIN](#)

[HOTEL OVERVIEW](#) [ROOMS & SUITES](#) [DINING](#) [SPA](#) [AREA & ACTIVITIES](#) [MEETINGS & WEDDINGS](#)

[OFFERS](#) [RESERVATIONS](#)

*Arrive: *Depart:

*Rooms: *Guests: My dates are flexible

[PHOTO GALLERY](#)





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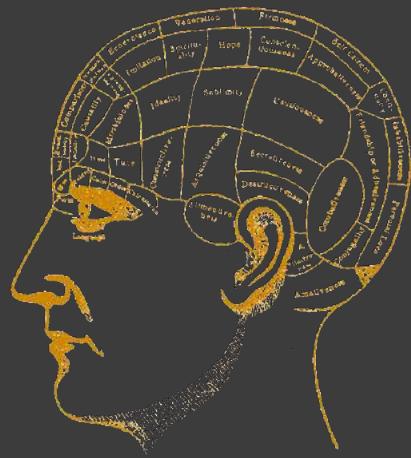




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HCI



scan 79% - read 16%

highlighted keywords and hyperlinks

meaningful sub-headings

bulleted lists

one idea per paragraph

the inverted pyramid style

half the word count or less

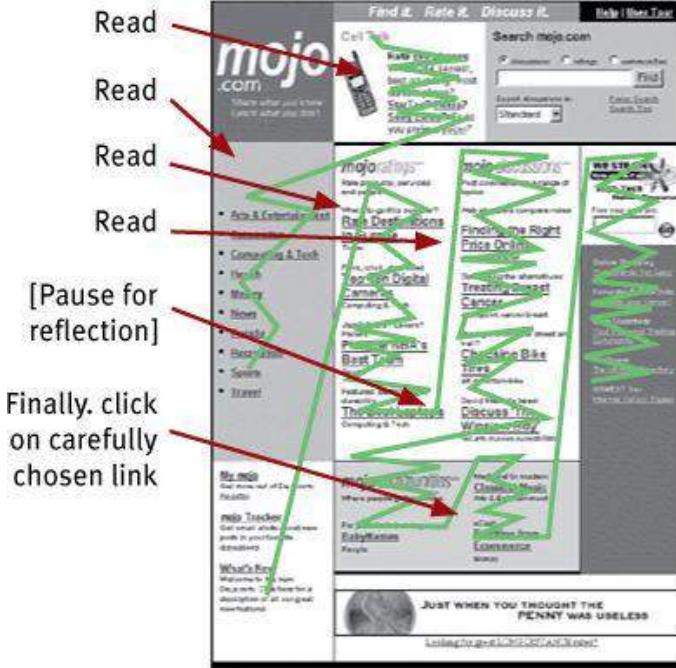
[applying-writing-guidelines-web-pages](#)



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WHAT WE DESIGN FOR...



THE REALITY...



Look around feverishly for anything that

- is interesting, or vaguely resembles what you're looking for, and
- is clickable.

As soon as you find a halfway-decent match, click.

If it doesn't pan out, click the Back button and try again.



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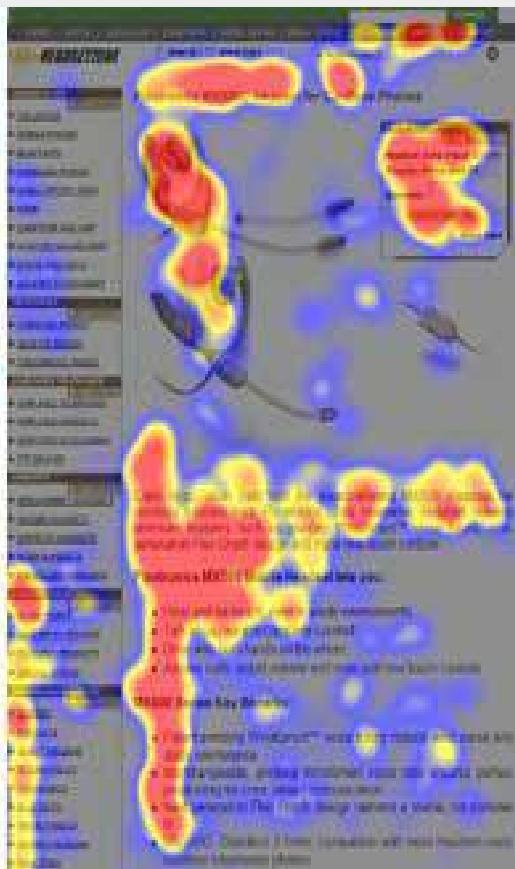
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banner blindness

Most users don't notice anything that resembles banner

14% of respondents recalled the last display ad they saw

2,8% reported ads were relevant
benway_lane_banner_blindness



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"Vonage is the leading VoIP provider."

BaseballLibrary.com

George Brett

George Brett's statistics and career highlights.

George Brett's statistics:

Season	Team	AB	R	HR	BB	K	SLG
1979	Kansas City Royals	500	150	20	50	150	.300
1980	Kansas City Royals	500	160	25	55	150	.320
1981	Kansas City Royals	500	170	30	60	150	.340
1982	Kansas City Royals	500	180	35	65	150	.360
1983	Kansas City Royals	500	190	40	70	150	.380
1984	Kansas City Royals	500	200	45	75	150	.400
1985	Kansas City Royals	500	210	50	80	150	.420
1986	Kansas City Royals	500	220	55	85	150	.440
1987	Kansas City Royals	500	230	60	90	150	.460
1988	Kansas City Royals	500	240	65	95	150	.480
1989	Kansas City Royals	500	250	70	100	150	.500
1990	Kansas City Royals	500	260	75	105	150	.520
1991	Kansas City Royals	500	270	80	110	150	.540
1992	Kansas City Royals	500	280	85	115	150	.560
1993	Kansas City Royals	500	290	90	120	150	.580
1994	Kansas City Royals	500	300	95	125	150	.600
1995	Kansas City Royals	500	310	100	130	150	.620
1996	Kansas City Royals	500	320	105	135	150	.640
1997	Kansas City Royals	500	330	110	140	150	.660
1998	Kansas City Royals	500	340	115	145	150	.680
1999	Kansas City Royals	500	350	120	150	150	.700
2000	Kansas City Royals	500	360	125	155	150	.720
2001	Kansas City Royals	500	370	130	160	150	.740
2002	Kansas City Royals	500	380	135	165	150	.760
2003	Kansas City Royals	500	390	140	170	150	.780
2004	Kansas City Royals	500	400	145	175	150	.800
2005	Kansas City Royals	500	410	150	180	150	.820
2006	Kansas City Royals	500	420	155	185	150	.840
2007	Kansas City Royals	500	430	160	190	150	.860
2008	Kansas City Royals	500	440	165	195	150	.880
2009	Kansas City Royals	500	450	170	200	150	.900
2010	Kansas City Royals	500	460	175	205	150	.920
2011	Kansas City Royals	500	470	180	210	150	.940
2012	Kansas City Royals	500	480	185	215	150	.960
2013	Kansas City Royals	500	490	190	220	150	.980
2014	Kansas City Royals	500	500	195	225	150	1.000

New York

FOOD & RESTAURANTS

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Bright Light

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Science

Australians Receive Nobel for Bacterium Work

TOP 10

Most E-mailed Articles

10% OFF

Do You Have What it Takes?



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RECIPES FOR HEALTH

Pasta Dishes With Vegetables as Stars

Perciatelli With Baby Broccoli, Tomatoes and Anchovies



Log in to see what your friends are sharing Log In With Facebook
on nytimes.com. Privacy Policy | What's This?

What's Popular Now

Children and Guns: The Hidden Toll



Changed the Way Americans Cook Italian Food



 Well Tara Parker-Pope
on Health

Breast-Feeding Services Lag the Law
September 30, 2013, 5:03 PM

Unequal Pain Relief in the Emergency Room
September 30, 2013, 10:19 AM

A Youthful Glow, Radiating From Within
September 30, 2013, 12:01 AM



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To:

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Subject (Optional)

Message (Optional)

Free option:

Verify recipient identity

Pay-per-use options:

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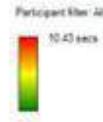
[FREE TRIAL »](#)

[BUY IT NOW »](#)



Something **BIG** is here...
The latest in content collaboration for the extended enterprise.

workstream
by youSENDit



Engage for the
most sensitive skin.

Introducing Baby Fresh™, the highest absorbency natural-blend cotton diaper. Baby Fresh™ provides cotton soft, extra thick, gel-free protection for your baby's sensitive skin. The chlorine-free materials and fragrance-free ingredients in Baby Fresh™ are non-toxic and non-irritating. Clinically tested and dermatologist recommended for babies with allergies and sensitive skin.

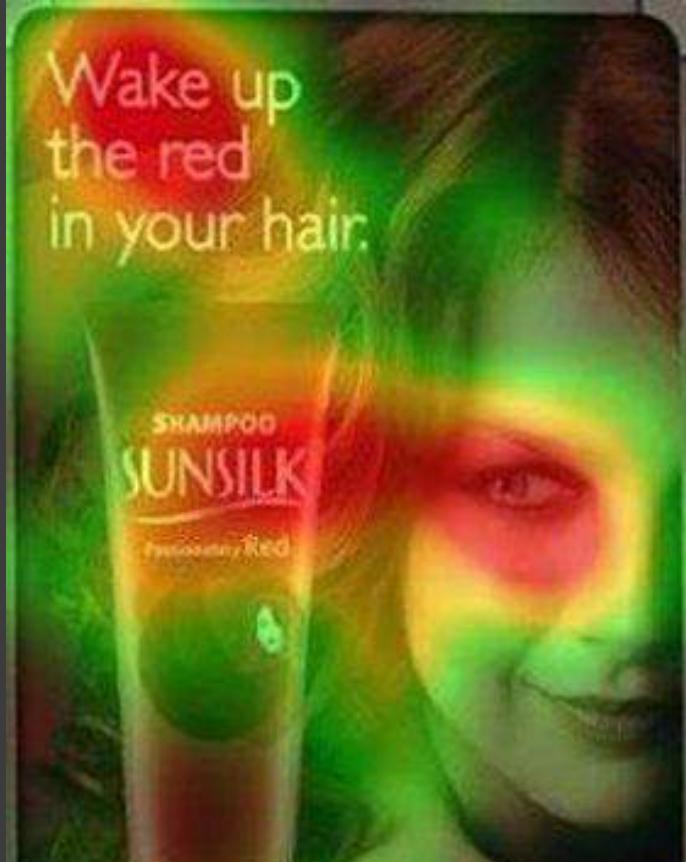


TM



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mentalni model



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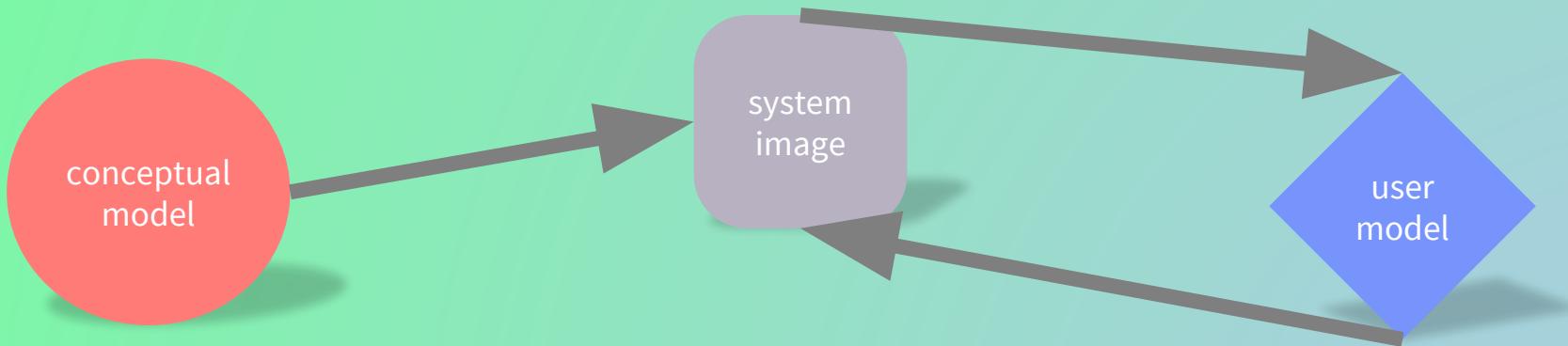
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cognitive ergonomics



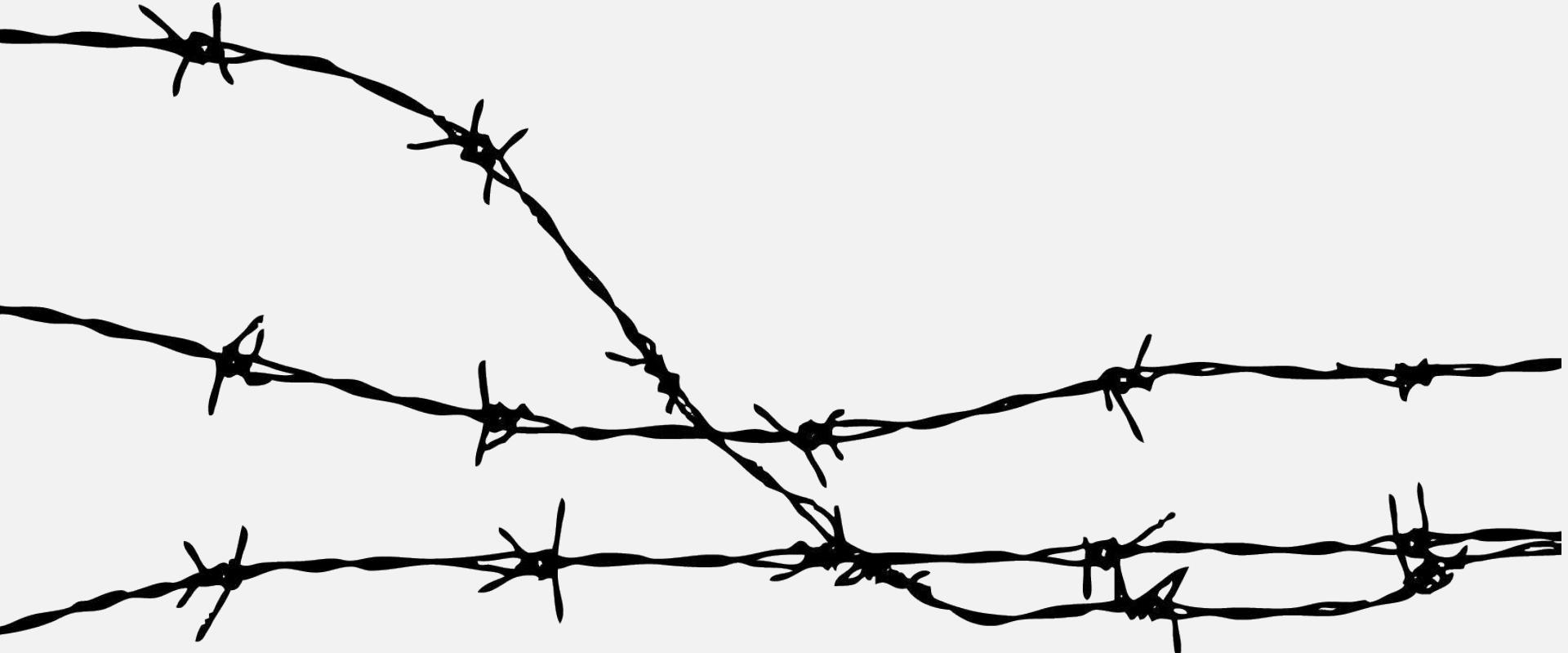
AFFORDANCE - karakteristika objekta koja nam govori da možemo da izvršimo određenu akciju

SIGNIFIER - znaci ili obeležja koja opisuju osobine objekta ili mogući način korišćenja



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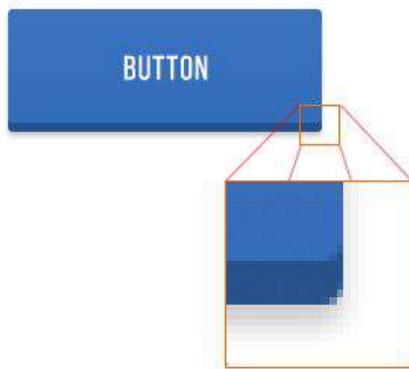




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FRONT VIEW



SIDE VIEW



PUSHED BUTTON



FRONT VIEW



SIDE VIEW





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Report

Report

Report

Report



BEFORE FLAT

Elements with strong signifiers



Clickable?

Probably yes

Elements without signifiers



Probably no

AFTER FLAT

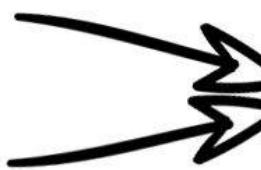
Clickable?

Elements with strong signifiers



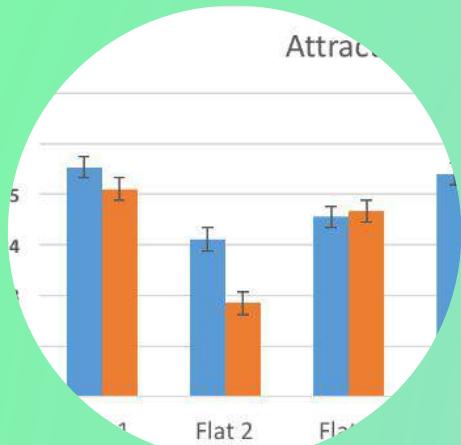
Probably yes

Elements with weak signifiers



Maybe?

Elements without signifiers



flat design

Korisnici od 18-25 godina preferiraju flat dizajn

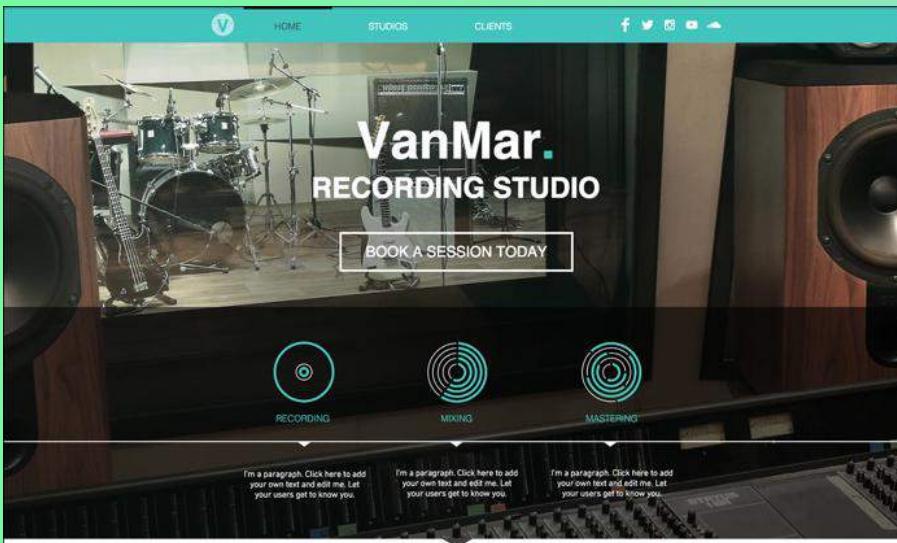
Svi korisnici ne prepoznaju šta je moguće
kliknuti

[young-adults-flat-design](#)



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VanMar.
RECORDING STUDIO

BOOK A SESSION TODAY

RECORDING MIXING MASTERING

I'm a paragraph. Click here to add your own text and edit me. Let your users get to know you.

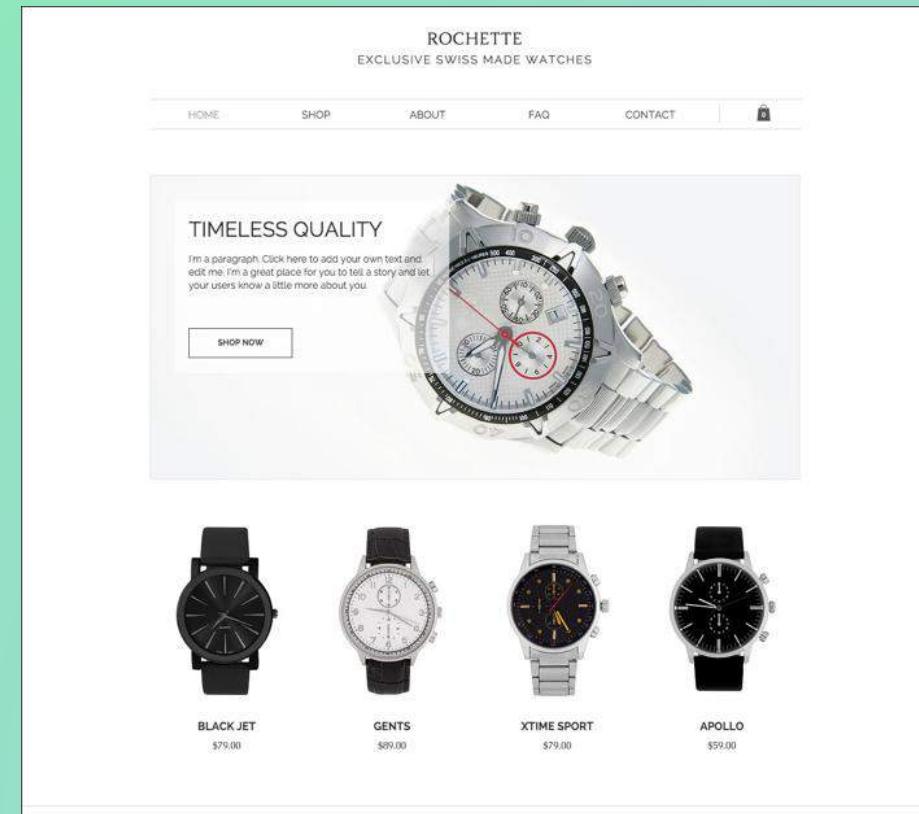
I'm a paragraph. Click here to add your own text and edit me. Let your users get to know you.

I'm a paragraph. Click here to add your own text and edit me. Let your users get to know you.

THE STUDIO

I'm a paragraph. Click here to add your own text and edit me. It's easy. Just click "Edit Text" or double click me to add your own content and make changes to the font. Feel free to drag and drop me anywhere you like on your page. I'm a great place for you to tell a story and let your users know a little more about you.





ROCHETTE
EXCLUSIVE SWISS MADE WATCHES

HOME SHOP ABOUT FAQ CONTACT 

TIMELESS QUALITY

I'm a paragraph. Click here to add your own text and edit me. I'm a great place for you to tell a story and let your users know a little more about you.

SHOP NOW



BLACK JET
\$79.00

GENTS
\$89.00

XTIME SPORT
\$79.00

APOLLO
\$59.00



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law of pragnanz

Ljudi preferiraju stimulanse, stvari i doživljaje koji su uređeni, pravilni, simetrični i jednostavniji

Nikole
Pašića 49
018 4155 222

Bulevar
Nemanjića 25a
PC Zona III
018 4155 222
066 8 220 220

Nečini placanja

KREDITI

Gospodin sa popustom

SuperCard kartica

Čekovima bez kamate

Platne kartice

eKontakt

Informacije

Prodaja

Servis

Web

O nama

JakovSystem d.o.o.

Isporuka

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Mrežni u Jakovsystemu

ePopusti

ime

email

PRIJAVI SE

BEOGRAD
Bulevar kralja
Aleksandra 171
011 630 50 33

PARAĆIN

Save
Kovačevića bb
035 569 695

PROKUPLJE

Ratka
Pavlovića 54
027 333 525

plaćati
popust

Početne

Kućni aparati

Service IT opreme

WEB design

Korporativna prodaja

Partneri

Prijava...



CALL CENTAR

018/4155 222

011/630 50 33

KATALOG

Pronađite katalog

VAŠA KORPA

Pogledajte sadržaj

Lenovo

IdeaPad 300-15IBR

Display: 15.6" HD LED Glossy

Procesor: Intel® N3700 Quad Core 2.4 GHz

Grafička kartica: Intel HD Graphics 520

RAM memorija: 4GB DDR3 1600 MHz

HARD disk: 500 GB

Garancija: 24 meseci

AKCIJSKA CENA!

UŠTEDA: 4.000

34.990



Laptop
računari



Desktop
računari



Tablet
računari



Televizori



Klima



Kući

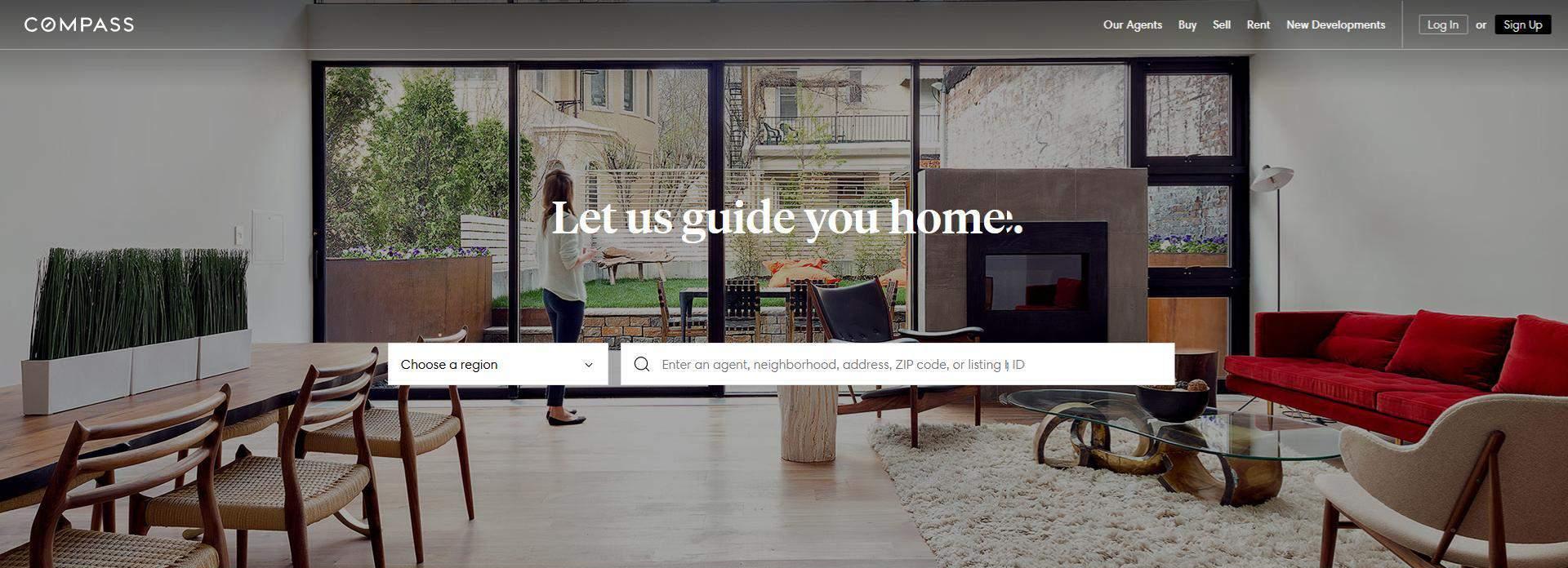


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Veš





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[See All Destinations](#)

Explore the world

... where people are traveling, all around the world.





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istraživanje





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Who is the user???

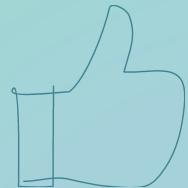


How does he use product? ???



What is the problem?

How to solve problem?



What are mental models?

What is success?



quantitative

vs

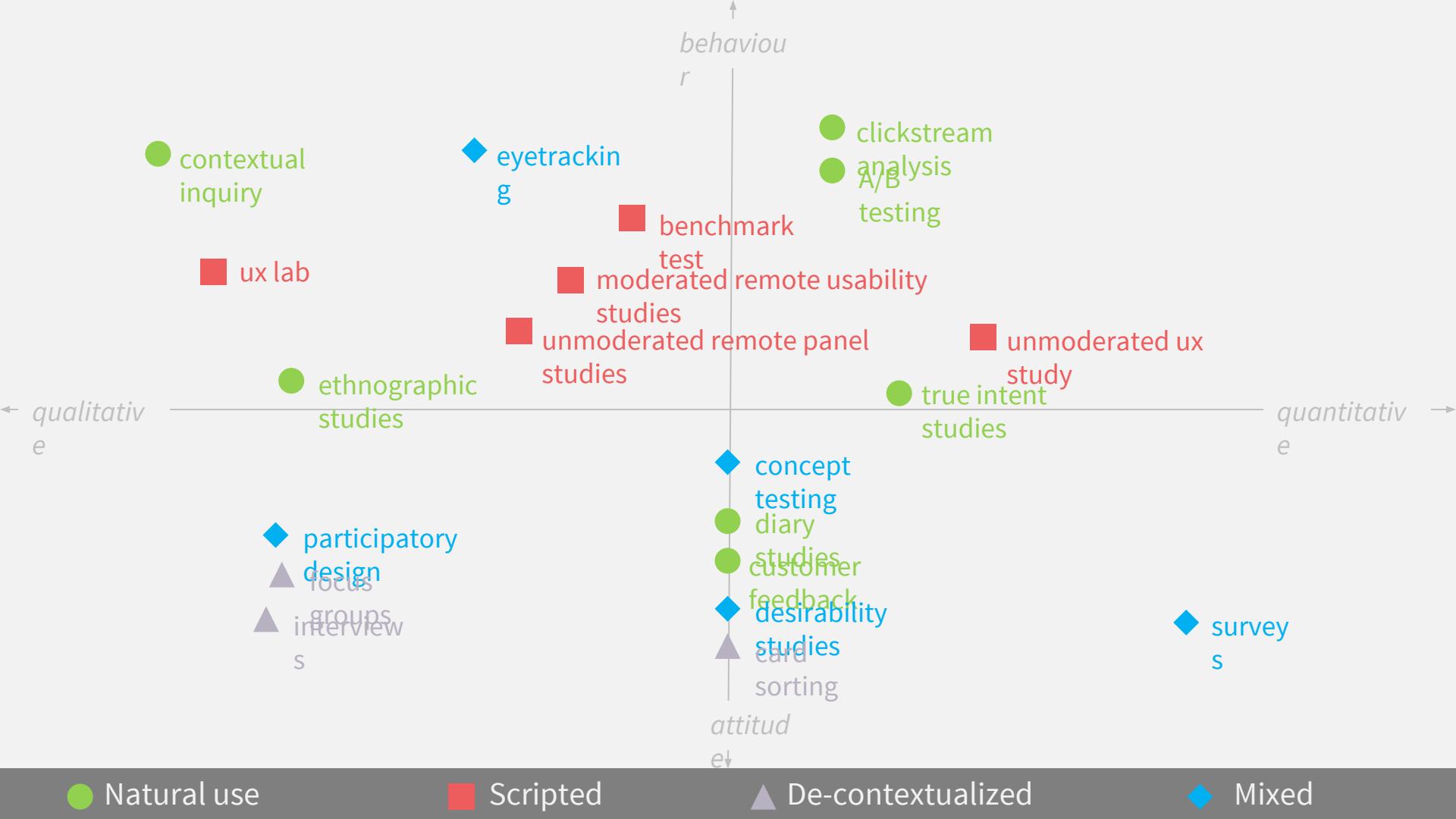
qualitative

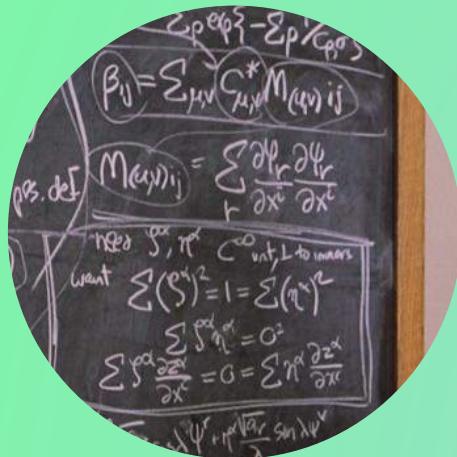
behavioral

vs

attitudinal







$$L = P(1 - (1 - p)^n)$$

L – verovatnoća da korisnik primeti problem (80%)

P – broj problema (1)

p – učestalost pojavljivanja problema (30%)

n – broj korisnika (?)

A mathematical model of the finding of usability problems,
Nielsen, Jakob and Thomas K. Landauer



intervju

Intervju nije test

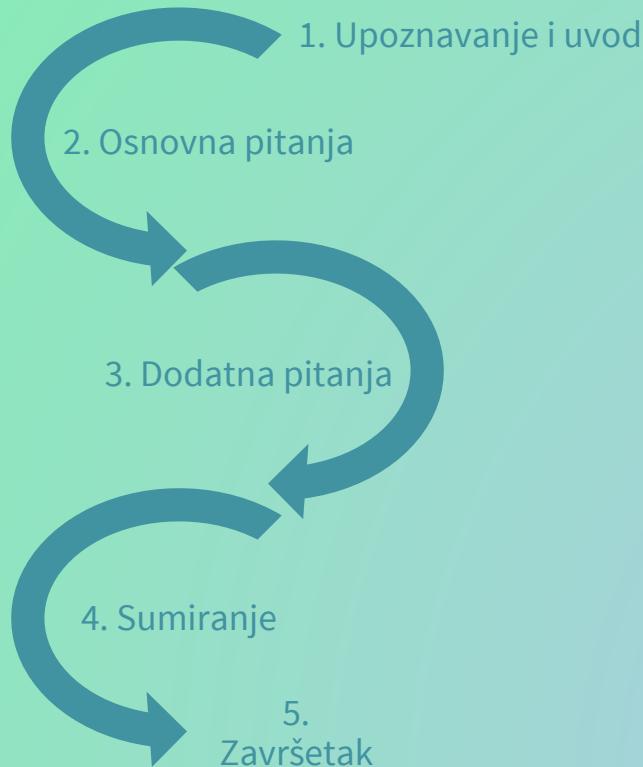
Korisnik nije UX dizajner

Spekulacije nisu korisne

Previše priče škodi

Bez navođenja na odgovore

Poštovanje privatnosti i mišljenja
korisnika





fokusna grupa

- Različite perspektive na jednom mestu
- Različite perspektive na jednom mestu



kontekstualni upit

Poseti korisnika na poslu, posmatraj dok radi, razgovaraj sa korisnikom o poslu

Contextual Design, Beyer and Holtzblatt



kontekstualni upit

Korisnik je „ekspert“

Razvoj obostranog razumevanja

Otkrivanje skrivenog aspekta posla, koji je za korisnika podrazumevan

Identifikacija ograničenja



hawthorne effect

Osobe modifikuju ili popravljaju aspekte ponašanja kada su svesne da ih posmatraju

[Hawthorne_effect](#)



kvalitet odgovora

Korisnik se oseća podređeno

Izbegava kontakt očima

U skupljenom položaju i okreće telo na stranu

Drži predmet između sebe i intervjueru

Brzo menja izraze lica i dodiruje kosu, lice, delove tela

Govori tiho

Izvinjava se

...



crossed hands, fingers, legs...

head & shoulders low...



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repeating the same movement...



touching face, hair, body...

quickly moving hands, changing facial
expressions...



open arms, hands, palms...

chin high, legs apart with feet outwards...



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shaping with hands...



opuštanje korisnika

Prirodni osmeh

Blago nagnuto telo ka korisniku

Bez prekrštenih ruku, nogu, prstiju...

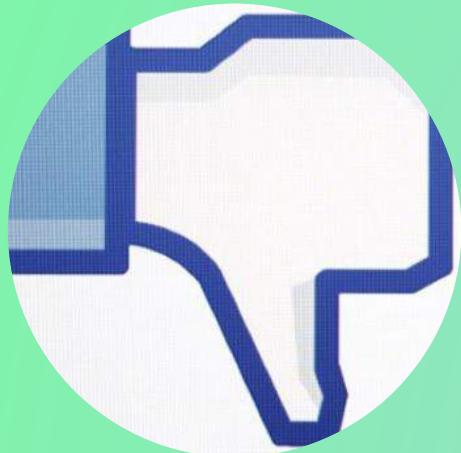
Traženje dozvole pre prelaska na novo pitanje/temu

Pozicija sedenja malo niža od stolice korisnika

Dovoljno prostora između korisnika i intervjueru

Bez previše kontakta očima

Intervjuer izgleda kao korisnici



Pronalazak ispitanika

Nepouzdani stavovi i sećanje

Hawthorne effect

Vremenski zahtevno

Korisnik može biti stidljiv ili sumnjičav

Korisnik ne želi da ga posmatraju dok greši

Previše podataka



Jakob Nielsen

Usability heuristics

Jakob's law

Test 5 users

Nielsen-Norman Group



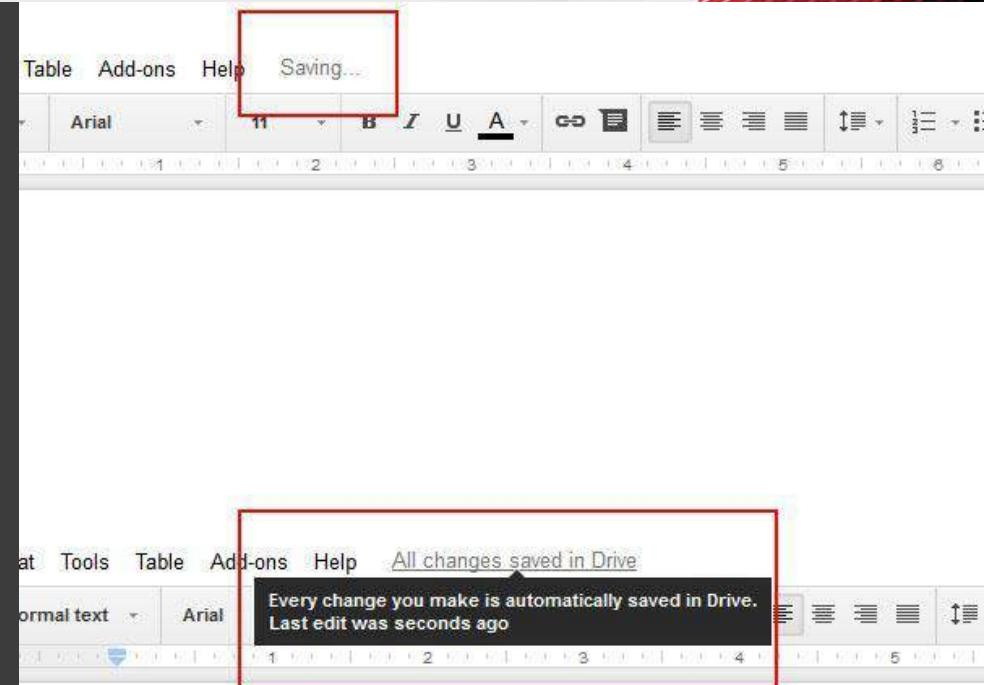
usability heuristics



- Visibility of system status
- Match between system and real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help users recover from errors
- Help and documentation



visibility of system status





match between
system & the real
world

amazon.com

Qty: 1 ▾

Yes, I want FREE Two-Day Shipping with Amazon Prime

Include 2-Year Drops & Spills Protection for \$20.40

Quantity: 1 ▾

 Add to Basket

Turn on 1-Click ordering

Add to Wish List

Ship to:

Select a shipping address: ▾

Add to List



user control & freedom



Review and sell your product

Your listing is not complete until you click "Submit your listing".

[Submit your listing](#)

(You can always add information later)

Product Information

Product Name:	The Fifth Elephant (Discworld)
ASIN:	0552147206
Condition:	Used - Very Good
Condition Note:	extremely good condition, only listened to once.
Your price:	£1.90
Quantity:	1
Your shipping methods:	Domestic Only
Amazon.co.uk's Fees (if sold):	£1.47 for Domestic Only *
Postage charge to buyer on your behalf (if sold):	£2.75 for Domestic Only *
VAT on Amazon.co.uk's fees:	£0.21 for Domestic Only *
Total you will receive (if sold):	£2.97 for Domestic Only *
(Read Amazon.co.uk's Fees & Pricing guidelines and Postage Credits & Delivery)	
* - Actual amounts may differ, depending on the final delivery address.	

[Submit your listing](#)

(You can always add information later)



consistency &
standards





error prevention

Your message has been sent. [Undo](#) [View message](#)

Gmail ▾

COMPOSE

Inbox (1)

- Starred
- Important
- Chats
- Sent Mail
- Drafts (2)
- All Mail

Primary Social Pro... 2

The page at <https://mail.google.com> says:

It seems like you forgot to attach a file.

You wrote "I have attached" in your message, but there are no files attached. Send anyway?

OK Cancel

This Drive file isn't shared with the recipient



recognition rather
than recall

Your Recently Viewed Items and Featured Recommendations.

You viewed

View or edit your viewing history

Continue Shopping: Customers Who Bought Items In Your Recent History Also Bought

 Kindle Fire HDX 8.9", HDX... ★★★★★ (5,194) \$379.00 ✓Prime	 Aeris Universal 7-8 Inch Tablet... ★★★★★ (176) \$26.00 ✓Prime	 For Dell Venue 7 Teal Orange... ★★★★★ (1) \$10.48	 SanDisk Ultra 32GB MicroSDHC... ★★★★★ (13,612) \$18.60 ✓Prime	 Kingston Digital 16 GB Class 4... ★★★★★ (4,289) \$8.27 ✓Prime
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Page 1 of 10

Arno Pro

Ayuthaya

Baghdad

✓ BANK GOTHIC

Baskerville

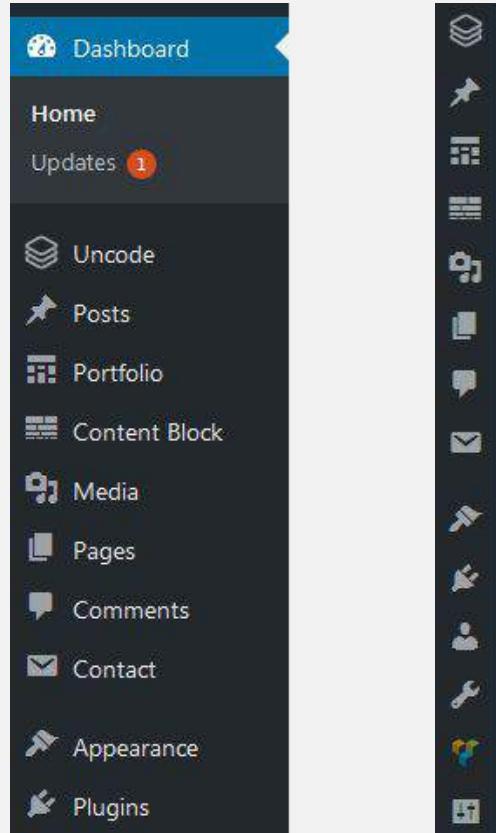
Baskerville Old Face

Bastion

Batang



flexibility & efficiency
of use





Center for Career Development

by LINKgroup

aesthetic



help users recognize,
diagnose, & recover
from errors



Sorry, we couldn't find an account with that username. Can we help you recover your [username?](#)

Username

[I forgot](#)

Password

[I forgot](#)

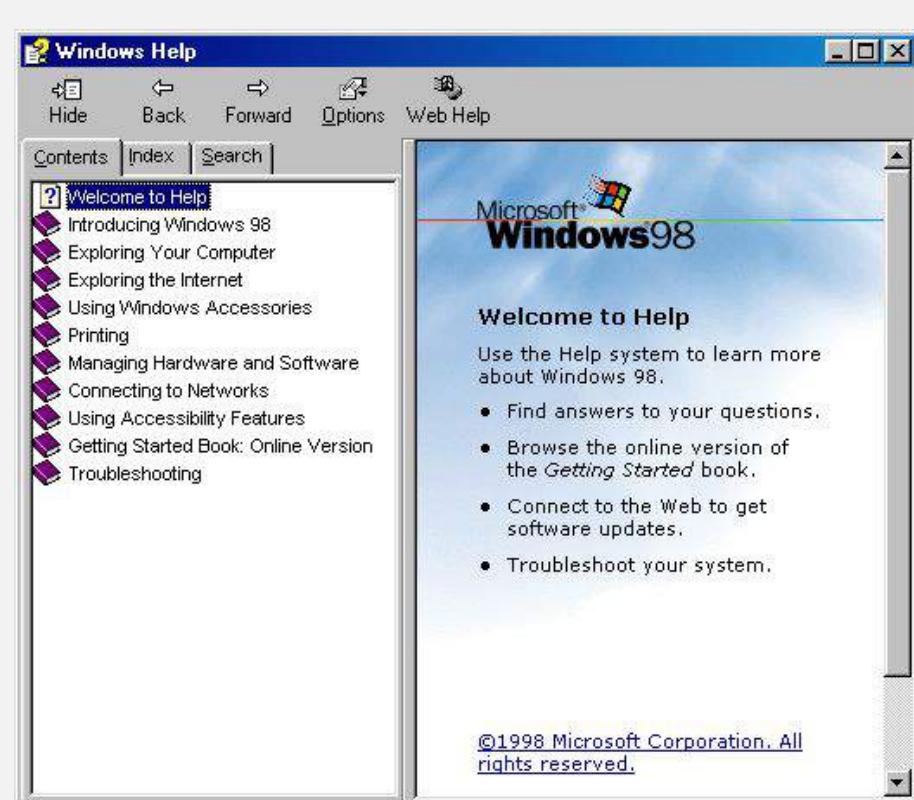
 Show

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Stay logged in



help & documentation





pitanja?