

# Exercise: Applying Heuristics

Human Computer Interaction

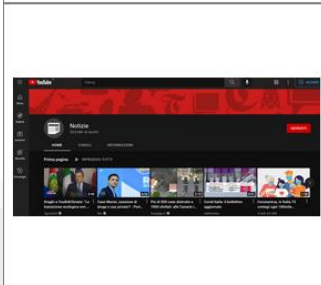
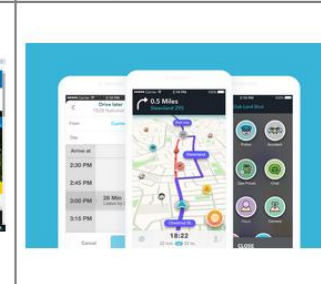
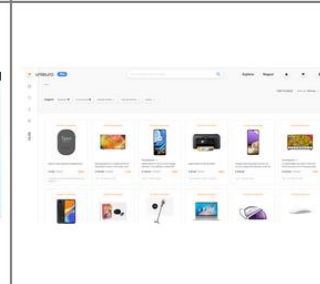
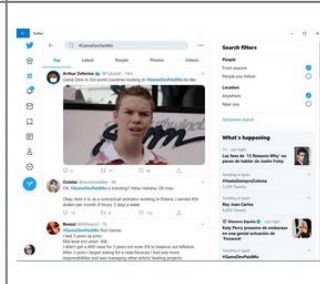
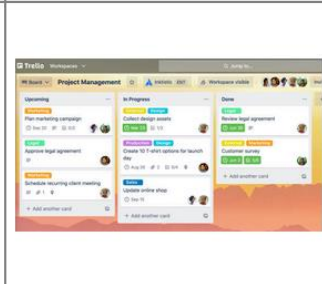
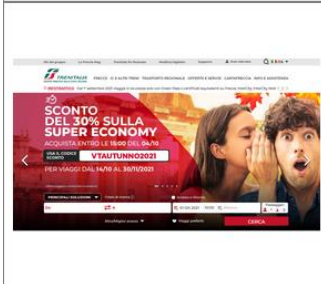
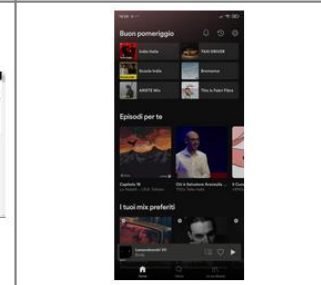
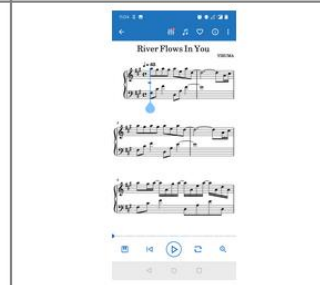
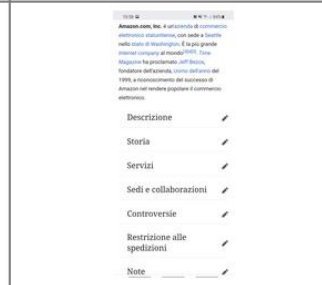
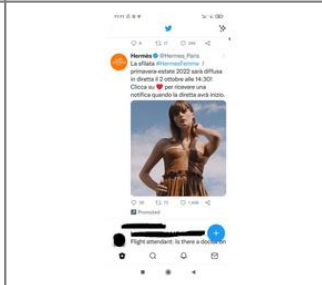
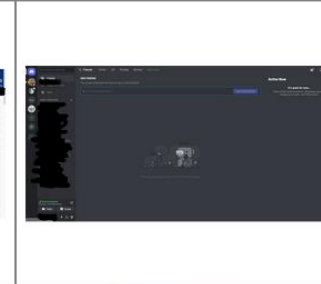
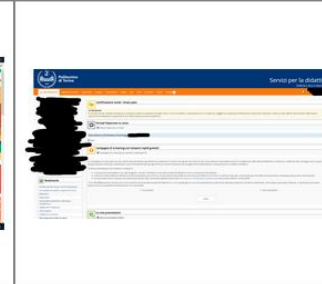
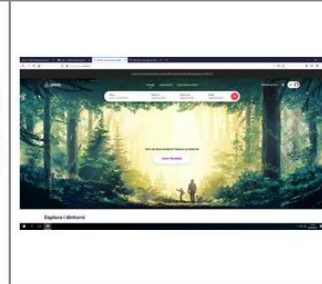
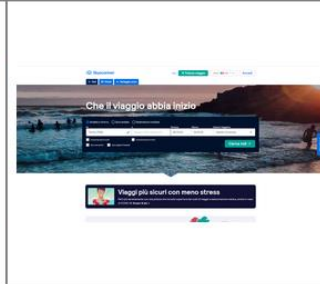
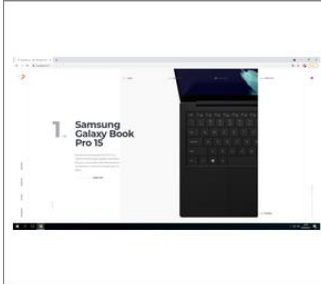
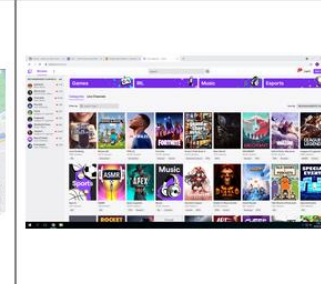
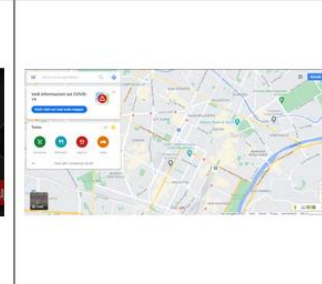
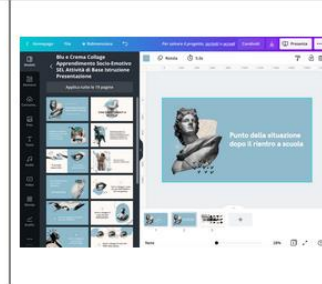
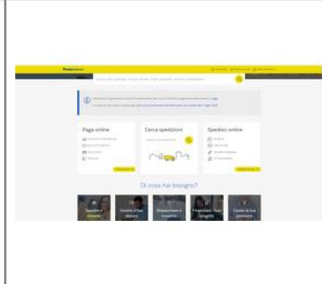
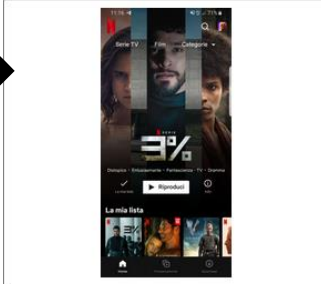
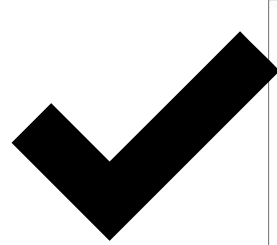
Luigi De Russis, Fulvio Corno

Academic Year 2021/2022

# About your submissions

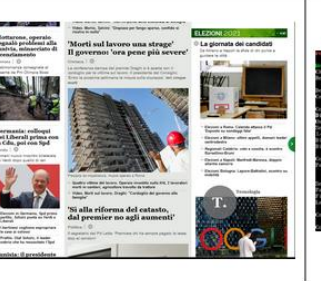
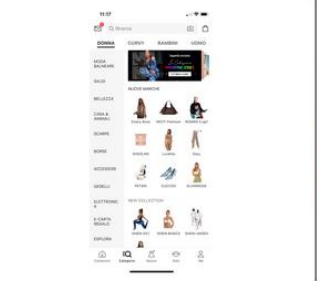
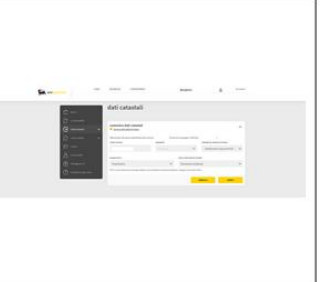
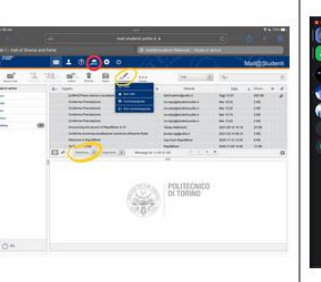
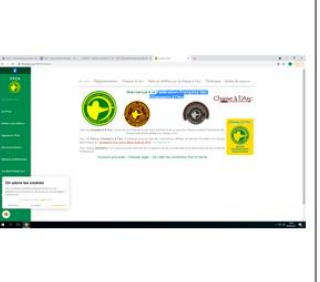
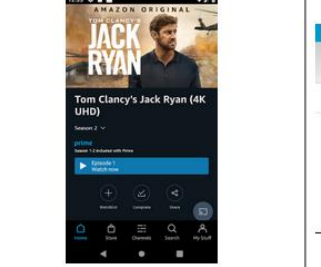
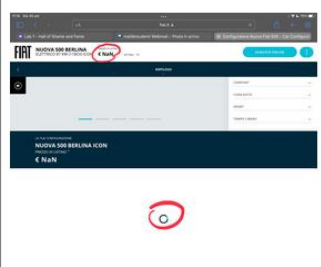
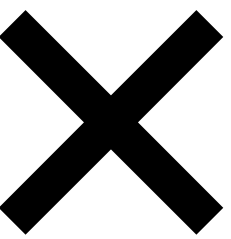
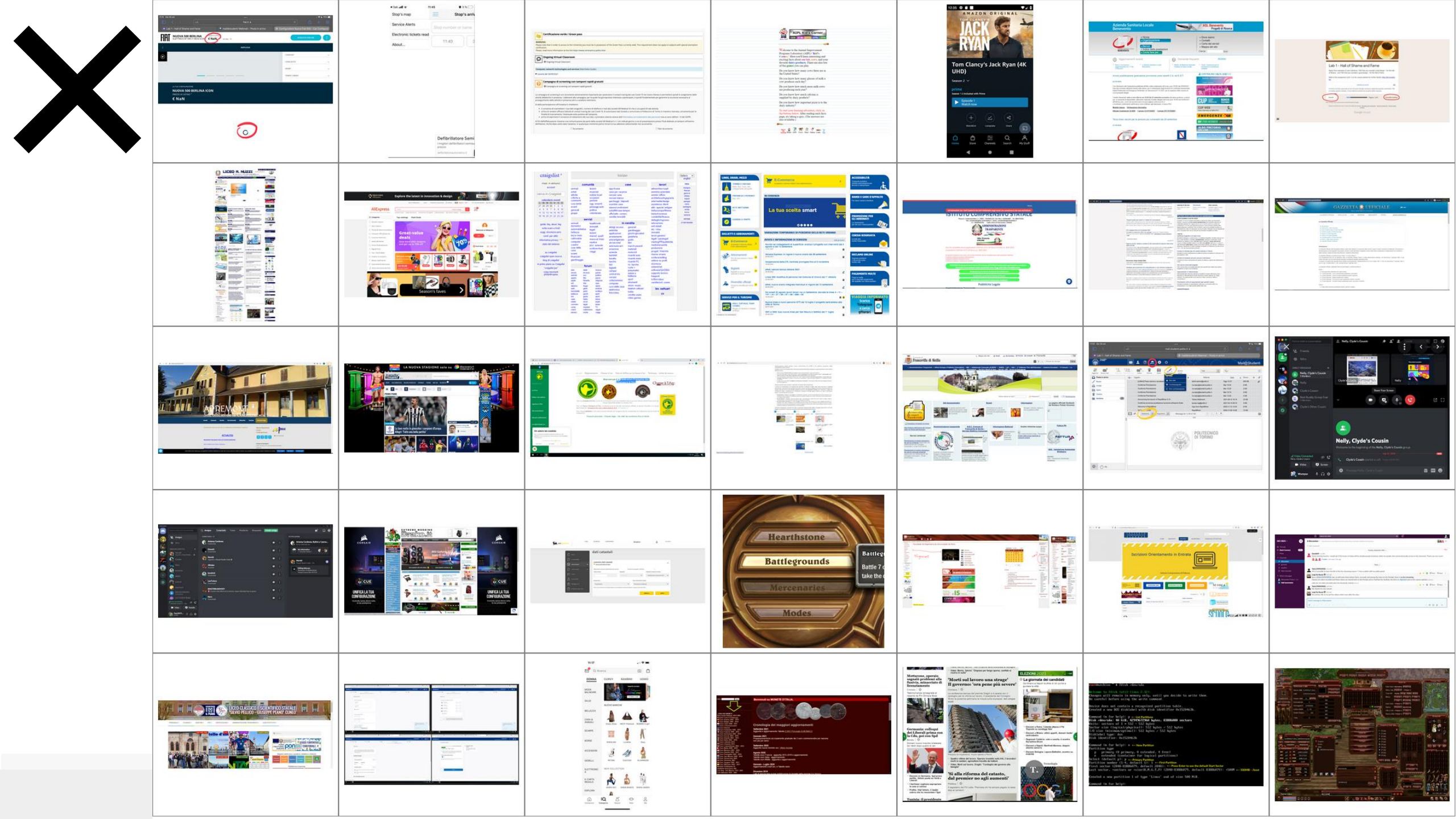
- ✓ 66 submissions in the Hall of Fame
- ✗ 66 submissions in the Hall of Shame

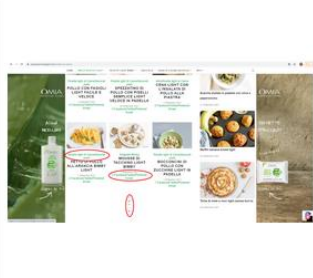
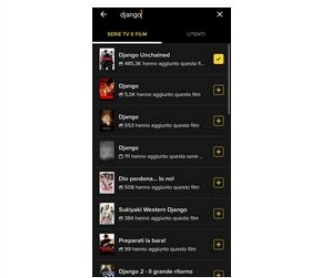
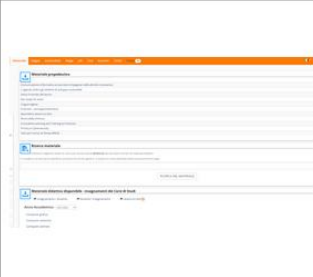
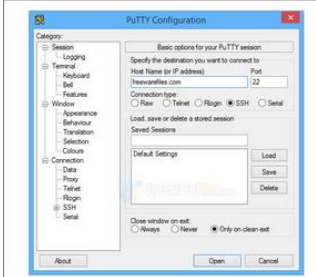
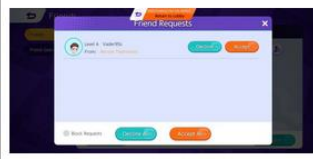
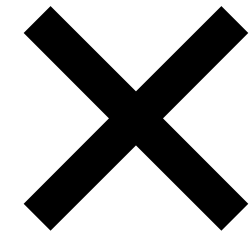




# ✓ Reasons for inclusion

- easily find the different categories
- have a clear idea
- have a clear vision of what you can do
- Everything is in the right place
- Quick Learning curve
- very clear
- easy to navigate
- categories well organized
- timeline very intuitive
- minimalistic
- simple to find what you are looking for
- has a notification bell
- few commands
- immediately clear what the user have to do
- filter for the search specific and clear
- Intuitive
- Various options
- All can be seen in the proper page sections
- different tabs for different functions
- Many available functionalities
- Animations tell you what's happening
- simplicity
- well organized
- Clean interface
- can go back if made a mistake
- directly offers a view of the map
- the user is step by step guided
- Orderly
- Easy to understand categories
- Easy descriptions/recap
- Main page corresponds to main goals
- well organized and minimal
- can find everything in a short time
- gives you all the information
- well organized
- easy to understand
- Simple, effective, and enjoyable; intuitive
- The user, without thinking, knows exactly what he has to do
- Low density of information, intuitive buttons and filters.





# ✘ Reasons for inclusion

- no explicit button
- Field names are not clear
- too many elements in a single page
- difficult to find things
- Button colors are unconventional
- Unexpected action when clicking on a button
- hard to find how to ...
- not very intuitive
- lot of tools to use
- difficult to find the utility buttons
- Different buttons open the same menu
- Some sections cannot be found from the menu
- too many elements on the screen
- not clear where to look
- services for the user are hard to find
- Multi-group login model is confusing
- Can't see all the information
- too many items on screen
- number of clicks too high
- Channels not automatically added
- layout is messy & random
- Too much is shown
- Inconsistent behavior of buttons
- overloaded information in the same window
- difficult to understand that actions are mutually exclusive
- Navigation is just a list of elements
- Lots of useless info
- different sections are organized with different UI
- Crowded – no spacing
- No categories for finding products
- top image is too big
- too many elements in the page
- When you click it doesn't give the impression something has changed
- limited to a skinny column
- text is hard to read
- Apparent links are not clickable
- too messy / too many different things
- too outdated
- can't really understand immediately where to go
- I feel like I'm getting scammed
- not organized
- easy to click on the wrong category
- user can't understand where to go to for login (wrong name)
- Incomplete translation
- too much information, confusing
- useful and commonly used materials are mixed with less relevant elements
- high density of information and text



# About your submissions

- High creativity and wide spectrum of applications
- Many usability problems found at first glance
- Some “easy targets” to shame (universities, public services, ...)
- Some easy targets to fame (multi-billion enterprises)
- Some websites are listed in **both** categories
- You found hard to synthesize the application goal in one sentence
- Some screenshots were not significant (home page, registration screen, marketing screenshot, ...)
- Some repetitions (friends who submitted the same material)



# 10 Nielsen's Usability Heuristics

- #1: Visibility of system status
- #2: Match between system and the real world
- #3: User control and freedom
- #4: Consistency and standards
- #5: Error prevention
- #6: Recognition rather than recall
- #7: Flexibility and efficiency of use
- #8: Aesthetic and minimalist design
- #9: Help users recognize, diagnose, and recover from errors
- #10: Help and documentation

# Overview

Type	✗	✓
Mobile App	5	19
Website	44	45
Desktop app	3	

Category	✗	✓
Health		1
Shop/eCommerce	7	12
Public/University/School	25	4
Chat/Mail/Office	7	8
Travel/Maps/AirBnb	4	12
Smart Home / System	2	1
Gaming	4	1
Money		3
Learning/Documentation	2	4
Eating/Food	1	2
Social Network	1	3
Sports	2	2
Streaming TV / Music / Video	3	7
Library/Resources/News	6	4

# Is there a pattern?

## (Who values usability the most?)

- Public vs. Private institutions
- For-profit vs. Non-profit
- Startups vs. Corporations
- Incumbent vs. Emerging
- Work vs. Entertainment
- On-line vs. Off-line business
- ...

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# Examples

Let's apply Nielsen Heuristics and Visual Design principles



- » Home
- » Organizzazione aziendale
- » Servizi
- » Indice delle prestazioni
- » Come fare per...

- » Dove siamo
- » Contatti
- » Carta dei servizi
- » Mappa del sito

Cerca

## Aggiornamenti recenti

- » Nuovo Coronavirus - aggiornamento ore 17 del 21/06/2021
- » L'Azienda Sanitaria Locale Benevento

## Domande frequenti

- » Medico di Medicina Generale - Pediatra di Libera Scelta
- » Ticket - Esenzione per le prestazioni di assistenza sanitaria

[Archivio](#)

## Avviso pubblicazione graduatoria provvisoria zone carenti C.A. ed E.S.T.

[21-09-2021]

Con riferimento alla Graduatoria pubblicata all'Albo online unitamente all'Avviso, prot. 97283 del 20/09/2021 riservato ai medici utilmente inseriti nella stessa, per il conferimento degli incarichi di Continuità Assistenziale, Istituti Penitenziari ed Emergenza Territoriale con decorrenza 01.10.2021, per la copertura delle carenze di cui ai prospetti allegati.

I medici interessati, entro e non oltre le ore 12,00 del 23 settembre prossimo dovranno produrre, a mezzo pec, la domanda di disponibilità, utilizzando l'apposito modello allegato all'Avviso prot. 97283 del 20/09/2021, all'indirizzo pec: [continuita.assistenziiale.emergenza@pec.aslbenevento.it](mailto:continuita.assistenziiale.emergenza@pec.aslbenevento.it). L'eventuale conferimento dell'incarico verrà notificato agli interessati, a mezzo PEC.

[Modello istanza](#) - [Dichiarazione informativa](#)

[Allegato Graduatoria CA 2020](#) - [Carenze CA 01/10/2021](#) - [Carenze EST 01/10/2021](#)

## Terza dose vaccini per le persone più vulnerabili dal 20 settembre

[17-09-2021]



-  **CENTRALINO 0824.308111**
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## LINEE, ORARI, MEZZI



### TORINO E CINTURA

Metro, Bus, Tram, sfm, collegamento aeroporto



### PROVINCIA E PIEMONTE

Bus, sfm



### RETE NOTTURNA

Bus



### GUARDA LE MAPPE

## BIGLIETTI E ABBONAMENTI



### E-Commerce

Acquista o rinnova online il tuo abbonamento



### Abbonamenti

Per chi usa spesso i mezzi pubblici



### Biglietti

Biglietti di corsa singola, speciali e carnet



### Rivendite ufficiali

Scegli la rivendita più vicina a te

## SERVIZI PER IL TURISMO



### MOLE, SUPERGA, TRAM STORICI

Reggia di Venaria e Castello di Rivoli



## E-Commerce

Acquista o rinnova online il tuo abbonamento

## IN EVIDENZA

Rectangular Snip  
**La tua scelta smart**

## VARIAZIONI TEMPORANEE DI PERCORSO DELLA RETE URBANA

### AVVISI E INFORMAZIONI DI SERVIZIO

tutti gli avvisi

**Novità nei collegamenti di superficie: avanza il progetto con interventi dal 2 agosto e dal 13 settembre**

13-07-2021

**Venaria Express: in vigore il nuovo orario dal 28 settembre**

24-09-2021

**Sospensione della ZTL Centrale prorogata fino al 5 novembre**

16-09-2021

**sfmA: calcolo bonus ottobre 2021**

24-09-2021

**Linea 35N: modifica di percorso nel Comune di Vinovo dal 1° ottobre**

22-09-2021

**sfmA: nuovo orario integrato treni/bus in vigore dal 13 settembre**

08-09-2021

**Da lunedì 23 agosto lavori binari via xx Settembre: deviate le linee 4 – 11 – 11F – 15 – 27 – 55 – 57 – 58 – 58B – 92**

18-08-2021

**Nuove linee e nuovi percorsi GTT: dal 12 luglio il progetto sarà esteso alla città di Torino**

02-07-2021

**SM1 e SM2: due nuove linee per San Mauro e Settimo dal 1° luglio**

30-06-2021

## ACCESSIBILITÀ

Trasporto pubblico  
Servizio prenotazione per  
ferrovie e extraurbano



## BANDI E GARE D'APPALTO

Per lavori servizi e forniture



## PROMOZIONI PER GLI ABBONATI

Le convenzioni per chi usa i mezzi pubblici



## CORSIA RISERVATA

Iscriviti alle nostre Newsletter



## RECLAMO ONLINE

Segnala problemi o disservizi sulla nostra rete



## PAGAMENTO MULTE

Paga la multa per il mancato pagamento del biglietto sui mezzi pubblici



## VIAGGIA INFORMATO

Scarica Telegram e cerca gttorari



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# Hick's Law

- $RT = a + b \log_2 (n)$
- Where “RT” is the reaction time, “(n)” is the number of stimuli present, and “a” and “b” are arbitrary measurable constants that depend on the task and the conditions under which it will be carried out.
- The more stimuli to choose from, the longer it takes the user to make a decision on which one to interact with.
  - Users bombarded with choices have to take time to interpret and decide, giving them work they don't want.

Reaction Time (RT)

Hick's Law

$RT = a + b \log_2 (n)$

RT is the Reaction Time  
(n) is the number of stimuli  
"a" and "b" are constants

Number of options (n)

Bad navigation structure  
<http://www.007museum.com/>

Good navigation, Hick's Law applied  
<http://www.amazon.com>

CERCA  Cerca



# Benvenuti su MONETE D'ITALIA.

- CATALOGO MONETE -  
 Banconote Italiane 1874 - 2001  
 Monete Carlo II D'Asburgo  
 Euro Austria 2002 - 2019  
 Euro Belgio 1999 - 2014  
 Euro Cipro 2008 - 2011  
 Euro Commemorativi  
 Euro Estonia  
 Euro Finlandia 1999 - 2011  
 Euro Francia 1999 - 2016  
 Euro Germania 2002 - 2017  
 Euro Grecia 2002 - 2016  
 Euro Irlanda 2003 - 2013  
 Euro Italia 2002 - 2018  
 Euro Lettonia 2014  
 Euro Lituania 2015 -  
 Euro Lussemburgo 2002 - 2016  
 Euro Malta 2008 - 2018  
 Euro Monaco 2001 - 2020  
 Euro Olanda 1999 - 2017  
 Euro Portogallo 2002 - 2016  
 Euro San Marino 2008 - 2016  
 Euro Slovacchia 2009 -  
 Euro Slovenia 2007 -  
 Euro Spagna 1999 - 2017  
 Euro Vaticano 2002 - 2017  
 Monete Ferdinando IV  
 Quattrini Innocenzo XIII  
 Lire Rep. San Marino 1931 - 2001  
 Lire Vaticano 1929 - 2001

## Cronologia dei maggiori aggiornamenti

**Settembre 2021**  
 Aggiunta e aggiornamento Tabelle EURO Principato di MONACO

**Gennaio 2021**  
 Preparazione/inizio accorpamento graduale dei 2 euro commemorativi per nazione. non più per anno.

**Settembre 2020**  
 Aggiunte nuove monete sez. Utime monete

**Agosto 2020**  
 Tabelle euro Francia - aggiunta 2015-2016 e aggiornamento  
 Tabelle euro Italia - aggiornamento  
 Tabelle euro Malta - aggiunta e aggiornamento

**Gennaio - Luglio 2020**  
 Aggiornamenti Lira/Euro, e Tabelle varie

**Dicembre 2019**  
 Lista di annunciare nuove pubblicazioni di monete nella sezione lira italiana

- #1: Visibility of system status
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The screenshot shows a complex game interface with multiple overlapping windows. Key elements include:

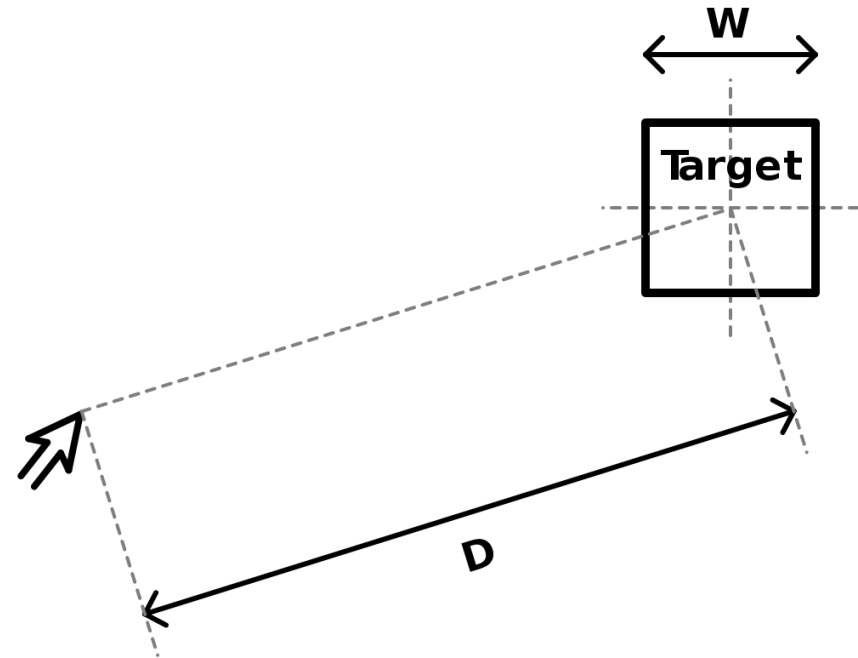
- Informazioni Gilda:** A window displaying guild details for 'SUPERNATURAL' led by '[GM]Winchester'. It lists attributes like level (10), members (2/50), and requirements.
- Handel z [GM]Winchesterka:** A trading window with a grid for items and a status bar showing '0' items and '0' gold.
- Opcje Gry:** A settings menu with options for 'Kolor Nazw', 'Menu Celu', 'Tryb PvP', 'Blokui', 'Linia Czatu', 'Nazwa', and 'Nazwa skleju'.
- Postać:** A character status window for 'SUPERNATURAL [GM]Winchester' showing stats like WIT (107), INT (107), SIŁA (107), ZRE (95), and various skills.
- Przyjaciele:** A friends list window showing '[GM]Winchesterka' as a friend.
- Ekwipunek:** An inventory window showing equipped items and slots for EQ, BS, R, and BP.
- Sklep z Przedmiotami:** A shop window with a list of items and prices.
- Winchester:** A window for the player's name and interface settings.
- Kwota:** A window showing a balance of '1 / 424908462'.

# Fitts' Law

- Index of Difficulty

$$ID = \log_2 \left( \frac{2D}{W} \right)$$

- Time to complete the movement is proportional to ID
  - Large target, near to pointer ✓
  - Small target, far to reach ✗



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## Lab 1 - Hall of Shame and Fame

Report four examples of user interfaces, TWO that you consider a bad design -- for the Hall of Shame -- and TWO that you consider a good design -- for the Hall of Fame.

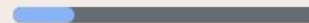
Refer to the assignment (Lab 1) on the course website for further details: <http://bit.ly/polito-hci>

[Cambia account](#)



Il nome e la foto associati al tuo Account Google verranno registrati quando caricherai i file e invierai questo modulo. Il tuo indirizzo email non fa parte della risposta.

Avanti



Pagina 1 di 5

Cancello modulo

Non inviare mai le password tramite Moduli Google.

Questi contenuti non sono creati né avallati da Google. [Segnala una violazione](#) - [Termini di servizio](#) - [Norme sulla privacy](#)

Google Moduli

Booking.com | Sunflowerland | Corso Duca degli Abruzzi, Torino, Piemonte, 10141

Name and location ✓ Property setup ✓ Photos ✓ Pricing and calendar ✓ Legal info ⚠

### Property Details

Where can people sleep?

Living room  
0 beds

Other spaces  
0 beds

[Add bedroom](#)

How many guests can stay?  
- 0 +

How many bathrooms are there?  
- 1 +

How big is this apartment?  
Apartment size – optional  
 square meters

Is anything preventing you from completing your registration at this point?  
[Let us know](#)

Booking.com | Sunflowerland | Corso Duca degli Abruzzi, Torino, Piemonte, 10141

Name and location ✓ Property setup ✓ Photos ✓ Pricing and calendar ✓ Legal info ⚠

### Bedroom 2

Which beds are available in this room?

Twin bed(s)  
35-51 inches wide  
- 0 +

Full bed(s)  
52-59 inches wide  
- 0 +

Queen bed(s)  
60-70 inches wide  
- 0 +

King bed(s)  
71-81 inches wide  
- 0 +

[More bed options](#)

[Cancel](#) [Save](#)

Is anything preventing you from completing your registration at this point?  
[Let us know](#)

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### Rate plans

To attract a wider range of guests, we suggest setting up multiple rate plans. The recommended prices and policies for each plan are based on data from properties like yours, but they can be edited now or after you complete registration.

#### Standard rate plan

Price per group size  [Edit](#)

Occupancy	Guests pay
x 1	€ 55.00

[Edit](#)

Cancellation policy  [Edit](#)

- Guests can cancel their bookings for free up to 1 day before their arrival
- Guests who cancel within 24 hours will have their cancellation fee waived

#### Non-refundable rate plan

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### Cancellation policies

How many days before arrival can guests cancel their booking for free?

**Recommended**  
1 day | 5 days | 14 days | 30 days

**What policy should I choose?**  
Any policy you select now can be easily updated after you complete registration.

**Protection against accidental bookings**  
 On  
To avoid having to deal with accidental bookings, we automatically waive cancellation fees for guests who cancel within 24 hours of booking.

[Continue](#)




- #1: Visibility of system status
- #2: Match system-real world
- #3: User control and freedom
- #4: Consistency and standards
- #5: Error prevention
- #6: Recognition rather than recall
- #7: Flexibility and efficiency of use
- #8: Aesthetic and minimalist design
- #9: Recognize, recover from errors
- #10: Help and documentation

### Sezioni

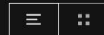
### News

Titolo	Data pubblicazione	Visite
CIRCOLARE N. 52 Avvio anno scolastico 2021/22 - modalità organizzative e indicazioni operative	21 Settembre 2021	Visite: 201
Circolare n° 44 - Protocollo di regolamentazione delle misure per il contrasto e contenimento del Virus Covid - 19	18 Settembre 2021	Visite: 126
circ. 38 indicazioni indirizzi email istituzionali alunni classi prime	16 Settembre 2021	Visite: 249
Circ. 35 bis autodichiarazione da consegnare al docente della 1^ ora	15 Settembre 2021	Visite: 390
CIRCOLARE N. 36 ORARIO INGRESSO CLASSI 16.09.21	14 Settembre 2021	Visite: 420
sanificazione locali scolastici	13 Settembre 2021	Visite: 145
CIRCOLARE N. 34 INGRESSI DIFFERENZIATI DA GIOVEDÌ 16.09.21	13 Settembre 2021	Visite: 313



Film

Generi



Top 10 dei film in Italia oggi



I titoli del momento



Brings to TV Show page

Grid of TV show cards for 'House' and other titles.

- House (Season 1):** Includes a red circle around the title and a red arrow pointing to the 'Riproduci S 2 E 24' button.
- House (Season 2):** Includes a red circle around the title and a red arrow pointing to the 'Plays "next" episode' button.
- House (Season 3):** Includes a red circle around the title.
- House (Season 4):** Includes a red circle around the title.
- House (Season 5):** Includes a red circle around the title.
- House (Season 7):** Includes a red circle around the title.
- House (Season 8):** Includes a red circle around the title.
- House of 9**
- House of Gold**
- House of Wax**
- La Danza Nera**
- Funhouse**
- La Casa de los Carnes**
- Cheap Old Houses**

Mars's Server # generale

CANALI TESTUALI

- # generale
- # aula-studio
- # music

CANALI VOCALI

- General
- AFK

asp che riavvio  
anche su altri server non mi va

21/09/2021

<https://github.com/kokke/tiny-regex-c>

GitHub

**GitHub - kokke/tiny-regex-c: Small portable regex in C**

Small portable regex in C. Contribute to kokke/tiny-regex-c development by creating an account on GitHub.

**kokke/tiny-regex-c**

Small portable regex in C

15 Contributors 14 Issues 816 Stars 115 Forks



DISCORD

Busca o inicia una conversación

Amigos Conectado Todos Pendiente Bloqueado **Añadir amigo**

Amigos

- Nitro

MENSAJES DIRECTOS +

- Harold Jugando a Visual Studio ...
- Golden
- Nero
- kendrick
- MEE6
- contr3r
- marfran3
- RACSO DRAWS 2 miembros
- Luz Cristina Rojas

Voz conectada Escuchar musica / ...

Vídeo Pantalla

TheCRISTL... #7894

CONECTADO — 8

- Arianny Cardenas Conectado
- DianaG Conectado
- Harold Jugando a Visual Studio Code
- JWulen Ausente
- kendrick Conectado
- LeoTutory Conectado
- MASTERLIUD41XY   
Cuanto más difícil es la victoria, mayor felicidad hay en ganar.
- Nero Conectado

ACTIVO AHORA

- Arianny Cardenas, Rythm y 1 perso...   
En un canal de voz
- 6to Informatica   
Escuchar musica
- Harold   
Visual Studio Code - 2 h
- Editing datos.py   
Workspace: PruebaBootstrap   
Tiempo transcurrido: 02:17:24



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